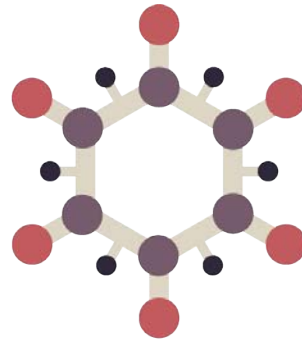


# PneumoSmart Vaccination Tool

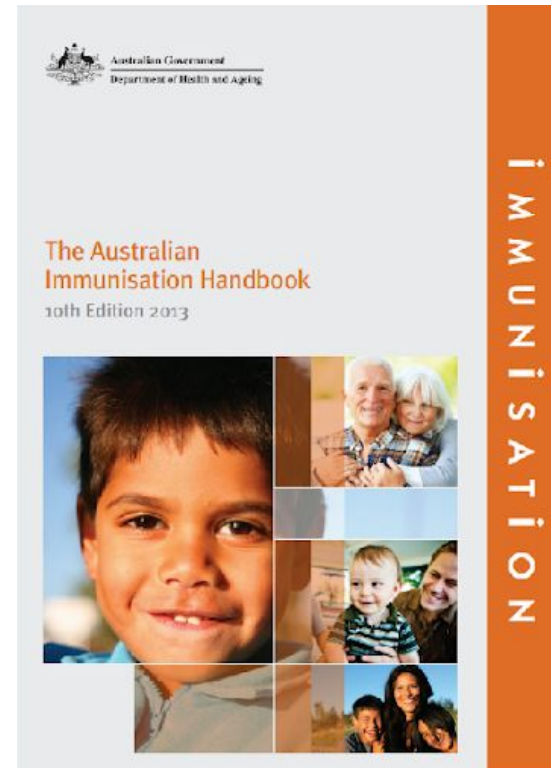
Angela Newbound RN, G.Cert Nurse Education, TAE0116  
Immunisation Coalition member



IMMUNISATION  
COALITION

# Background

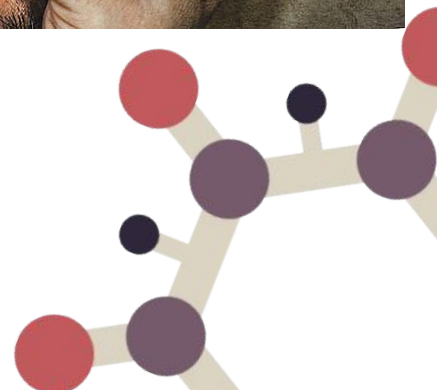
- Release of the 10<sup>th</sup> Edition Australian Immunisation Handbook in 2013:
  - Healthy non-Indigenous  $\geq 65$  recommended 1 dose 23vPPV
  - Healthy Indigenous  $\geq 50$  recommended 2 doses 23vPPV
  - Providers introduced to Category A and Category B medical conditions and 13vPCV for adults
    - Category A recommended 1 dose of 13vPCV and up to 3 doses 23vPPV
      - Some doses funded, some not
    - Category B recommended 0 doses of 13vPCV and 2 or 3 doses 23vPPV depending on age
      - Some doses funded, some not



Category A: Conditions associated with the highest increased risk of invasive pneumococcal disease	
•	Functional or anatomical asplenia (e.g. sickle cell disease)
•	Immunocompromising conditions (e.g. congenital or acquired immune deficiency, immunosuppressive therapy, solid organ transplant, HIV infection, chronic renal failure and other malignancies)
•	Proven or presumptive cerebrospinal fluid leak
•	Cochlear implants
•	Intracranial shunts
Category B: Conditions associated with an increased risk of invasive pneumococcal disease	
•	Chronic cardiac disease (e.g. cyanotic heart disease or cardiac disease)
•	Chronic lung disease (e.g. cystic fibrosis, severe asthma in adults)
•	Diabetes
•	Down syndrome
•	Alcoholism
•	Chronic liver disease
•	Pre-term birth at $<28$ weeks gestation
•	Tobacco smoking

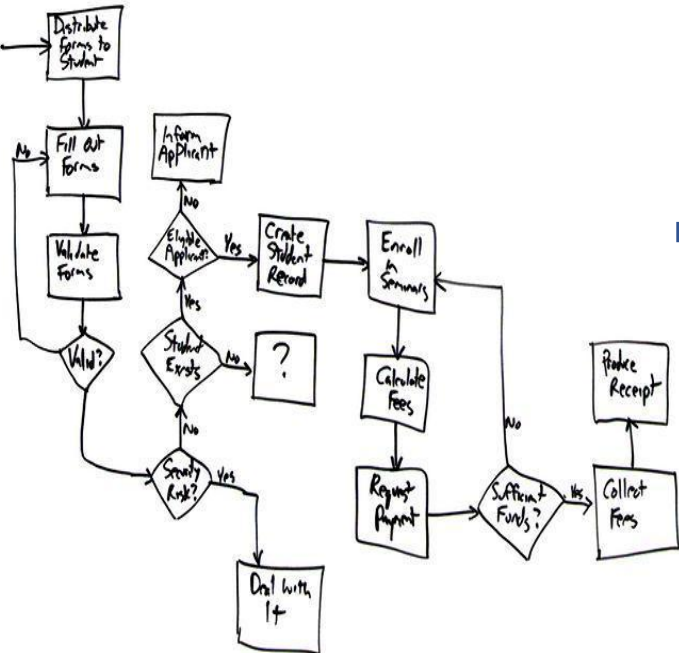
# Background

- Provider education delivered in General Practices in South Australia
  - Consistently found providers were confused
    - Unknown vaccine history –
      - poor patient recall
      - vaccine not able to be reported to ACIR
    - Afraid to 'over-vaccinate' – Significant association between number of 23vPPV doses received and ISR
    - Do I PBS script or is it NIP?
    - Opening 'Pandora's box' in an already busy consultation
      - Need a 'simple tool'



# Development

- Originally planned as a paper version desk-top tool
- Web based tool created in 2013/2014
- 2015 Immunisation Coalition hosted



Does the patient identify as Indigenous? YES

15 to 50 age category

Any Category A condition EXCEPT HSCL

Previous pneumococcal vaccine given after 5 years of age YES

Which vaccine? Polyasaccharide

Current screen:

If the patient has received 23vPPV after 5 years of age but before 15 years of age:

Interval	13vPCV	23vPPV	Comment	Funded
Now	Give		Minimum interval of 12 months since the last 23vPPV dose	Not Funded
2 months		Give	Minimum interval 2 months since last 13vPCV dose and minimum 3 years since last 23vPPV dose	NIP
3 - 10 Years		Give	Minimum interval of 3 years since the last 23vPPV dose	NIP
3 Years or at 10 years of age (whichever is later)		Give	Minimum interval of 5 years since the last 23vPPV dose	NIP

Northern Territory schedule - If the patient has received 23vPPV at 15 years of age:

Interval	13vPCV	23vPPV	Comment	Funded
Now	Give		Minimum interval of 12 months since the last 23vPPV dose	Not Funded
5 Years		Give	Minimum interval of 5 years since the last 23vPPV dose	NIP
10 Years of Age		Give	Minimum interval of 5 years since the last 23vPPV dose	NIP





## 2020 Pneumococcal Vaccination Schedule Changes

### List 1: Risk factors associated with an increased risk of pneumococcal disease and their eligibility for funding under the NIP

Risk condition	Eligibility for NIP funding	
	<5 years of age	≥5 years of age
Previous episode of invasive pneumococcal disease	✓	✓
<b>Functional or anatomical asplenia, including</b>		
– sickle cell disease or other haemoglobinopathies	✓	✓
– congenital or acquired asplenia (for example, splenectomy) or hyposplenia	✓	✓
<b>Immunocompromising conditions, including</b>		
– congenital or acquired immune deficiency, including symptomatic IgG subclass or isolated IgA deficiency	✓	✓
– haematological malignancies	✓	✓
– solid organ transplant	✓	✓
– haematopoietic stem cell transplant	✓	✓
– HIV infection	✓	✓
– immunosuppressive therapy, where sufficient immune reconstitution for vaccine response is expected; this includes those with underlying conditions requiring but not yet receiving immunosuppressive therapy		
– non-haematological malignancies receiving chemotherapy or radiotherapy (currently or anticipated)		
<b>Proven or presumptive cerebrospinal fluid (CSF) leak, including</b>		
– cochlear implants	✓	✓
– intracranial shunts	✓	✓
<b>Chronic respiratory disease, including†</b>		
– suppurative lung disease, bronchiectasis and cystic fibrosis	✓	✓
– chronic lung disease in preterm infants	✓	✓
– chronic obstructive pulmonary disease (COPD) and chronic emphysema		
– severe asthma (defined as requiring frequent hospital visits or the use of multiple medications)		
– interstitial and fibrotic lung disease		
<b>Chronic renal disease</b>		
– relapsing or persistent nephrotic syndrome	✓	✓
– chronic renal impairment – eGFR <30 mL/min (stage 4 or 5 disease)	✓*	✓*
<b>Cardiac disease, including†</b>		
– congenital heart disease	✓	
– coronary artery disease	✓	
– heart failure	✓	
Children born less than 28 weeks gestation	✓	
Troomy 21	✓	
<b>Chronic liver disease, including†</b>		
– chronic hepatitis		
– cirrhosis		
– biliary atresia		
Diabetes		
Smoking (current or in the immediate past)		
Harmful use of alcohol (Defined as consuming on average ≥60 g of alcohol (6 Australian standard drinks) per day for males and ≥40 g of alcohol (4 Australian standard drinks) per day for females)		

\* Funded under the NIP for eGFR <15 mL/min only (including patients on dialysis)

† Individual conditions listed beneath or those that are similar based on clinical judgment

**Note:** All children and adults with above conditions are recommended to receive additional pneumococcal vaccine doses but eligibility for NIP funding is as shown in shaded boxes.

# PneumoSmart

The *PneumoSmart Vaccination Tool* (herein referred to as "the tool") has been created using the pneumococcal disease vaccination recommendations in the online Australian Immunisation Handbook, and has been developed to assist GPs, medical specialists and other immunisation providers to comply with them. As pneumococcal disease vaccination recommendations change, the tool will be updated by clinical experts at the Immunisation Coalition.

Catch-up pneumococcal immunisations for children less than 5 years of age are complex. Appropriate catch-up vaccines should be offered as recommended:

- in the online Australian Immunisation Handbook
- as per the Immunisation Calculator
- catch-up schedule for 13vPCV for Aboriginal and Torres Strait Islander children living in New South Wales, Victoria, Tasmania or the ACT, and all children who do not have risk condition(s) for pneumococcal disease, aged less than 5 years.
- catch-up schedule for 13vPCV for Aboriginal and Torres Strait Islander children living in Northern Territory, South Australia or Western Australia **only**, and all children with risk condition(s) for pneumococcal disease, aged less than 5 years.

## Important information:

If no written records are available to confirm pneumococcal disease vaccination status, or the type of vaccine (Conjugate or Polysaccharide) that may have been previously administered, the provider shall proceed as if the patient has not received previous vaccinations for pneumococcal disease.

☐ I have read and agree to the [Terms and Conditions of use](#) for the PneumoSmart Vaccination Tool.

Proceed

## Patient's Details

Details below are for Clinician reference only and will not be kept in our database records

Full Name

Date of Birth

Next

### Patient's Details

Details below are for Clinician reference only and will not be kept in our database records

Pneumo Coccal

01/01/1978

Next



**Does the patient identify as an Aboriginal and/or Torres Strait Islander Person?**

☐ Yes

☒ No

Next

### Does the patient have one or more of the following conditions?

Type in or scroll through the conditions below and click to select all conditions relevant to the patient.  
Or if none apply type in and select: **None of the above**

Click here to enter a condition

Haematopoietic stem cell transplant

Previous episode of invasive pneumococcal disease

Sickle cell disease or other haemoglobinopathies

Congenital or acquired asplenia (for example, splenectomy) or hyposplenia

Congenital or acquired immune deficiency, including symptomatic IgG subclass or isolated IgA deficiency



### Does the patient have one or more of the following conditions?

Type in or scroll through the conditions below and click to select all conditions relevant to the patient.  
Or if none apply type in and select: **None of the above**

× Previous episode of invasive pneumococcal disease |

Next



Was one or more of the risk factors diagnosed at age 12 months or younger?

☐ Yes☒ No[Next](#)

Has the patient received any pneumococcal vaccine before?

☒ Yes☐ No☐ Unknown[Next](#)

### Which vaccine did the patient receive?

- ☐ Conjugate - 13PCV - Prevenar
- ☐ Polysaccharide - 23PPV - Pneumovax23
- ☐ Both 13PCV & 23PPV (Prevenar & Pneumovax23)
- ☐ Unsure

#### Important Information:

If no written records are available to confirm pneumococcal vaccination status, or the type of vaccine (Conjugate or Polysaccharide) that may have been previously administered, the provider shall proceed as if the patient has not received previous pneumococcal vaccinations.

[Next](#)

### Which vaccine did the patient receive?

- ☐ Conjugate - 13PCV - Prevenar
- ☒ Polysaccharide - 23PPV - Pneumovax23
- ☐ Both 13PCV & 23PPV (Prevenar & Pneumovax23)
- ☐ Unsure

[Next](#)

## Review Details

Patient Name:

**Pneumo Coccal**

Patient Age:

**01/01/1978**

Does the patient identify as an Aboriginal and/or Torres Strait Islander Person: **No**

Conditions:

**Previous episode of invasive pneumococcal disease**

Was risk condition diagnosed on or before 12 months of age:

**No**

Previously Vaccinated:

**Yes**

Which Vaccine:

**Polysaccharide - 23PPV - Pneumovax23**

[Submit Details](#)

[Start Over](#)

## Vaccination Report

Patient Name:

**Pneumo Coccal**

Date of Birth:

**01/01/1978**

Does the patient identify as an Aboriginal and/or Torres Strait Islander person:

**No**

Conditions:

**- Previous episode of invasive pneumococcal disease**

Was risk condition diagnosed at aged 12 months or younger:

**No**

Has the patient received the pneumococcal vaccine before:

**Yes**

Which Vaccine:

**Polysaccharide - 23PPV - Pneumovax23**

### Vaccination Summary

If the patient was diagnosed with risk conditions after 12 months of age and previously received **one dose** of 23vPPV the patient should receive:

When Due	Give	Comment	Funding
Now	13vPCV	Minimum interval of 12 months since the last 23vPPV dose	NIP
5 years later	23vPPV (Dose 2)	Recommended 12 months (2-month interval is acceptable) since last 13vPCV and a minimum interval of 5 years since last 23vPPV dose	NIP

If the patient was diagnosed with risk conditions after 12 months of age and has previously received **two doses** of 23vPPV in their lifetime, the patient should receive:

When Due	Give	Comment	Funding
Now	13vPCV	Minimum interval of 12 months since the last 23vPPV dose	NIP

[Start Over](#)

[Print Summary](#)

[Send Feedback](#)

- Same patient....but we have chosen 'Diabetes' as his diagnosis



PncumoSmart

## Vaccination Report

Patient Name: **Pneumo Cocal**  
Date of Birth: **01/01/1978**

Does the patient identify as an Aboriginal and/or Torres Strait Islander person:  
**No**

Conditions:  
**- Diabetes**

Was risk condition diagnosed at aged 12 months or younger:  
**No**

Has the patient received the pneumococcal vaccine before:  
**Yes**

Which Vaccine:  
**Polysaccharide - 23PPV - Pneumovax23**

### Vaccination Summary

If the patient has previously received **one dose** of 23vPPV the patient should receive:

When Due	Give	Comment	Funding
Now	13vPCV	Minimum interval of 12 months since the last 23vPPV dose	Self-funded
5 years later	23vPPV (Dose 2)	Recommended 12 months (2-month interval is acceptable) since last 13vPCV and a minimum interval of 5 years since last 23vPPV dose	Self funded

If the patient has previously received **two doses** of 23vPPV in their lifetime, the patient should receive:

When Due	Give	Comment	Funding
Now	13vPCV	Minimum interval of 12 months since the last 23vPPV dose	Self-funded

Start Over

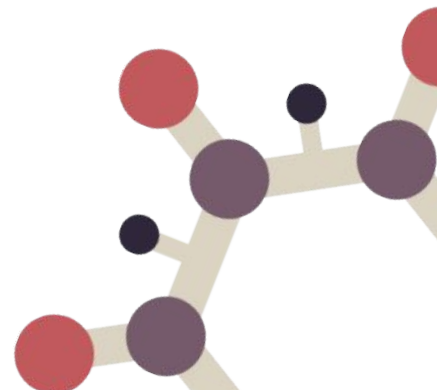
Print Summary

Send feedback





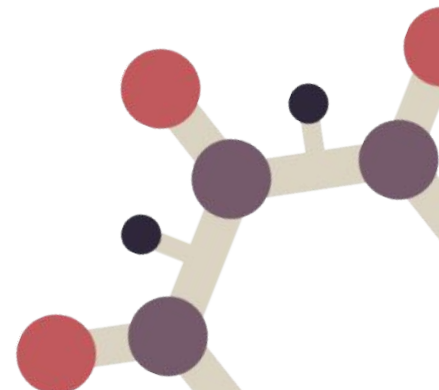
- The Tool is updated by a team of SME's
- Easily accessed
- Quick
- Patients will be appropriately vaccinated



<b>Indigenous Age:</b>	<b>Non-Indigenous Age:</b>
0 – 12 month: 16	0 – 12 month: 33
13 months to 4 years and 11 months: 43	13 months to 4 years and 11 months: 83
5 years to 49 years and 11 months: 224	5 years to 49 years and 11 months: 2,558
50 years and older: 362	70 years and older: 2,812
<b>Indigenous previously vaccinated:</b>	<b>Non-Indigenous previously vaccinated:</b>
Unsure: 13	Unsure: 63
23vPPV: 217	23vPPV: 2,727
Both 13vPCV and 23vPPV: 27	Both 13vPCV and 23vPPV: 226
Not previously vaccinated: 351	Not previously vaccinated: 2,257

# Dat a

- Since 25 October 2020 there has been **6,131 entries**



**Thank you**

**Please don't be shy....use the Tool  
and let us know what you think!**

