Stan Perron Immunisation Service

First Annual Activity Report

2018
Contents

Overview of Stan Perron Immunisation Service........................................ 2

Five-year key goals.................................................................................. 2

Core activity 1 – Stan Perron Immunisation Centre............................... 3

Core activity 2 – Specialist Immunisation Clinic................................. 5

Core activity 3 – Immunisation for inpatients...................................... 6

Core activity 4 – Targeted influenza immunisation program............... 7

Core activity 5 – Immunisation safety surveillance and research........ 8

Core activity 6 – Education and resources.......................................... 9

Core activity 7 – Community and key stakeholder engagement......... 10

Acknowledgements................................................................................ 11
Stan Perron Immunisation Service at Perth Children’s Hospital

The launch of Western Australia’s first dedicated immunisation service embedded in a tertiary children’s hospital commenced initially at Princess Margaret Hospital for Children (PMH) in December 2017, followed by the expansion of the service at Perth Children’s Hospital (PCH) on 11 June 2018.

The service aims to improve immunisation coverage rates for some of WA’s most vulnerable medically at-risk children and ensure equity to immunisation services for all families.

A dedicated and skilled multi-disciplinary team of medical, nursing and clerical staff provide a highly-visible focus and state-wide leadership in areas of immunisation delivery, education, research and advocacy.

The Stan Perron Immunisation Centre was formally launched at PCH on 14 August 2018, by the Hon. Roger Cook, Deputy Premier; Minister for Health; Mental Health and the late Mr Stan Perron and Mrs Elizabeth Perron. The Centre has been generously supported by the Stan Perron Charitable Trust.

Front row, from left: Hon. Roger Cook, WA Minister for Health; Mr Stan Perron, Founder and former Chair of the Perron Charitable Trust; Ms Debbie Karasinski, CAHS Board Chair

Back row, from left: Dr Anita Campbell, Medical Lead Immunisation Service PCH; Assoc. Professor Christopher Blyth, Head of Department Infectious Diseases PCH; Mrs Elizabeth Perron, Director Stan Perron Charitable Trust; Ms Filomena Mascaro, Clinical Nurse Consultant Immunisation service PCH; Ms Patricia Clifford; Immunisation Nurse PCH

Five-year key goals

Our mission is to provide every child and their family with the opportunity to benefit from a dedicated immunisation service at Perth Children’s Hospital. This commitment is targeted to the following goals:

1. Provide free and timely immunisation for all children and their families attending Perth Children’s Hospital, who are due or overdue routine vaccinations that are recommended on the national or state immunisation schedule.

2. Ensure children with individualised and complex immunisation requirements have their needs met through the nurse-led Stan Perron Immunisation Centre and or the medically-led Specialist Immunisation Clinic, including children with lowered immunity, underlying medical issues and families with vaccine hesitancy.

3. Provide the seasonal influenza vaccine for children at-risk, including those with medical co-morbidities through a dedicated Influenza Immunisation Program.

4. Provide leadership and commitment to preventative child health through core activities, including immunisation research and providing evidence-based immunisation education, resources and guidelines.

5. Ensure surveillance of all adverse events following immunisation (AEFI) occurring in children and adults are reported, monitored and followed-up in real time through the state-wide and national adverse events reporting program and the Specialist Immunisation Clinic.
The Stan Perron Immunisation Centre promotes accessibility and ease for children to get their immunisation needs met with no appointment, fee or referral required. Led by an specialist clinical nurse consultant and certified immunisation nurse provider, the centre offers immunisations on the WA immunisation schedule and education on current evidence-based recommendations.

Over a 28-week period, from the opening of the Stan Perron Immunisation Centre in June 2018 until December 2018, a total of 1371 vaccines were administered to 786 individuals (Figure 1). On average 196 vaccines have been administered to 112 individuals per month. This includes immunisation service delivery to siblings, parents and carers attending the centre for scheduled vaccinations including influenza, pertussis and meningococcal vaccines.

The centre receives an average of 10-15 telephone calls a day advising clinicians and the public on best-practice immunisation recommendations.

It has also been involved through partnership with the WA Department of Health in the provision of immediate public health measures to families requiring post exposure protection with immunoglobulin and or immunisations for notifiable vaccine preventable diseases including meningococcal disease, hepatitis A and measles.

Figure 1: Number of patients immunised, individual vaccines, and influenza delivered over a 28 week period in 2018

Immunisation Clinic Nurse Patricia Clifford with patient Oliver O'Toole and mum Jenny Elliot
Service delivery strategies
Partnership with healthcare providers

A core activity of the Stan Perron Immunisation Centre is a daily immunisation status check of both inpatients and targeted high-risk outpatient clinics, using the Australian Immunisation Register. Medical and nursing staff then receive a notification via the hospital's electronic communication system that identifies under-vaccinated patients and provides the opportunity for these children to attend the immunisation centre.

For children with chronic respiratory illness, immunisation is extremely important. The PCH immunisation service enables us to send patients immediately for vaccination rather than asking parents to arrange a GP appointment. This maximises the uptake of the flu vaccination and helps to prevent unnecessary illness and hospitalisation in children at significant risk.

Dr Andrew Wilson, Consultant Paediatrician and Head of Department Respiratory Medicine, Perth Children's Hospital.

Partnership with the community

For approximately 800-1000 daily outpatient appointments at PCH, automated text message appointment reminders are sent within days of the appointment. The Immunisation Service has developed a short text-message that follows, reminding parents of the new Immunisation facility. During the influenza season, availability of the Influenza vaccination program at PCH was also included.

“Visiting the Stan Perron Immunisation Centre within the Perth Children's Hospital has been so convenient for us. No appointment necessary and the opportunity to ensure my child is protected with all the necessary vaccinations that are available at the Centre. The staff at the desk are welcoming and the beautiful nurses are so informative and knowledgeable. We had a conversation regarding the flu and ACWY Meningococcal vaccinations which enabled me to make an informed decision in order to protect my child. I would highly recommend the Centre to all and will continue to take my child there”.

Jen Elliot, parent

Keeping Kids in No Distress (KKind) program

The Stan Perron Immunisation Service has partnered with the KKind Program at PCH to assist with immunisation service delivery for children with needle aversion and needle phobia. This collaborative approach involves a multidisciplinary team including psychologists, paediatricians and nurses with expertise in pain management and distraction techniques. Those with needle aversion who are unable to be vaccinated in the community can be referred to the Stan Perron Immunisation Service, enabling a step-wise approach in an environment that is suited to the patients’ needs.

“Without this service my child could not be vaccinated safely and for that I am eternally grateful”.

Formal feedback from a consumer via the PCH Child and Family Engagement Service, August 2018
This service is conducted by a team of experienced paediatricians with an expertise in immunisation, along with certified immunisation nurses. This medically-led clinic was established at PMH on a fortnightly basis and has now expanded to a weekly multidisciplinary clinic at PCH, including telehealth services.

The Specialist Immunisation Clinic provides clinical care for:

- Children with complex immunisation requirements, including those with high-risk medical conditions such as an absent or low functioning spleen and those with lowered immunity requiring individualised immunisation plans.

- Children who have experienced or are at risk of an adverse event following immunisation and management of future admissions.

- Children and adolescents with needle phobia including those who are unable to be vaccinated in the community.

- Education and consultation for vaccine-hesitant families.

- Children with medical comorbidities requiring travel health advice and immunisations.

Over a 12 month period, 36 clinics were conducted and 215 patients were reviewed, averaging 6 patients per clinic. These occasions of service included 67 encounters for possible adverse events following immunisation, 133 for complex immunisation requirements for children who are medically at risk of vaccine preventable diseases, 18 for needle phobia, 23 for vaccine hesitancy and 9 for travel health and vaccination advice for those with underlying medical comorbidities.
Prior to a formal immunisation service commencing, baseline data from PMH indicated that 95% of inpatients due or overdue vaccinations were not provided immunisations before discharge, highlighting missed opportunities (Unpublished data Tarca, 2017).

In March 2018, a mobile vaccination delivery service was established for patients admitted to PMH, until hospital closure in June 2018. Simple and complex individual catch-up immunisation plans were also developed and provided for medical teams. Ward based nursing immunisation education was conducted to provide targeted education to these areas.

With the launch of the Stan Perron Immunisation Service at PCH, all patients admitted over the previous 24 hours have their immunisation status reviewed and those under-vaccinated are identified and communicated electronically to the treating inpatient team. The immunisation service continues to facilitate catch-up vaccination and referral for under-immunised inpatients.

During the 42-week period from March to December 2018, a total of 12,698 inpatient immunisation histories were reviewed, identifying 1632 children (average 39/302 [13%] per week) determined to require catch-up immunisations which were either offered or provided prior to discharge (Figure 2).

![2018 inpatient weekly data](image)

Figure 2: Inpatient immunisation status review records over a 42 week period from 12 March – 24 December 2018 (UTD = up to date with routine immunisations according to the Australian Immunisation Register)
Seasonal influenza infection is the most frequent vaccine preventable disease and severe infection is more likely in young children, particularly those with high-risk medical conditions. Previous research conducted at PMH demonstrated that influenza vaccination uptake in at-risk children remains poor (Blyth et al., 2017).

Nationally, influenza immunisation is recommended annually, at the start of each the flu season for all children aged six months to four years, all people identifying as being of Aboriginal and Torres Straight Island descent and those medically at-risk.

A targeted seasonal influenza program for outpatients commenced at PMH in 2010 and has continued annually at PCH. In 2018 this was conducted over a 13-week period involving a mobile influenza vaccination delivery service within outpatients, in conjunction with the Stan Perron Immunisation Centre. Despite the challenges of a disruption to clinical services with the move to a new hospital, the influenza program proved successful, with more influenza vaccines delivered in total over this period than the preceding year (943 versus 898, Figure 3). In addition, education on the flu vaccine was delivered to healthcare professionals and the public, including the use of targeted health fact sheets, grand round presentations and global email updates.

![Figure 3: Influenza vaccinations administered in 2017 (PMH) and 2018 (PMH and PCH)]
West Australian Vaccine Safety Surveillance (WAVSS)
WAVSS was established in 2011 by the WA Department of Health to monitor vaccine safety by facilitating a 24-hour reporting system for the public and healthcare providers for suspected adverse events following immunisation (AEFI) and access to appropriate clinical services.

A collaborative approach between a dedicated Community health nurse, the WA Communicable Disease Control Directorate and the PCH Specialist Immunisation Clinic provide early detection and appropriate timely response to adverse events following immunisation in adults and children.

The Stan Perron Immunisation Service is part of the Smartvax active safety surveillance system (www.smartvax.com.au). This state-based program uses smartphone technology to send an SMS message inquiring if patients have experienced an adverse event following immunisation. Medically attended reactions are flagged and monitored in real-time and act as an early warning signal, ensuring optimal vaccine safety.

Local Immunisation software (WinVacc)
Dedicated computer software, WinVacc, has been installed at PCH to record and manage immunisation activity accurately. It allows for comprehensive reporting on operational and financial activities and links to SmartVax. It has the ability to track vaccine stock and supports uploading of vaccines administered to the Australian Immunisation Register (AIR).

Clinical Audits
The following clinical audits are currently underway, to improve immunisation service delivery and patient outcomes:

• **PCH inpatient immunisation audit**: (in partnership with the PCH General Paediatrics Department) to determine the proportion of children due or overdue vaccinations according to the Australian Immunisation Registry.

• **Catching up children with cochlear implants**: (in partnership with the PCH Ear Nose and Throat Department, CHIP team) to determine which children are due immunisations, particularly pneumococcal in this medically at risk group.

• **Immunosuppression and vaccination**: (in partnership with PCH Rheumatology Department) to determine the current knowledge and practices amongst immunisation providers at PCH.

Telethon Kids Institute
There is ongoing collaboration with Telethon Kids Institute, in the areas of vaccine research and surveillance, including clinical trials recruitment, coordinated through Wesfarmers Centre of Vaccines and Infectious Diseases. In January 2019, the first immunisation fellow joined the Stan Perron Immunisation Service team and has involvement in vaccine research and collaboration with the Vaccine Trials Group at Telethon Kids Institute.
The education of health care professionals and families is an area of ongoing focus for the service, to ensure delivery of the highest quality of preventative health care for the community.

A-Z resource
A comprehensive online A-Z immunisation information resource repository has been developed providing 64 resources including 10 guidelines/policies, 8 health fact sheets and a ‘Take 5’ approach on accessing immunisation history and recording vaccines on the Australian Immunisation Register. These resources are currently available on the PCH intranet. In 2019 this information will also be made available to healthcare professionals external to Child and Adolescent Health Service on the internet.

Contribution to WA Health Immunisation training programs, resources and education
The Stan Perron Immunisation Service provides ongoing review and key stakeholder contribution for education of health care professionals and the public through:

- State immunisation schedule & program resources
- WA Health Department Healthcare Provider Immunisation Certification
- An annual PCH Immunisation Education update day. This event was held for the first time in February 2019 and was attended by 200 healthcare providers and researchers, 10 regional sites through telehealth services and over 500 people have subsequently watched the online immunisation webinar series created from the day.

“Excellent venue, content and speakers. I hope it will become an annual event”.

“I loved the content and the access to specialist health professionals”.

“Thought it was a fantastic day with great speakers”.

Feedback from PCH Immunisation Education Update Day, 8 February 2019.
Internal communication and collaboration plays an important part in ensuring all staff and the community are aware of the service. This has been achieved through:

- Directions and information on the service at PCH wayfinding kiosks, digital information screens and a dedicated pull-up banner, as well as health fact sheets available on the internet.
- Forming partnerships with medical and surgical services at PCH and ongoing collaboration with Ambulatory Care Coordination and Koorlini Moort (Aboriginal health) to enhance immunisation service delivery for specific patient cohorts.
- Assisting with the review of the Palivizumab program in conjunction with the Respiratory and Cardiology departments at PCH.

External communication and collaboration to optimise service delivery has occurred via the following avenues:

- Linking in with WA health networks including WA Health Pathways, Public Health Units, metropolitan and rural hospitals and other community immunisation providers.
- Utilising communication channels including Health Magazines HealthView, Medicus, GP Connect), and social communication platforms such as PCH Facebook and Community News.
- Forming partnerships with community immunisation advocacy groups including the Immunisation Foundation of Australia, Immunisation Alliance WA and the Meningitis Centre of Australia.

Representatives from the service also form part of the WA Immunisation Strategy Implementation Steering Committee (WASISC) and the Australian Technical Advisory Group on Immunisation (ATAGI) to develop, shape and advise the minister for health on the National Immunisation Program. In addition, the service forms part of the national Adverse Events Following Immunisation – Clinical Assessment Network (AEFI-CAN).
Staffing:
Associate Professor Christopher Blyth  Head of Department Infectious Diseases
Dr Anita Campbell  Infectious Diseases Specialist; Medical Lead - Immunisation service
Filomena Mascaro  Clinical Nurse Consultant, Nurse Lead - Immunisation Service
Patricia Clifford  Immunisation Nurse; Stan Perron Immunisation Centre
Dr Ushma Wadia  General Paediatrician; Specialist Immunisation Clinic
Katarzyna Okraj  Clerical Officer; Stan Perron Immunisation Centre
Dr Krist Ewe  Immunisation Registrar, Stan Perron Immunisation Centre