KEY POINTS

1. Parental consent must be obtained prior to all immunisations. Literature for parents to read on immunisation is located in each infant's child health booklet. Refer to NCCU Medication protocol for administration guidelines. Any concern about an infant’s medical fitness to receive immunisation is to be discussed with medical staff prior to immunisation.

2. Bring forward the 8 week immunisations by no more than 1 week if discharge is imminent.

3. 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 ie. A couple of days then recommend letting them settle in at home for a couple of weeks before the immunisations.

4. 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.

5. Some components of combined Immunisations may be contraindicated in infants with encephalopathy of unknown origins.

6. 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.

7. 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

DOCUMENT IMMUNISATION IN THE FOLLOWING PLACES

- Infant’s progress notes.
- Observation chart.
- Neonatal Discharge Assessment (MR 430).
- Infant’s child health book – immunisation record.
- NCCU Immunisation Register.
RECOMMENDED VACCINATION SCHEDULE 2009 – 2010

| Birth to day 7 | Hepatitis B  
(Infants < 1000gms or critically unwell receive the 1st Hep B vaccine at 2 mths) |
|----------------|--------------------------------------------------------------------------------|
| 2 months       | Infanrix Hexa (Diphtheria, Tetanus, Pertussis, Hepatitis B, Haemophilus influenzae type b & Polio)  
Prevenar (Pneumococcal disease)  
RotaTeq (ORV) (Rotavirus) - Delay the 1<sup>st</sup> ORV in infants who are inpatients because it is to be administered ONLY on the day of discharge.  
2<sup>nd</sup> and 3<sup>rd</sup> doses are each given at least a month apart. |
| 4 months       | Infanrix Hexa  
Prevenar |
| 6 months       | Infanrix Hexa  
Prevenar |
| 12 months      | Priorix or MMR 11 (Measles, Mumps and Rubella)  
Meningococcal vaccine  
Hib Vaccine |

HEPATITIS B VACCINE (SEE HEPATITIS B VACCINE PROTOCOL)
Give at birth or in the first 7 days of life. (Infants < 1000gms or critically unwell receive 1<sup>st</sup> Hep B vaccine at 2 mths)

- The immunisation 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.

COMBINED TRIPLE ANTIGEN/HEP B/HAEMOPHILUS INFLUENZAE TYPE B/POLIOMYELITIS VACCINE (INFANRIX HEXA). (SEE INFANRIX HEXA PROTOCOL)
Offered to infants who reach 8 weeks of age prior to discharge. Immunisation 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 eg. 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.
- Paracetamol is not recommended in infants receiving acellular DTP vaccine. If a transient fever occurs, paracetamol may need to be administered.
- When administering multiple injections, injection sites should be separated by at least 2.5 cm 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.
- Use of IPV (Inactivated poliomyelitis vaccine) instead of OPV (oral live poliomyelitis vaccine) is recommended for infants still in hospital to enable vaccination to occur on schedule, without risk to other infants of contracting VAPP. (Vaccine-associated paralytic poliomyelitis). This ensures the infant is protected against poliomyelitis prior to discharge into the community. VAPP is caused by the live virus in OPV which is excreted in stools for 6 weeks after administration and may lead to infection of unvaccinated contacts. If the initial dose is given as IPV the poliomyelitis immunisation schedule can effectively be completed in the home environment with the OPV available from community health resources. If giving IPV on its own it should be given as a subcutaneous injection in the middle third of the anterior aspect of the thigh, lateral from midline.

PNEUMOCOCCAL VACCINE (SEE PREVANAR PROTOCOL)
Offered to all infants who reach 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 eg 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.
- Pneumococcal immunisation (Prevenar) is given at 2, 4 and 6 months (See schedule)

ROTAVIRUS VACCINE (SEE ROTAVIRUS/ROTATEQ PROTOCOL)
The vaccination course consists of three oral doses:

- The 1st dose is recommended to be given between 6 and 12 weeks of age
- The 2nd and 3rd doses should be given at greater than, or equal to 4 week intervals but the course should be completed by the time the infant is 32 weeks of actual age.

Rotavirus vaccine (RotaTeq) is a live attenuated human ORAL viral vaccine administered to induce immunity against the human rotavirus gastroenteritis and its complications. In view of the small but possible risk of transmission between neonates
Rotavirus vaccine should be administered to immunised infants at the time of discharge home, even if this separates from other components of the immunisation schedule. Therefore in cases of prolonged admission the first dose may be delayed beyond 12 weeks of age and the course has flexibility to allow for this. Observe the infant for 15 minutes post administration for anaphylaxis (on the day of discharge the dose may be given within the nursery confines).

**BCG (TUBERCULOSIS) VACCINE**

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

- Aboriginal and Torres Strait Islanders living above the Tropic of Capricorn.
- Infants of parents with leprosy or a family history of leprosy.
- 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, the Perth Chest Clinic can be contacted. 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.