



## CLINICAL PRACTICE GUIDELINE

Guideline coverage includes NICU KEMH, NICU PCH and NETS WA

# Immunisations

This document should be read in conjunction with the [Disclaimer](#)

### Key Points

- Parental consent must be obtained prior to all immunisations. The consent process for vaccination enables a parent to make an informed decision.
- Literature for parents to read on immunisation is located in the purple child health record.
- Refer to the Neonatal Medication Protocols for administration guidelines.
- Bring forward the 8 week immunisations by no more than 1 week if discharge is imminent.
- For preterm infants already home it is currently recommended to immunise at 8 weeks postnatal age unless still < EDD in which case immunise at EDD. In the above scenario if the EDD is very soon after discharge i.e. A couple of days then recommend letting them settle in at home for a couple of weeks before the immunisations.
- Pneumococcal vaccine can be given at the same time as combined DTP/Hib/Hep B/IPV. Pneumococcal vaccine should be administered in the opposite leg.
- Some components of combined Immunisations may be contraindicated in infants with encephalopathy of unknown origins.
- Vaccination should be postponed if there is an acute or febrile illness > 38°C or respiratory infection. Resuscitation equipment and drugs necessary for the management of anaphylaxis must be available prior to immunisation.
- Cardiac infants:
  - For infants booked for elective surgery - no vaccinations within 3 weeks before surgery.
  - Postoperatively and/or have received blood products - no vaccinations for 3 weeks.
- See here for [Medication Administration](#)

### Document Immunisation in the Following Places

- Infant's progress notes.
- Observation chart.
- Neonatal Discharge Assessment (MR 430).
- Infant's child health book - immunisation record.
- Neonatal Immunisation Register.

<b><u>Recommended Vaccination Schedule</u></b>	
Birth to Day 7	<b>Hepatitis B</b> (Infants < 1000 grams or critically unwell receive the 1st Hep B vaccine at 2 months)
2 Months	<b>Infanrix Hexa</b> (Diphtheria, Tetanus, Pertussis, Hepatitis B, Haemophilus influenzae Type B & Polio) <b>Prevenar</b> (Pneumococcal disease) <b>Rotarix (ORV)</b> (Rotavirus)
<b>Aboriginal only</b>	<b>Nimenrix</b> (Meningococcal)
4 Months	<b>Infanrix Hexa</b> <b>Prevenar</b> <b>Rotarix (ORV)</b>
<b>Aboriginal only</b>	<b>Nimenrix</b> (Meningococcal)
6 Months	<b>Infanrix Hexa</b> <b>Prevenar</b>
12 Months	<b>Priorix or MMR 11 (Measles, Mumps and Rubella)</b> <b>Meningococcal Vaccine</b> <b>Hib Vaccine</b>

### **Hepatitis B Vaccine**

Refer to Neonatal Medication Protocols - [Hepatitis B Vaccine](#)

Give at birth or in the first 7 days of life (Infants < 1000 grams or critically unwell receive 1<sup>st</sup> Hep B Vaccine at 2 months).

- The vaccine must be prescribed by medical staff.
- Infants born to Hepatitis B positive mothers are to have Hepatitis immunoglobulin in conjunction with the initial Hepatitis B Vaccine, on the day of birth.
- For infants born <32 weeks gestation and/or birth weight <2000g; a 5<sup>th</sup> dose of Hepatitis B vaccine is required at 12 months of age if the antibody titre is low.

### **Combined Triple Antigen/Hep B/Haemophilus Influenzae Type B/Poliomyelitis Vaccine (Infanrix Hexa)**

Refer to Neonatal Medication Protocols - [Combined Diphtheria-Tetanus-Acellular Pertussis \(DTPa\), Hepatitis B, Poliovirus and Haemophilus Influenzae Type B Vaccine \(Infanrix Hexa\)](#)

Offered to infants who reach 8 weeks of age prior to discharge. Vaccines to be ordered by medical staff (see Medication Protocols).

- Infants receiving immunisations are to have a full set of observations taken prior to immunisation.
- Infants born < 33 weeks gestation: Monitor continuously for 48 hours following immunisation. Observe the infant's breathing pattern and document any observed abnormalities e.g. Irregular breathing, respiratory rate < 30/min. Investigate all episodes of desaturation and bradycardia through careful

observation of the infant's respiratory effort, and the lowest saturation and heart rate values observed during the episode of desaturation.

- Infants born > 33 weeks gestation with complex medical/surgical problems may require monitoring following DTP immunisation as above - discuss with consultant.
- When administering multiple injections, injection sites should be separated by at least 2.5cm so that local reactions do not overlap. The location of each injection should be recorded so that vaccine associated with local reaction can be differentiated.

## Pneumococcal Vaccine

Refer to Neonatal Medication Protocols - [Pneumococcal Conjugate Vaccine, 13-Valent \(Prevanar\)](#)

Offered to all infants who reach 6-8 weeks of age prior to discharge. Aim is to reduce the risk of acquiring pneumococcal disease including pneumonia, meningitis, septicaemia, and lower/upper respiratory tract infections e.g. Otitis media & sinusitis.

- Pneumococcal Vaccine can be given at the same time as combined DTP/Hib/IPV. Pneumococcal Vaccine should be administered in the opposite leg to DTP and Hib.
- Infants receiving pneumococcal immunisation are to have a full set of observations taken prior to immunisation and then continue full observations with feeds for 48 hours post immunisation.
- If a transient fever occurs, Paracetamol may need to be administered.

## Rotavirus Vaccine

Refer to Neonatal Medication Protocols - [Rotavirus Vaccine \(Rotarix\)](#)

The vaccination course of Rotarix consists of 2 doses, at 2 and 4 months of age. The 1st dose should be given between 6 and 14 weeks of age (i.e. prior to turning 15 weeks old), and the 2nd dose should be given by 24 weeks of age (i.e. prior to turning 25 weeks old). The interval between the 2 doses should not be less than 4 weeks.

It is administered to induce immunity against human rotavirus gastroenteritis and its complications. Vaccine viruses replicate in the intestinal mucosa and can be shed in the stool of vaccine recipients, particularly after the 1st dose. Vaccine virus shedding is common with Rotarix and is detected in the stool a week after vaccination in up to 80% of 1st dose recipients, and in up to 30% of 2nd dose recipients. However, there have been no reports of infection with wild-type rotavirus, even when the vaccine is administered to premature neonates in a NICU. Standard precautions (i.e glove use when handling soiled nappy and hand washing) should be adhered to.

Observe the infant for 15 minutes post administration for anaphylaxis.

## Meningococcal Vaccine

**For Aboriginal and Torres Strait Islander Infants ONLY**

Refer to Neonatal Medication Protocol – [Meningococcal Vaccine Group A, C, W135, Y \(Nimenrix®\)](#).

Immunisation to prevent meningococcal disease caused by Neisseria meningitides.

All Aboriginal infants are eligible for meningococcal immunisation at 2 and 4 months.

- Can be given at the same time as Infanrix Hexa® and combined DTP/Hib/IPV vaccine.
- Infants receiving meningococcal vaccine are to have a full set of observations taken prior to immunisation and then continue full observations with feeds for 48 hours post immunisation.

## BCG (Tuberculosis) Vaccine

BCG immunisation is not routinely offered to all infants. It is indicated in the following infants:

- Infants of parents with Hansen's disease or a family history of Hansen's disease.
- Infants of migrants who have arrived from countries with a high incidence of tuberculosis in the last 5 years, or infants who have household contact with such people.

If there is any doubt as to the administration of BCG, refer to the Anita Clayton Centre on 9222 8500

BCG vaccination is only to be administered by appropriately trained and certified health care providers. Commencement of the immunisation schedule required to induce protective antibody formation is recommended at 8 weeks postnatal age except under extraordinary circumstances.

## Resources

[Immunisation Handbook](#)  
[WA Immunisation Schedule](#)  
[PCH Specialist Immunisation Clinic](#)

## References

1. Australian Technical Advisory Group on Immunisation (ATAGI). Australian Immunisation Handbook, Australian Government Department of Health, Canberra, 2018, <https://immunisationhandbook.health.gov.au/>

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