

The role of the Immunisation Nurse Practitioner



Sonja Elia
Nurse Practitioner and Manager



The Immunisation Service



- Three core services
 - Drop-in centre
 - Telephone advice line
 - Weekly outpatient clinic
- Additional – BCG, inpatient's
- Funding through partnership with the Vict. DHHS – Immunisation



Nurse Immunisers



- Registered Nurses approved to administer specified vaccines and manage adverse reactions where a medical practitioner may not be present
- Nurse-led immunisation services:
 - Local council
 - General practice
 - Hospitals
 - Community health
- The Secretary approval applies to an RN who has completed a program of study



Approved client groups



- | | |
|---|-----------------|
| • Diphtheria | • Mumps |
| • <i>Haemophilus influenza</i> type b | • Pertussis |
| • Hepatitis A (schedule recommendations for ATSI) | • Pneumococcal |
| • Hepatitis B | • Poliomyelitis |
| • Human Papillomavirus | • Rotavirus |
| • Influenza | • Rubella |
| • Measles | • Tetanus |
| • Meningococcal (schedule recommendations) | • Varicella |



Why an NP?

Gaps

- Vaccine hesitant families

NOVEMBER 13, 2017 SAVE PRINT LICENSE ARTICLE

Victoria flags tougher 'No Jab No Play' childcare vaccine laws

Steve Liffman

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Families in Victoria will need to provide more proof their child has been vaccinated in order to attend kindergarten and childcare centres under tougher "No Jab No Play" laws.

The proposed laws, set to be introduced into state parliament this week, will make it more difficult for children to remain unimmunised as a bid to crack down further on the anti-vaccination movement.

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Why an NP?

Gaps

- Vaccine hesitant families

Measles immunity induced by 1-dose vaccination provides long-term immunity in most recipients.²² However, approximately 5% of recipients fail to develop immunity to measles after 1 dose.²³ Following a 2nd vaccine dose, approximately 99% of subjects overall will be immune to measles. Measles vaccine effectiveness studies have found the measles-containing vaccines to be 90 to 95% effective in developed country settings with high vaccination coverage and low incidence of measles.²⁴ A Cochrane review reported 1-dose vaccine effectiveness to be 95%,²⁵ however, effectiveness has been demonstrated to be lower, particularly by region (e.g. Asia, Africa) in 1-dose recipients.²⁶



Why an NP?

Gaps

- Special risk patients
 - vaccine orders
 - serology

Unlabeled Organ Transplant Recipients (DOTS) Immunization guidelines for 18 years (April 2016)

All diagnosis under consideration of DOTs. It is recommended that all patients with an **unlabeled organ transplant** receive a complete or early or partial vaccination schedule a minimum of 4 weeks before DOT. It is recommended that all patients with an **unlabeled organ transplant** receive a complete or early or partial vaccination schedule a minimum of 4 weeks before DOT. It is recommended that all patients with an **unlabeled organ transplant** receive a complete or early or partial vaccination schedule a minimum of 4 weeks before DOT.

Age	Clinical Indication	Immunization	Notes
18-24	Unlabeled organ transplant (e.g., HIV, organ transplant recipients, etc.)	Complete within 4-12 weeks	Special risk patients (e.g., HIV, organ transplant recipients, etc.)
25-44	Unlabeled organ transplant (e.g., HIV, organ transplant recipients, etc.)	Complete within 4-12 weeks	Special risk patients (e.g., HIV, organ transplant recipients, etc.)
45-64	Unlabeled organ transplant (e.g., HIV, organ transplant recipients, etc.)	Complete within 4-12 weeks	Special risk patients (e.g., HIV, organ transplant recipients, etc.)
65-74	Unlabeled organ transplant (e.g., HIV, organ transplant recipients, etc.)	Complete within 4-12 weeks	Special risk patients (e.g., HIV, organ transplant recipients, etc.)
75+	Unlabeled organ transplant (e.g., HIV, organ transplant recipients, etc.)	Complete within 4-12 weeks	Special risk patients (e.g., HIV, organ transplant recipients, etc.)

[illegible]

Objectives

- Increase timeliness of administration of immunisations
- Improve clinical decision making with regards to vaccination through appropriate ordering and reporting serology testing
- Promote components of the Immunisation NP model to other agencies





Meningococcal B vaccine

The chart displays the number of patients for the Meningococcal B vaccine across nine consecutive periods. The y-axis represents the 'Number of Patients' from 0 to 250. The x-axis shows the time periods. The data points are: 38 (1/1 - 31/3 2017), 85 (1/4 - 30/6 2017), 68 (1/7 - 31/9 2017), 117 (1/10 - 31/12 2017), 110 (1/1 - 30/3 2018), 155 (1/4 - 31/10 2018), 145 (1/11 - 30/1/2019), 110 (1/2 - 31/12 2017), and 136 (1/1 - 31/3 2018).

Period	Number of Patients
1/1 - 31/3 2017	38
1/4 - 30/6 2017	85
1/7 - 31/9 2017	68
1/10 - 31/12 2017	117
1/1 - 30/3 2018	110
1/4 - 31/10 2018	155
1/11 - 30/1/2019	145
1/2 - 31/12 2017	110
1/1 - 31/3 2018	136

Clinical scenario – Special risk

- 18 month old girl
 - end stage kidney disease working up for renal transplant
- Immunised up to 18 months of age



[illegible]

Clinical scenario – Special risk

- Vaccination plan:
 - Meningococcal ACWY vaccine – 2 doses 2 months apart
 - Meningococcal B vaccine – 2 doses 2 months apart
 - Hepatitis A vaccine – 2 doses 6 months apart
 - Influenza vaccine when available



Clinical scenario – Vaccine error

- Patient presented for routine 12 month vaccines
 - Hib/Men C, MMR
 - Patient ex premature infant requiring extra Hep B vaccine at 12 months
- Vaccines administered
- Following the patient's departure, on data entry, nurse noted the Hepatitis B vaccine out of date (expired)



Clinical scenario – Vaccine error

- Phoned the mother to inform of the error
 - Recommend the vaccine be repeated in 8 weeks time
- Serology 4 weeks later

Ref No	Date	Description	Status	Type	Auth Provider	Ordered By
19122017.15.3	19/12/2017	Rotavirus Antibodies IgG	Completed - Final result	Microbiology	Ella Sorja, Registered Nurse	Ella Sorja, Registered Nurse
19122017.15.3	19/12/2017	Mumps Antibodies IgG	Completed - Final result	Microbiology	Ella Sorja, Registered Nurse	Ella Sorja, Registered Nurse
19122017.15.3	19/12/2017	Measles Antibodies IgG	Completed - Final result	Microbiology	Ella Sorja, Registered Nurse	Ella Sorja, Registered Nurse
19122017.15.3	19/12/2017	Hepatitis B Surface Antibodies	Completed - Edited Res.	Microbiology	Ella Sorja, Registered Nurse	Ella Sorja, Registered Nurse



Clinical scenario – Vaccine error

Date	Description	Status	Type	Auth
19/12/2017 15:3	Rotavirus Antibodies IgG	Completed - Final result	Microbiology	Ella
19/12/2017 15:3	Mumps Antibodies IgG	Completed - Final result	Microbiology	Ella
19/12/2017 15:3	Measles Antibodies IgG	Completed - Final result	Microbiology	Ella
19/12/2017 15:3	Hepatitis B Surface Antibodies	Completed - Edited Res.	Microbiology	Ella

Hepatitis B Surface Antibodies
 Patient Clinical Details: Patient's history to confirm the day RCP Portal Test report
 Specimen information: Blood, Venous, Blood

Ref Range & Units: This age: 100-1000 IU/L

Specimen Type: Serum

Ref Range & Units: 100-1000 IU/L

Result: Positive

Interpretation: Evidence of past infection

Comment: Evidence of past infection

- Patient also immune for MMR, so medical contraindication completed exempting the patient from 18 month dose



Other clinical examples.....

- Rheumatology patients – biologics, steroids, MTX
- Inflammatory bowel disease – immunosuppressants
- Chemotherapy and Stem Cell transplant
- Asplenia, Sick cell
- Needle phobia – immunisations under sedation (nitrous, midazolam)



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