

Government of Western Australia Child and Adolescent Health Service

Increasing comfort with needle anxiety and medically-at-risk vaccine delivery

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Acknowledgement of Country

The Child and Adolescent Health Service acknowledge Aboriginal people of the many traditional lands and language groups of Western Australia. We acknowledge the wisdom of Aboriginal Elders both past and present and pay respect to Aboriginal communities of today.

Stan Perron Immunisation service



Objective:

- To improve immunisation coverage in WA
- To immunise children, particularly those at increased risk attending PCH
- To establish a multidisciplinary clinic to review:
 - o Children at high risk of vaccine preventable diseases
 - o Children and parents who are vaccine hesitant
 - Children with possible adverse events following vaccines
- To provide a highly visible focus for immunisation delivery, education and research

Stan Perron Immunisation Centre Perth Children's Hospital (SPIC)



Your child's immunisations



Lifts

G

Clinic

VISIT US:

Stan Perron Immunisation Centre, Level 1 Clinic D use the Pink or Yellow Lifts

Open

Monday to Friday 8:30am - 4:00pm (closed on public holidays)

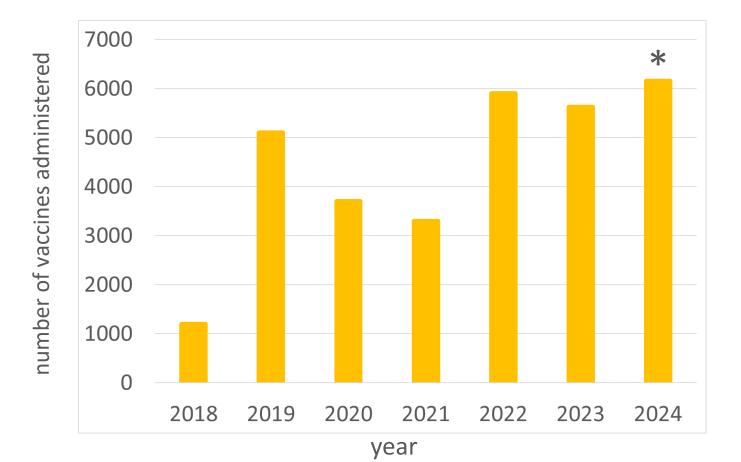
Contact Reception: (08) 6456 3721

Website pch.health.wa.gov.au/Our-services/Immunisation-Service

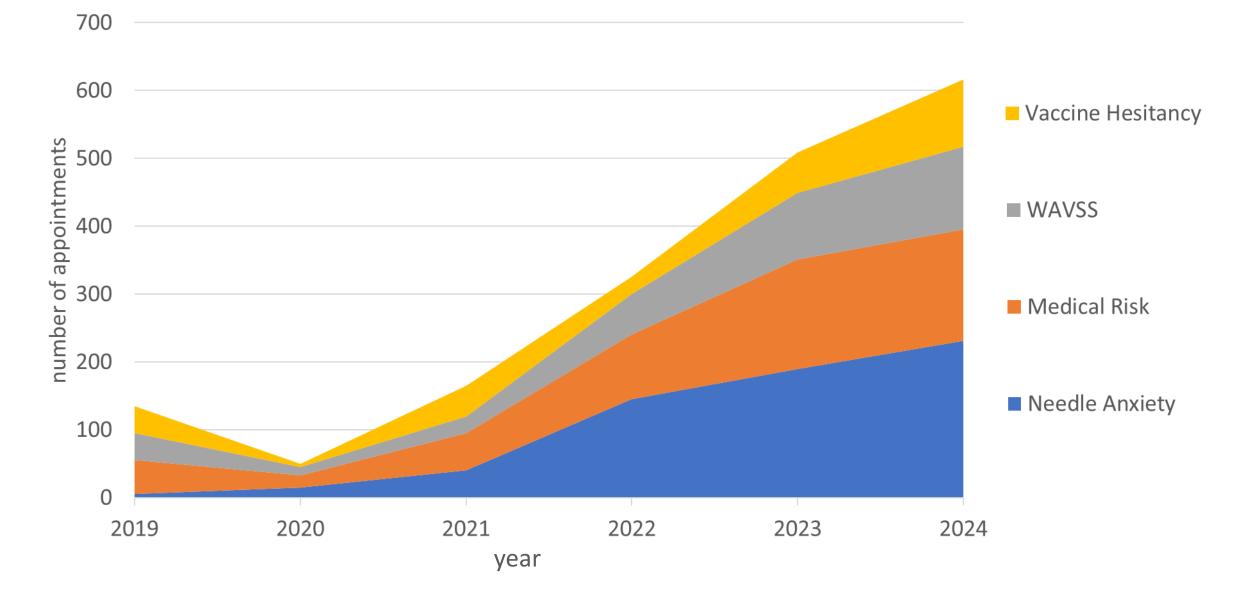
Email PCH.ImmunisationCentre@health.wa.gov.au

Stan Perron Immunisation Centre (SPIC)

Nurse-led administration of scheduled and seasonal vaccines



Specialist Immunisation Clinic activity



Medically at risk

- Inpatient & Outpatient reviews
- Nurse for Aboriginal Families

(Est July 2023, initially funded for 12 months by CDCD) Review of Aboriginal patients attending Outpatient clinics

Nurse for Refugee Health Immunisation

(Est Oct 2024, CDCD funded position) Supports the Refugee Health team, immunisation plans and immunisations administered



Specialist Immunisation Clinic (SIC)

Referral required

- high-risk medical conditions
 individualised immunisation
 plans
- experienced or at risk of Adverse Event Following Immunisation (AEFI).
- Children and adolescents with Needle Anxiety (NA).
- Vaccine hesitant families (consultation and education)
- Children with medical comorbidities requiring travel health advice and immunisation.



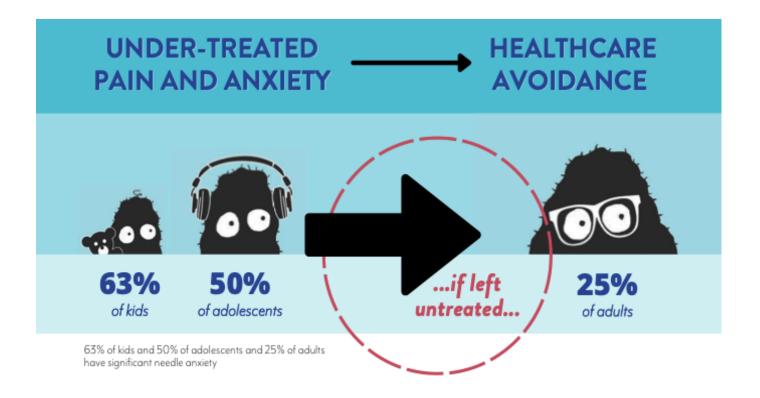
Government of Western Australia Child and Adolescent Health Service

Needle Anxiety

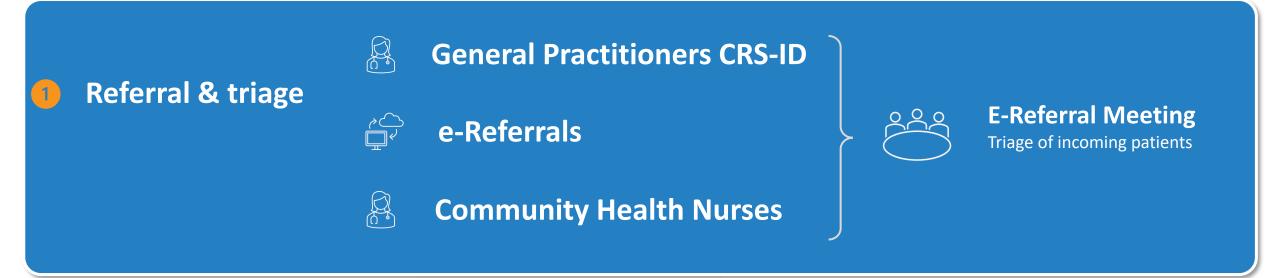
Compassion Excellence Collaboration Accountability Equity Respect

Needle Anxiety Clinic

- The needle anxiety pathway was established at Perth Children's Hospital in February 2022
 - response to the rollout of the paediatric COVID vaccination program
- Most adolescents referred have moderate- severe needle anxiety with co-morbidities



Needle Anxiety Pathway



Needle Anxiety Pathway

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Needle Anxiety 2 **Phone Clinic**

Needle Anxiety Proforma



Child and Adolescent Health Service	Children's Hospital
Specialist Immunisation Clinic – Needle anxiety consult profo	rma
Date & time:	Affix Patient UMRN sticker
Healthcare worker name: Designation:	Med Rec: No:
Patient name	Forename:
DO8 Age	Gender: 0.0.8
Parent(s) name & email	Phone In person

Dorth

1. Immunisations due (Please correlate with AIR record)

COVID vaccine dose 1 COVID vaccine dose 2

WA immunisation schedule vaccine/s

Specify:

2. Previous unsuccessful OR successful (circle) Immunisation attempts

Yes (number of attempts _)

3. Location of previous immunisation attempts (if relevant):

Community immunisation provider Stan Perron Immunisation Centre/clinic

Specify:

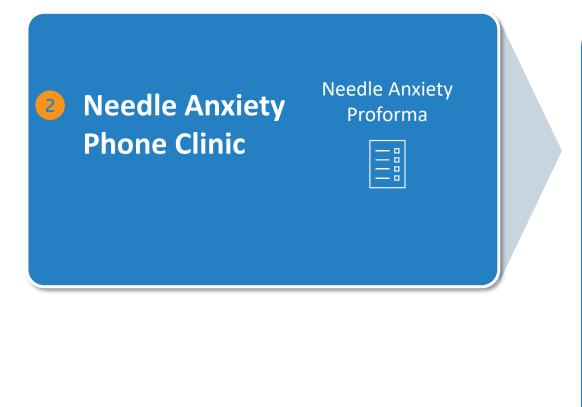
PCH conscious sedation pathway BIP facilitated Stan Perron Immu	nisation Cer	tre/clinic
ipecify:		
I. Any previous syncopal episodes with immunisation attempts:	🗆 Yes	🗆 No
5. Medical comorbidities: ipecify:	□ Yes	🗆 No
i. Neurodevelopmental comorbidities est autism	□ Yes	🗆 No
7. Mental health comorbidities e.g phobias, generalised anxiety disorder ipecify:	□ Yes	🗆 No
	□ Yes	□ No
 Family history of needle anxiety or parental mental health issues ipecify:	🗆 Yes	🗆 No

10. Previous treatment for	r needle anxiet	b
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Cther, specify Follow up

and Previous Description for meetic encody.
None SPIC/K Kind involvement PCH BIP Robin Winkler UWA Clinic
Conscious sedation pathway Private psychology CAMHS
Other, Specify
Medications:
Allergies:
Patient's weight:
Impression
mild needle anxiety moderate needle anxiety severe needle phobia
Plan
Immunisations in SPIC (send this proforma electronically to <u>PCH ImmunisationCentre@health wa.gov.au</u> and store in W drive W.Vmmunisation/PMH/Patient Services/Patient Files + (<u>mm</u> _clatch-up Templates. Once an appointment time and date is communicated from SPIC <u>PCH ImmunisationCentre@health wa.gov.au</u> send an E referral to Occupational therapy (K KIND) with the proforma attached and appointment time and date for SPIC)
Triage: category 1 category 2 category 3
PCH blood injury injection program (BIIP)
Robin Winkler UWA Clinic
Other psychology service
Conscious sedation pathway Conscious sedation pathway (eligibility criteria are recommended but not limited to: history or autism with severe needle phobia, attempts with SPIC/XIXIND and failed, multiple attempts in the community with distraction tools or other tools in place)
Triage: category 1 category 2 category 3
Wait and reassess in 6-12 months' time

Needle Anxiety Pathway



Treatment options assessed

- 1. Stan Perron Immunisation Clinic walk-in
- → 2. Booked appointment KKIND referral

- → 3. Nitrous Oxide
 - consent for procedure
 - Day Treatment Unit
- → 4. Procedural sedation service (PSS)
 - consent for procedure, referred to anaesthetics
 - ward 3C surgical short stay ward

KKIND – keeping kids in no distress

All patients referred for Occupational Therapists for intake call

KKIND (Keeping Kids in No Distress)

Additional history taken over the phone

Potential strategies to assist discussed

Patient attends booked appointment (1 hour new or 30 mins follow-up)

- Buzzy bee
- Smiley scope
- Fidget toys
- Visualisation
- Remember come dressed to be immunised
- All appointments should end positively
- Two clinics per week: Immunisation nurse led (2 patients), KKIND and Immunisation nurse (2 patients)







What can help?

- Individualised care for each child
- Parental knowledge
- Expectations
- Have a Plan
- Choices
- Social stories
- Have the time
- Language
- Information
- Positive reinforcement
- Being calm is contagious
- 'Helpers' EMLA, Buzzy
- Distractions Smileyscope
- Come dressed to be vaccinated



POKE PLAN

Choose all the things below that will help you be more calm and comfortable during your poke...

HERE'S WHAT I WANT TO KNOW:

I WANT MY GROWNUP TO:

Let me sit on their lap
 Sit or stand next to me
 Hold my hand
 Rub my head

Something else: .

HERE'S WHAT I WANT TO USE TO HELP FEEL MORE COMFORTABLE:

- □ Buzzy: vibration blocks the ouch signal
- Shotblocker: little nubs block the ouch signal
- □ Numbing Cream: it numbs my skin
- Breathing: deep breaths relax me and turn down pain signals
- Distraction: focusing on something else helps a lot!

I WANT TO:

- □ Watch the poke
- □ Look away / close my eyes
- □ Watch something on a phone / tablet
- □ Listen to music / headphones
- □ Something else: _____

AFTER I'M ALL DONE I WANT TO:

Nitrous Oxide

- co-ordinated with Day Treatment Unit staff availability.
- once triage phone calls completed, waitlist only a few weeks.
- quick onset quick off
- need degree of patient compliance



Procedural Sedation

Aim for patient to be conscious
NOT a general anaesthetic





OI



WARD	Service: PCH	ADDITIONAL W Fluid D Inhelation Post op HB	CI DOL	Jinsu¥n motherapy F	D Acute Pr					
Date Preacticed	Medication (Print Generic Name)	Route	DOSE	Date/Time to be given		writer	DOSE calc e.g. mg/kg	Given	Cate/Itme Given	Pharm
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acility/Service: PCH				ADDITIONAL CH	ARTS	
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VARD/UNIT: 3C -	PSS			Climbalation.	C Chemotherapy	D Pallation Care
NCE ONLY MEDICINE	A REAL PROPERTY.			D Post op N&V	D Other	
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5/11	KETAMINE	10	250 m	3.5m	y STAT	ho h	country	sight	1016	
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TELEPHONE ORDERS (To be signed within 24 hrs of order

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Who do we see:

Age (years), median (IQR)	12.8 (11 - 14)				
S	Sex female, n (%)	73 (47)				
Severity of needle anxiety	Mild	17 (11)				
n (%)						
	Severe	64 (41)				
	Unknown/not recorded	12 (8)				
Co-morbidities n (%)	≥2 of below conditions	54 (35)				
	Nil	53 (34)				
	Autism	51 (33)				
	Attention deficit hyperactivity disorder	46 (30)				
	Anxiety	43 (28)				
	Depression	3 (2)				
	Post-traumatic stress disorder	2 (1)				
Vaccines due n (%)	Scheduled and COVID-19 vaccination					
	and/or influenza	93 (60)				
	COVID-19 vaccination and/or Influenza	37 (24)				
	Scheduled (National Immunisation					
	Program)	24 (16)				

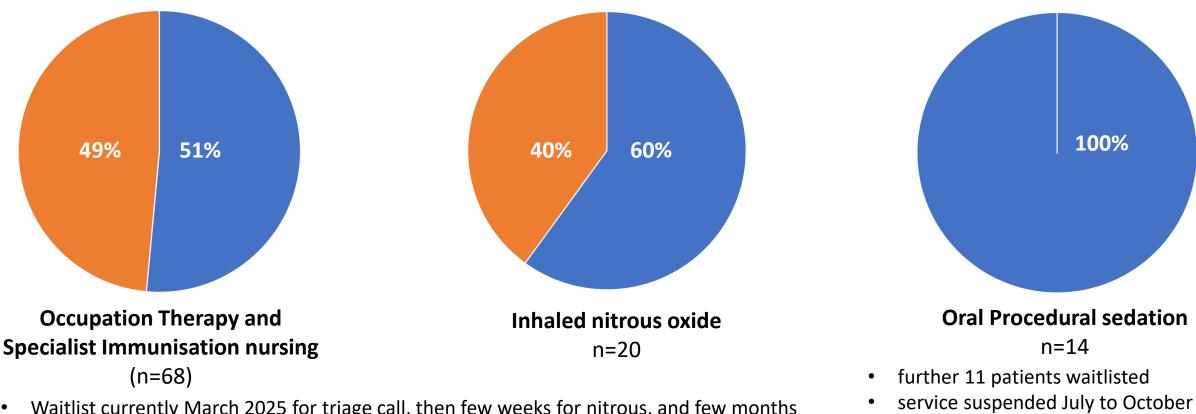
Patient demographics – Feb 2022 to Jan 2023, n=155

* PCH Executive approval required for patient admission ≥16 years of age

C Jepp, B Watson 2023

Outcomes from Needle Anxiety pathways (2024)

Vaccinated
Unvaccinated



- Waitlist currently March 2025 for triage call, then few weeks for nitrous, and few months for KKIND/SPIC
- clinics now fortnightly

due to winter surge

new bookings ~March 2025

Resources

Site Finder | Policies | Forms

HealthPoint Perth Children's Hospital Working@PCH Home News Directory Integrity Workspaces Policies MY INFORMATION HUB: Perth Children's Hospital Needle phobia Immunisation L Stan Perron Immunisation Vaccination is a common procedure performed in our community and for most, the discomfort is short lived. Needle phobia is an extreme fear of medical procedures involving injections and the true incidence of this condition is unknown. Centre The DSM-IV classifies needle phobia as part of a group of specific phobias of blood-injection-injury (B-I-I) type. This group is classified as a discrete L Specialist Immunisation Clinic subtype of phobia owing to the very high familial links, and often extreme vasovagal response to the stimuli¹ L Immunisation A - Z Needle phobia without the vasovagal response has often arisen from a situation where classical conditioning has occurred¹. For example, a patient who recalls being held down as a child while receiving vaccinations, will have learned a paired association of 'needles plus doctor/nurse equals pain and L WA Immunisation Schedule distress'1. The Specialist Immunisation Clinic and the Keeping Kids in No Distress (KKIND) service at Perth Children's Hospital take referrals for children with L Immunisation guidelines and severe needle phobia who are unable to be vaccinated in the community. The Specialist Immunisation Clinic requires a medical referral using the E policies referral system. L The Australian Immunisation Useful resources for needle phobia and anxiety handbook (external link) L Immunisation Education App for practicing mindfulness: Stop, Breathe & Think Kids Hack The Vax | Strategies to Reduce Stress of the COVID-19 Vaccine L Back up to Infectious Diseases Meg Foundation (megfoundationforpain.org) Department ImaginAction(stanford.edu) Needle phobia -The Melbourne Vaccine Education Centre (MVEC) (mcri.edu.au) The Conversation: Is your child frightened of needles? Here's how to prepare them for their COVID vaccine L Immunisation service at PCH Having a poke plan or a procedural support plan may assist Buzzy Bee PCH_KKIND kit - distraction items CAHS 692 At the Hospital Helping your Child Cope

CAHS 693 At the Hospital Helping your Teen Cope

PCH Clinical Holding guideline



Q.

Find content, people, services



Resources



HOME OUR VISION RESOURCES ~ CONTACT WORKSHOPS

Creating positive medical experiences for children and young adults through Effective Peri-Procedural Communication (EPIC).







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Medically at Risk

Compassion Excellence Collaboration Accountability Equity Respect

Identifying Medically at Risk patients in the hospital

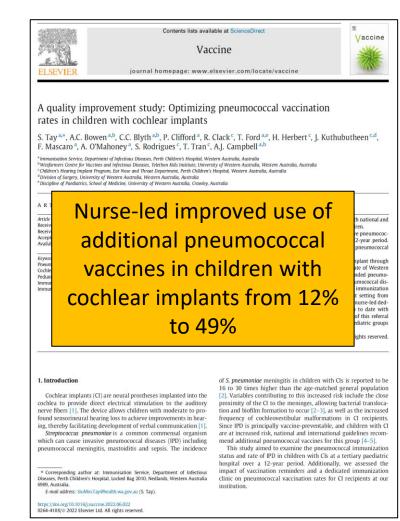
Inpatient Immunisation Reviews
 opportunistically identifying medically at
 risk patients, review <5yrs</p>

 Outpatient Immunisation Reviews. Targeted review of patients attending appointments at PCH: Cardiology, Cystic Fibrosis, Bronchiectasis, Pre-term, Trisomy 21, Renal.

 Stan Perron Immunisation Centre. Prevaccination checklist, chronic medical conditions

Medically at risk targeted programs

- Developing targeted programs to identify under vaccinated children with:
 - Asplenia
 - Cochlear implants
 - Oncology/post transplant setting
 - Chronic lung disease
 - Trisomy 21
 - Immunodeficiency



Additional vaccines for MRC

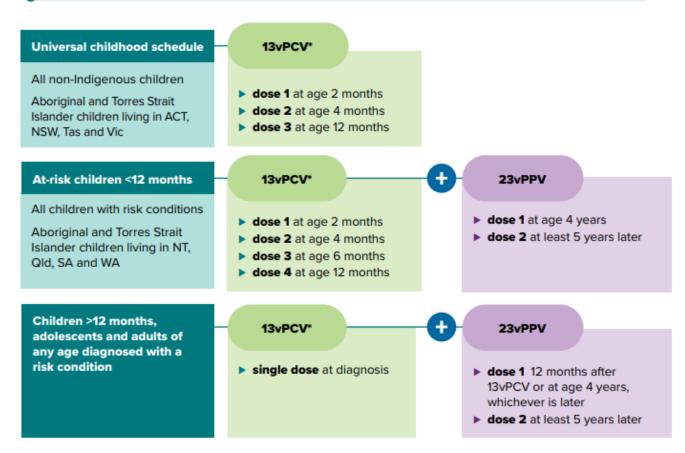
- pneumococcal vaccine
- meningococcal vaccines
- hepatitis B
 - (preterm < 32 weeks, low birth weight)
- influenza
- nirsevimab (second year cohort)



		Childhood	
Age and eligibility	Antigen/Antibody	Brand(s)	Important information
Birth to <7 days	Nirsevimab	Beyfortus®	Babies born 1/5/24 to 31/3/25 and residing i or about to imminently reside in, the Kimber or Pilbara region
	Hepatitis B	H-B-Vax [®] II Paed or Engerix [®] B Paed	
6-8 weeks	DTPa-hepB-IPV-Hib	Infanrix [®] hexa or Vaxelis [®]	
	13vPCV	Prevenar® 13	
	Rotavirus	Rotarix®	Oral dose 1: Must be given by 14 weeks of a
Aboriginal and/or MRC	MenACWY	Nimenrix®	
Aboriginal and/or MRC	MenB	Bexsero [®]	Prophylactic paracetamol recommended
4 months	DTPa-hepB-IPV-Hib	Infanrix [®] hexa or Vaxelis [®]	
	13vPCV	Prevenar® 13	
	Rotavirus	Rotarix®	Oral dose 2: Must be given by 24 weeks of a
Aboriginal [®] and/or MRC	MenACWY	Nimenrix®	
Aboriginal and/or MRC	MenB	Bexsero®	Prophylactic paracetamol recommended
6 months	DTPa-hepB-IPV-Hib	Infanrix [®] hexa or Vaxelis [®]	
Aboriginal and/or MRC	13vPCV	Prevenar® 13	
MRC	MenB	Bexsero®	Prophylactic paracetamol recommended
	MenACWY	Nimenrix®	
12 months	MMR	MMRII® or Priorix®	
	13vPCV	Prevenar® 13	
	MenACWY	Nimenrix®	
Aboriginal and/or MRC	MenB	Bexsero®	Prophylactic paracetamol recommended
MRC	Hepatitis B	H-B-Vax [®] II Paed or Engerix [®] B Paed	<32 weeks gestation or <2000g birth weight
18 months	DTPa	Infanrix [®] or Tripacel [®]	1
	Hib	ActHIB®	
	MMRV	Priorix-Tetra®	Do not adminster MMRV as dose 1 of a measles-containing vaccine if <4 years of ag
Aboriginal	Hepatitis A	Vaqta® Paed/Adol	Dose 1 of 2. Dose 2 to be administered at least 6 months after dose 1
<2 years Aboriginal	Catch-up for MenB is	available for Aboriginal child	ren <2 years of age
4 years	DTPa-IPV	Quadracel [®] or Infanrix [®] IPV	
Aboriginal	Hepatitis A	Vaqta® Paed/Adol	Not required if previously received 2 doses (fin dose at age ≥12 months) at least 6 months ap
Aboriginal and/or MRC	23vPPV	Pneumovax23®	Dose 1 (if not previously administered). Dos 2 should be administered at least 5 years lat

pneumococcal vaccination for MRC

People with certain conditions have an increased risk of pneumococcal disease. They need extra doses of vaccines to optimise protection.



Risk conditions for pneumococcal disease include:

- previous episode of invasive pneumococcal disease
- immunocompromising conditions, including asplenia
- CSF leak
- chronic respiratory disease
- chronic kidney disease
- chronic liver disease
- cardiac disease
- extremely premature birth
- trisomy 21
- diabetes
- smoking
- harmful use of alcohol

See the Australian Immunisation Handbook for the full list of risk conditions, including which conditions are funded under the National Immunisation Program.

How to identify MRC in the community

- pre-vaccination check list including MRC
- Aboriginal or Torres Strait Islander background
- seek opportunistic encounters

*nirsevimab - greatest coverage in birth cohort immunised before discharge home, and those presenting for NIP vaccines



								_
	Child and Adolescent Health Service Perth Children's Hospital		N	led Re	c. No:		EL HERE	
	PRE-VACCINATION CHECKL	IST						
			G	ender	Ar	D.O.B		
2182	Parent / legal guardian please answer the f Immunisation Nurse once complete.	follow	ing q	uesti	ons and si	gn. Return t	to the	
0222	Patient Name (print):					DOB	1 1	
đ								
	MEDICARE NUMBER:							
	Does your child have any of the following?	YES	NO	N/A		DETAIL	S	
	A fever today (38.5 degrees or more)							
+	A medical condition or is on treatment which lowers immunity?							
	A history of a severe reaction following any previous vaccine?							
	Any severe allergies to anything?							
GIN	Any medical condition or chronic illness?							
3 MAF	A bleeding disorder?							
NON	A history of Guillain-Barré syndrome?							1
DO NOT WRITE IN BINDING MARGIN	A history of intussusception (the bowel telescoping into itself) or other congenital bowel problems?							
DO NOT	Born at less than 32 weeks gestation OR with a birth weight of less than 2000 grams?							
	If less than 12 months of age, was there any medication taken during pregnancy that lowered immunity?							
+	Received any blood products or immunoglobulin within the past year?							
	Received the measles / mumps / rubella or varicella vaccine in the previous 4 weeks?							
	If of reproductive age, is there a possibility of pregnancy?							
	Does your child identify as Aboriginal or Torres Strait Islander?							
	Is your child under guardianship of the Department of Child Protection? If so, have you evidence of consent?							
	Has your child received Paracetamol today?							
	Do you understand the information provide	ed to	you?		YES	NO		Ĩ
50	PARENT / LEGAL GUARDIAN							
HCHPCFMR0303	NAME:			_ S I	GNATURE:			000
PC763 04/22	MOBILE PHONE:				DATE:			
we want to be a								

Risk conditions for which meningococcal, pneumococcal and Hib vaccines are recommended and funded

	R	ecommended vacci	ne		R	ecommended vaccin	10
Condition	Pneumococcal vaccines – 13vPCV and 23vPPV	Meningococcal vaccines – MenB and Men ACWY	Hib vaccine	Condition	Pneumococcal vaccines – 13vPCV and 23vPPV	Meningococcal vaccines – MenB and Men ACWY	Hib vaccine
Previous episode of invasive pneumococcal disease	*			Chronic renal disease			
Functional or anatomical asplenia, including				 relapsing or persistent nephrotic syndrome 	1		
- sickle cell disease or other haemoglobinopathies	4	1	√8	 – chronic renal impairment – eGFR <30 mL/min (stage 4 disease) 	✓*		
 – congenital or acquired asplenia (for example, splenectomy) or hyposplenia 	×	~	√\$	Cardiac disease, including ¹			
Immunocompromising conditions, including				- congenital heart disease	✓†		
- congenital or acquired immune deficiency, including symptomatic IgG				- coronary artery disease	√ †		
subclass or isolated IgA deficiency	×			– heart failure	à		
- haematological malignancies	1			Children born less than 28 weeks gestation	√ †		
– solid organ transplant	1			Trisomy 21	à		
- haematopoietic stem cell transplant	×	×	×	Chronic liver disease, including			
- HIV infection	×	×		- chronic hepatitis	×		
 immunosuppressive therapy, where sufficient immune reconstitution for vaccine response is expected; this includes those with underlying 	~			– cirrhosis	· ·		
conditions requiring but not yet receiving immunosuppressive therapy				- biliary atresia	×		
 non-haematological malignancies receiving chemotherapy or radiotherapy (currently or anticipated) 	×			Diabetes	1		
Proven or presumptive cerebrospinal fluid (CSF) leak, including				Smoking (current or in the immediate past)	✓	√ #	
- cochlear implants	1			Harmful use of alcohol [‡]	×		
- intracranial shunts	× ×			Defects in, or deficiency of, complement components, including factor H, factor D or properdin deficiency		~	
Chronic respiratory disease, including ¹				Current or future treatment with eculizumab (a monoclonal antibody directed against complement component C5)		~	
- suppurative lung disease, bronchiectasis and cystic fibrosis	×			ote: ✓Recommended; shaded boxes indicate eligibility for NIP funding.			
- chronic lung disease in preterm infants	✓						
 – chronic obstructive pulmonary disease (COPD) and chronic emphysema 	1			-			
 severe asthma (defined as requiring frequent hospital visits or the use of multiple medications) 	~			_		айн 🚍	

*MRC as listed in Aust. Immunisation Handbook.

interstitial and fibrotic lung disease



Government of Western Australia Child and Adolescent Health Service

Acknowledgements

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