

# ADULT IMMUNISATION FORUM

2023

This event will start at 8:30am AWST

22 JUNE 2023

8:30AM–5:00PM AWST



IMMUNISATION  
COALITION

# SESSION 4



Paul Van Buynder

Pneumococcal Disease (PCV  
15, 20, 21)



Angela Newbound

Pneumosmart Vaccination  
Tool (PTV) Update



Robert Booy

Meningococcal Disease



Bruce Langoulant

The Power of Working  
Together

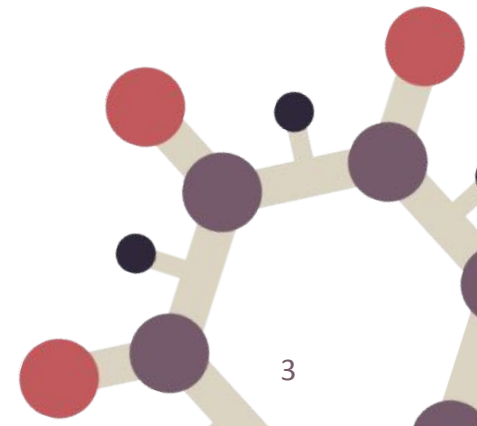
# PneumoSmart Vaccination Tool Update

Angela Newbound RN

G.Cert Nurse Education, TAE0116

Immunisation Education Consultant

Immunisation Coalition Member



# Declarations

Advisory Board Member – Seqirus, Pfizer, GSK, Sanofi, MSD, Moderna

Honoraria received from the mentioned companies

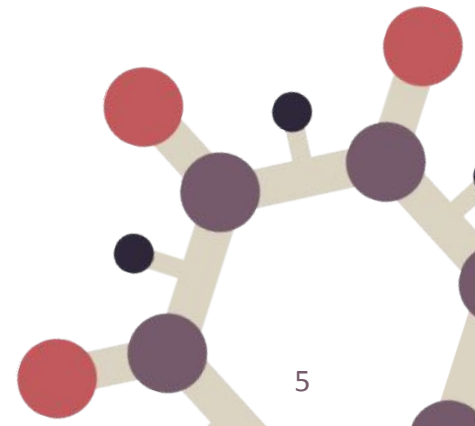
Immunisation Coalition - Member

Immunisation Coordinator - Adelaide PHN

# Learning Objectives

At the conclusion of this session, participants should be able to:

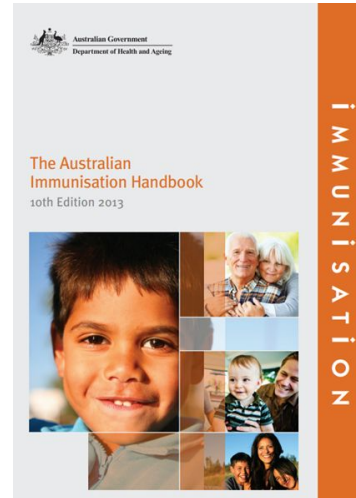
1. Identify 5 medical risk conditions where pneumococcal vaccination is recommended
2. Describe the benefits of using the PneumoSmart Vaccination Tool



# Background

## Release of the 10<sup>th</sup> Edition Australian Immunisation Handbook in 2013:

- Healthy non-Indigenous ≥65 recommended 1 dose 23vPPV
- Healthy Indigenous ≥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 of 23vPPV
    - Some doses NIP funded, some not
  - Category B recommended 0 doses of 13vPCV and 2 or 3 doses of 23vPPV depending on age
    - Some doses NIP 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

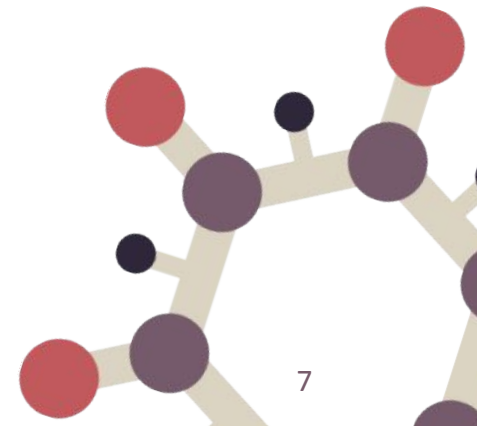
### Category B: Conditions associated with an increased risk of invasive pneumococcal disease

- 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

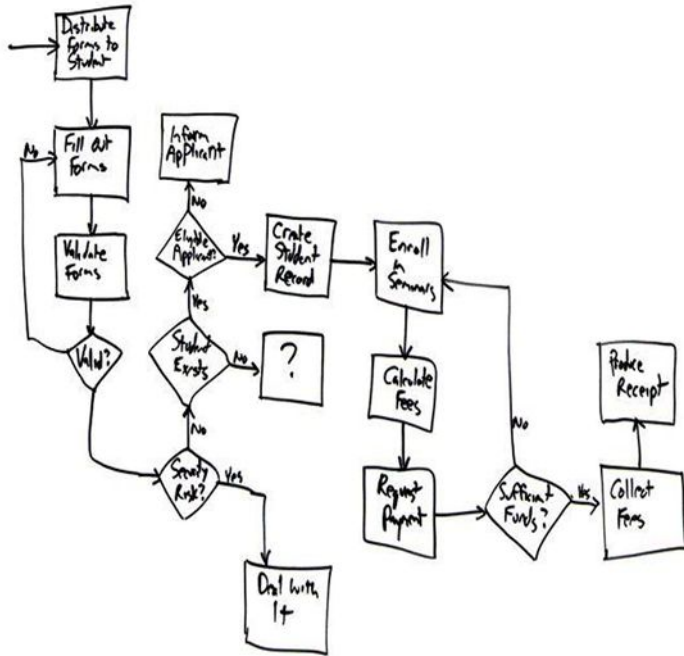
- Consistently found providers were confused
- Unknown vaccine history –
  - poor patient recall
  - vaccine not able to be reported to ACIR (now the AIR)
- Afraid to ‘over-vaccinate’ – Significant association between number of 23vPPV doses received and ISR
- Do I PBS script or is it NIP?
- Opening ‘Pandora’s 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 – Pneumococcal Algorithms Online Tool
- 2015 Immunisation Coalition hosted – PneumoSmart Vaccination Tool (PVT)



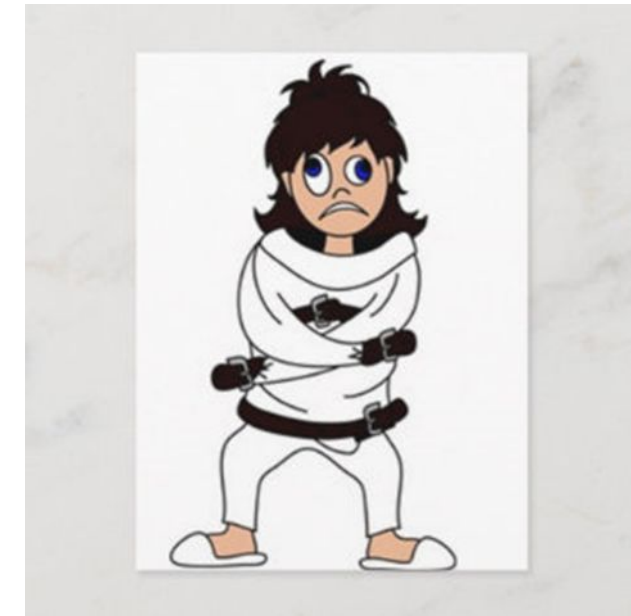
Does the patient identify as Indigenous?\* YES  
 15 to 50 age category  
 Any Category A condition EXCEPT HSCT  
 Previous pneumococcal vaccine given after 5 years of age YES  
 Which vaccine? Polysaccharide

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 5 years since last 23vPPV dose	NIP
5 - 10 Years		Give	Minimum interval of 5 years since the last 23vPPV dose	NIP
5 Years or at 50 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
50 Years of Age		Give	Minimum interval of 5 years since the last 23vPPV dose	NIP

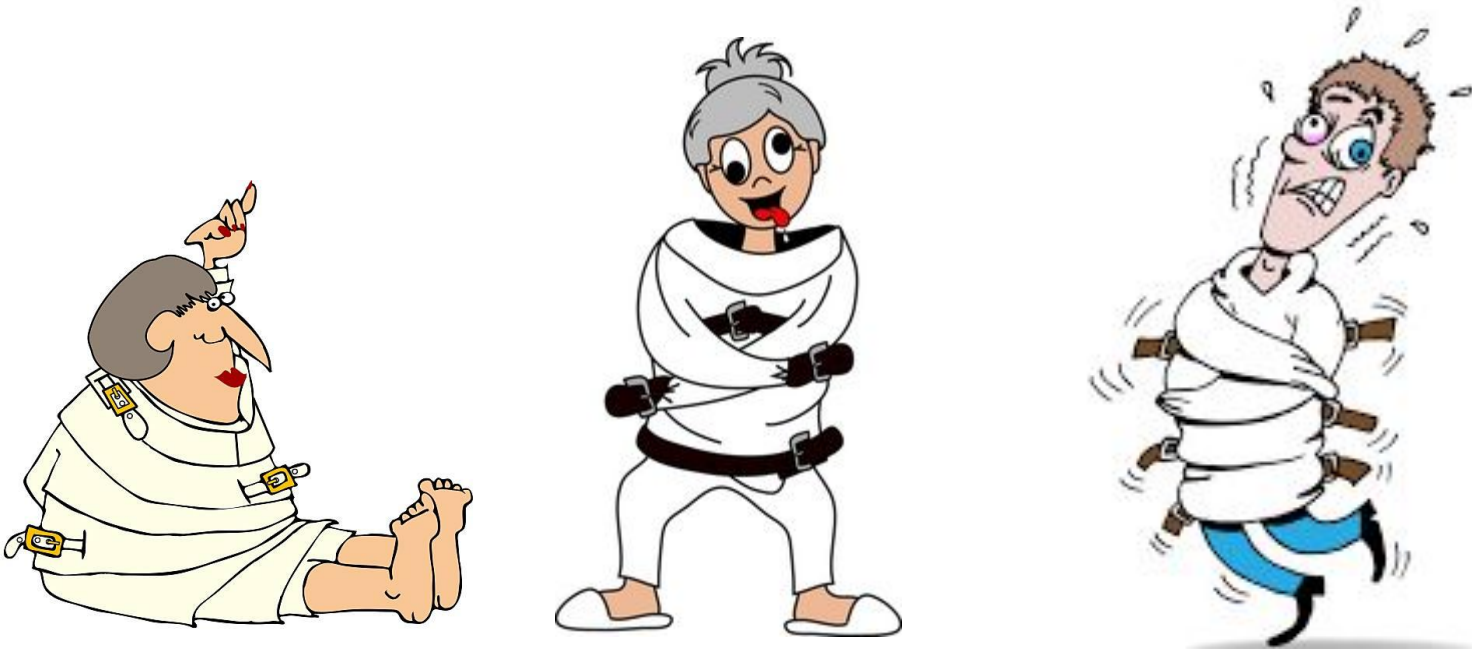




# Development

## 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	✓	
Trisomy 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.

# Development

## 2023 New Pneumococcal Vaccines available

- **15 valent pneumococcal conjugate vaccine**
  - TGA registered for children from 6 weeks of age and adults
  - Current Immunisation Handbook interim recommendation:
    - for use in adults aged  $\geq 18$  years of age
- **20 valent pneumococcal conjugate vaccine**
  - Current Immunisation Handbook interim recommendation:
    - for use in adults aged  $\geq 18$  years of age

# Scenario 1

Gordon Charger is a new patient to your practice. You take a comprehensive medical history, but he cannot recall what vaccines he has previously received. His previous practice closed suddenly 12 months ago, and he is unsure where his medical records went.

DOB 14/09/1956 (66 years of age)

Non-Indigenous

Medical history:

Weight 83kgs	Smoker – approx. 6 cigarettes per day	Social drinker
BP 140/90	Diabetic (diagnosed 6 years ago) – well controlled, on Metformin 850mg BD	

Personal history:

- Accountant
- Married to Jenny for 30 years
- Exercises regularly (Golf, hiking, cycling)

# Scenario 1

You check the AIR for Gordon's vaccine history and find a good vaccine history:

2017 – 2023 - Influenza vaccine every year

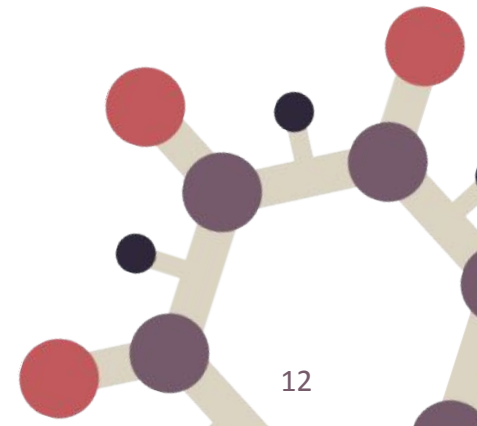
2021 – 2023 - COVID vaccines (primary course and booster doses)

2022 – Boostrix vaccine

But no evidence of pneumococcal vaccination.

Take a look at the PneumoSmart Vaccination Tool

<https://immunisationcoalition.org.au/pvt/>



# Scenario 2

Marigold Bushell is a regular patient to your practice.

DOB 16/02/1976 (47 years of age)

Identifies as Aboriginal and Torres Strait Islander

Medical history:

Weight 62 kgs	Non-smoker	Social drinker
BP 135/75	Severe Asthma on multiple medications Interstitial and fibrotic lung disease Previous episode of pneumococcal pneumonia	

Personal history:

- Registered Nurse
- Divorced

# Scenario 2

You check the AIR for Marigold's vaccine history and find a good vaccine history:

2017 – 2023 - Influenza vaccine every year

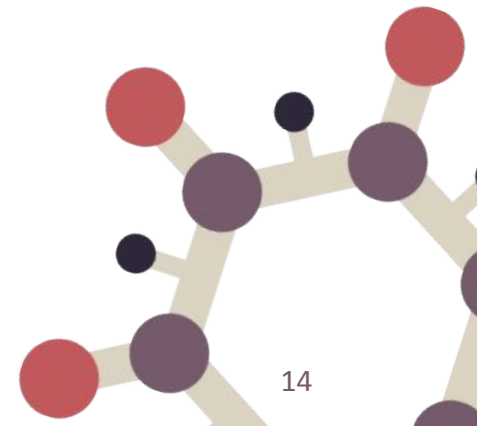
2017 – Boostrix vaccine

2018 – Pneumovax 23 vaccine

2021 – 2023 - COVID vaccines (primary course and booster doses)

Take a look at the PneumoSmart Vaccination Tool

<https://immunisationcoalition.org.au/pvt/>

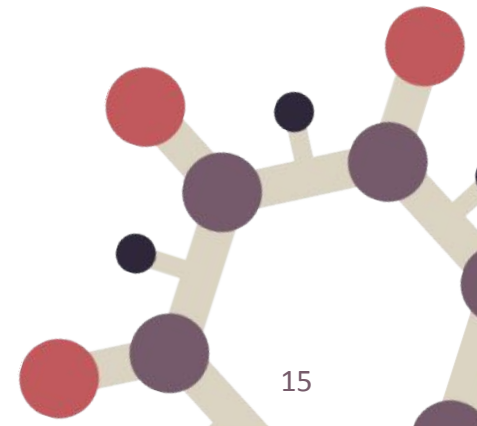




# Outcome



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



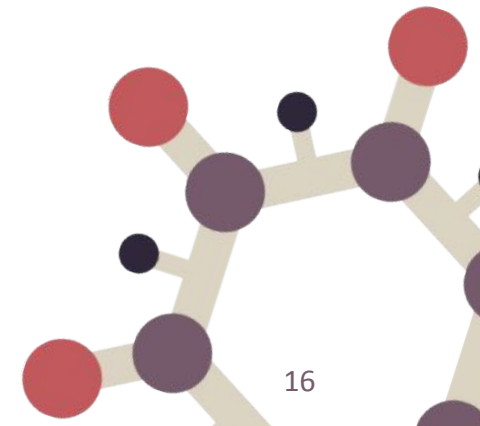


# Outcome

Indigenous Age:	Non-Indigenous Age:
0 – 12 month: 32	0 – 12 month: 104
13 months to 4 years and 11 months: 92	13 months to 4 years and 11 months: 216
5 years to 49 years and 11 months: 615	5 years to 69 years and 11 months: 8,114
50 years and older: 1,073	70 years and older: 10,235

Between 25<sup>th</sup> October 2020 and December 31<sup>st</sup> 2022 there has been **23,300 entries** made in the Tool.

On 25<sup>th</sup> October 2020 the PVT went live with the July updates.



# THANK YOU

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