

# Perth Children's Hospital (PCH)

## Neonatal Intensive Care Unit (NICU)

### Who we are

PCH is a recently built tertiary/quaternary paediatric centre, the only one in the state of Western Australia (WA). The NICU at PCH is a 30-bed unit which provides intensive and high dependency care for neonates with surgical, cardiac, complex medical needs as well as some more common neonatal conditions such as severe HIE/ MAS/ sepsis/ severe jaundice. PCH NICU is located on the same floor as theatres and next to the paediatric critical care unit where infants go following open cardiac surgery or for ECMO.

Antenatally diagnosed infants are born at the perinatal centre at KEMH and transferred after birth. Sick infants are also referred and transported from other centres from all over the state of WA. We develop and share clinical guidelines and share staff with the perinatal NICU at King Edward Memorial Hospital.

### What we do

Each year approximately 800 babies are admitted to PCH's NICU, Ward 3B for specialist investigations and treatments for a wide range of complex medical, cardiac and surgical problems.

The unit works in conjunction with other paediatric subspecialties such as paediatric surgery, urology, cardiology, cardiothoracics, ENT, respiratory, nephrology, gastroenterology, neurosurgery, neurology, biochemistry, haematology, immunology, physiotherapy, speech therapy, audiology etc.

Our unit has:

- 16 intensive care beds for critically ill babies and those undergoing major surgery.
- 4 high dependency beds for babies who require close observation and interventions.
- 10 beds for general neonatal care/ step down prior to discharge.

Our NICU is well equipped with state-of-the-art equipment including:

- Incubators
- Radiant warmers
- Infusion pumps
- Draeger VN500 ventilators for conventional and high frequency ventilation
- Bunnell High Frequency Jet Ventilators
- Sensormedics High Frequency Oscillatory Ventilator
- Nitric oxide units
- Bubble CPAPs
- Resuscitators
- Point of care ultrasound machines including Sonosite and Philips 2D EPIQ CVx
- C-MAC video laryngoscope
- Defibrillator
- ECG machine
- Arctic Sun Cooling Machines

PCH NICU has a well-established follow up programme for high-risk infants. Neonates born at <32 weeks gestation, those with neurological presentations or those requiring major surgery in the neonatal period are followed up by this programme, which facilitates close monitoring of the infant's growth and development throughout the first years of life. This facilitates identification of developmental problems at an early stage and appropriate referral for intervention.

Senior Registrars at PCH will gain experience in:

- Management of neonates with surgical issues such as congenital diaphragmatic hernia, oesophageal atresia/ TOF, gastroschisis, bowel atresia, surgical NEC, malrotation, congenital heart disease.
- Patients with complex medical needs with syndromes/ genetic abnormalities.
- Patients with airway issues such as PRS.
- Neurosurgical disorders such as myelomeningocele and post-haemorrhagic hydrocephalus.
- Neurological issues such as cooling for Hypoxic Ischemic Encephalopathy, seizures, stroke, neuromuscular disorders.
- Presentation with inborn errors of the metabolism.
- Sepsis, jaundice, respiratory distress syndrome, pneumonia, meconium aspiration syndrome, pulmonary hypertension, patent ductus arteriosus, hypoglycaemia.
- Various modalities of neonatal ventilation such as PC-AC, SIMV,, volume guarantee ventilation, pressure support ventilation, high frequency oscillatory ventilation, high frequency jet ventilation (our unit is one of only 2 in Australia that offers jet ventilation).
- Inhaled nitric oxide therapy for acute severe pulmonary hypertension.
- Fluid therapy, parenteral as well as enteral nutrition.
- Developmental follow up of ex-preterm and high-risk term infants.
- There is the potential to train in clinician performed ultrasound (cardiac/ lung/ head/ abdo) and a program is being developed for ultrasound-guided intravascular access.

This site is accredited for 12 months training time by the Royal Australasian College of Physicians as part of the Advanced Neonatal Training Program (6 months core neonatal surgical and 6 months non-core).

## What to expect

Expect the neonatal team at PCH to provide a supportive, balanced working and learning environment that enables them to achieve a successful and fulfilling career. We strive to provide a high quality, evidence-based learning environment for colleagues of all paths and at all levels of career through:

- Clinical exposure and experience
- Didactic teaching programs
- Simulation
- Continued professional development

## **Senior Registrar (Fellow) – Neonates – 500180 – Medjobs Reference 11842**

- Departmental meetings including grand rounds and journal club
- Training in advanced modalities of ventilation for preterm infants
- Engagement in medical and nursing education.
- Attendance and participation in regular multi-disciplinary meetings.
- Training in the Certificate for Clinician Performed Ultrasound

## **Medical Staffing**

PCH NICU has funding for:

- Consultant Neonatologists
- Senior Registrars
- Registrars
- Resident Medical Officers