NEONATAL NURSE PRACTITIONER MODEL OF CARE
WERRIBEE MERCY HOSPITAL

Background

Neonatal Nurse practitioners provide an additional model of care for neonates and their families. They have been educated to Master’s level and have completed a therapeutic medicine module allowing them to prescribe from an approved formulary. A period of supervised clinical practice forms part of the education program with necessary learning outcomes. The Australian Nursing & Midwifery Board endorses Nurse Practitioners.

Werribee Mercy Hospital (WMH) is a large community hospital providing services to the southwestern metropolitan community of Melbourne. WMH delivers a varied range of services, which include medical, surgical, palliative, maternity, neonatal, renal dialysis, emergency, mental health – which includes a Mother Baby Unit (MBU), community health, allied health and aged care.

Maternity and neonatal services are currently undergoing a $14 million expansion and re-development, with maternity services completed in June 2011 and neonatal services due for completion in December 2011.

Demographics of Unit

The current role of the WMH neonatal service is as a Level 2 high dependency Special Care Nursery (SCN). Admission to the SCN occurs from 32 weeks gestation and care continues until infants are fit for discharge either to home or to a Level 3 nursery, according to the neonates’ individual needs.

Admissions are sourced from WMH Maternity Ward (MW), from external Level 1 Special Care Nurseries & Level 3 Neonatal Units, and from home.

Admission criterion includes infants requiring:
- Incubator care for short-term transition problems, mild conditions, oxygen therapy, cardio respiratory monitoring, and sick or pre-term issues.
- Monitoring or close observation, e.g. Neonatal Abstinence Syndrome
- Short term ventilator care pending transfer
- Nasal CPAP
- Management of weight loss
- Phototherapy treatment

Exclusion criterion includes infants with or requiring:
- A weight of less than 1300g or less than 32 weeks gestation
- Long term mandatory assisted ventilation
- Oxygen therapy > 60%
- Seizures
- Congenital malformations requiring surgery
- Paediatric investigations only performed at a Level 3 facility
Infants initially meeting exclusion criteria are suitable for admission to SCN when stable and meeting admission criteria. At present, the SCN at WMH has daily Consultant cover during the week and an on call service after hours and weekends.

WMH currently does not currently support Paediatric Registrars or Residents.

The relocation and expansion of the neonatal nursery will result in a 16-cot nursery, making the WMH SCN the third largest high dependency Level 2 SCN in Victoria.

**Service Needs Prioritised**

The focus of the NNP role will be to close the service gaps identified by the stakeholders of the current neonatal service. Of the numerous gaps identified, a prioritised list resulted in the following key areas being the initial primary focus of the NNP:

- Timely review of neonates awaiting discharge from the Maternity Ward (MW) and Special Care Nursery (SCN), including referrals and writing of scripts
- Support at elective caesarean section
- Support at emergency caesarean whilst awaiting the arrival of a Paediatrician
- Identification of the critically ill neonate and subsequent action and care until the Paediatrician is available

The NNP role will be viewed as an advanced clinical nursing practice role that will cover the continuum from admission to discharge, and will incorporate clinical activity, education to families in addition to nursing staff and medical staff, policy development, quality activity, and research.

The NNP contract will allocate 0.7 EFT to SCN for clinical activity, with some capability for incorporating an allocation of a lesser EFT to the Emergency Department (ED) and MW, and an allocated 0.3 EFT to the Education department for the quality, policy development and research aspect of the role. NNP's will work a seven day per week rotating roster.

**Role of the NNP**

The NNP role will incorporate quality client focussed care to the neonate, their family and carers whilst utilising a holistic family centred approach, and will pursue research and development of clinical practice guidelines and provide evidence based education to health professionals throughout the hospital. The NNP will provide leadership and role modelling to nursing colleagues and medical staff within Mercy Health, and as a result will play a significant role as a neonatal resource within our health facility.

The NNP will:

- Incorporate advanced clinical nursing care consistent with professional responsibilities
- Provide clinical leadership and mentoring
- Promote evidence based practice
- Participate in and initiate appropriate research, education & development activities
- Support communication pathways between health care professionals and families
• Provide effective supervised day-to-day clinical management of both ambulatory and admitted patients, including but not limited to assessment, admission, management and discharge.

The NNP will work within the scope of practice supported by the clinical guidelines approved by WMH, and will work to deliver an entire episode of care rather than to complete a specific clinical task.

The role is an expansion of the current clinical nursing practice, and may include clinical activity to rectify identified service gaps as documented, but not limited to:

• Identification and addressing the needs of the critically ill neonate until the Paediatrician is available
• Recognition and addressing the needs of the neonate whose condition changes
• Initiating and performing resuscitation procedures on neonates until the Paediatrician is present
• Prescribing of medications listed on the approved neonatal formulary
• Initiating diagnostic radiology and pathology tests
• Interpreting the results of diagnostic investigations and actioning them where necessary
• Development and planning of discharge pathways
• Referral to medical and allied health professionals
• Performing discharge examinations on neonates in SCN and MW
• Completion of carers certificates for parents or guardians for the limit of one week per certificate, for the time of admission

The NNP will comply with:

• Recency of Practice standard
• ANMB Competency Standards for the Nurse Practitioner
• ANMB standard for Continuing Professional Development
• Have completed an approved nurse practitioner program of study at Masters level or equivalent

**Specifics of Care by NNP**

The care continuum the NNP will focus on is a combination of acute assessment and intervention, crisis, and primary care.

The NNP are autonomous practitioners who work within the nursing and medical team. They communicate and liaise closely with nursing and medical staff in SCN, MW, and the Education and Emergency departments.

In addition to the current aspects of clinical care provided by a clinical nurse specialist (CNS) and ANUM, the identified gaps have directed the scope of practice to include:

• Identification and maintenance of the critically ill neonate which may include:
  - Intubation
  - Umbilical or intravenous cannulation
  - Recognition of need for ventilation from CPAP & weaning from ventilation
  - Fluid & electrolyte management
• Resuscitation and maintenance of a neonate at elective caesarean delivery and at times, emergency caesarean delivery
• Assessment, referral, interpretation and management of the jaundiced baby with education to the carers, both nursing and family
• Assessment, referral, interpretation and management of the baby with dysplasia of the hip, with subsequent education to the carers
• Psychosocial assessment and care of the neonate and their family
• Assessment and potential or differential diagnosis of a newly admitted neonate or neonate with altered clinical status, including requests for diagnostic testing
• Education and preparation of family for potential neonatal discharge
• Conduction of discharge examination and writing of a discharge summary, including referral to other health services or practitioners where necessary
• Prescribing of required medication from the NNP formulary
• Adjustment of medication as per neonates’ requirements

Discussion of all findings with colleagues both nursing and medical, with documentation of results and action plan

Collaborative Structure

The collaborative structure is a two way process. NNP’s will receive and make referrals to the appropriate professional according to the needs and requirements of each individual client and their family.
Departments within WMH will provide the services unless specialised care not available at WMH is required, whereby referrals will be outsourced to external providers.
All referrals received will be stored in patient histories, documented in patient notes and actioned in a timely manner.
All referrals made by NNP’s will follow appropriate referral pathways using an accurate and legally responsible form of documentation.
Accountability & Governance

The autonomous nature of the nurse practitioner’s advanced clinical practice will require accountability for health care outcomes. The NNP’s must ensure the highest quality of care by obtaining national certification, and periodic peer review. In addition, they will conduct regular clinical outcome evaluations, utilise a code for ethical practice, provide evidence of continuing professional development and ensure maintenance of clinical skills. The NNP’s need to be committed to seeking and sharing knowledge that promotes quality health care and improves clinical outcomes. Accomplishment is maintained by leading and participating in professional health care and education forums, conducting research, and applying findings to clinical practice.

Governance is the primary means of maintaining oversight and accountability in the WMH health structure. It describes the mechanisms used to ensure that NNP’s follow established processes and policies. It includes the implementation of systems, processes to introduce, monitor, and record activity, takes steps to ensure compliance with agreed policies, and provides for corrective action in cases where guidelines have been ignored or misconstrued.

**NNP Management Structure with WMH**

The management structure provides reporting pathways for the NNP, and in reverse, provides management pathways from the Executive level to the NNP.
Collaborative Governance

The NNP will collaborate closely with several structural groups within Mercy Health, particularly when creating and implementing clinical practice guidelines, policies and educational forums.

NP Contract

NNP candidacy will be advertised as per Mercy Health’s recruitment and selection policy, which states that recruitment, selection and appointment of committed and capable employees will be managed through a fair, equitable and transparent process.

Candidacy will continue for a period of two to three years, dependant on notification of endorsement from the NMBA and AHPRA.

Candidates will agree to remain at WMH as a neonatal nurse practitioner (NNP) for a minimum of 2 years post endorsement. Consideration will be given to variation from this agreement for exceptional circumstances.

Clinical supervision will be provided as per the definition stated in the National Clinical Supervision Support Framework – Consultation Draft, produced by HealthWorkforce Australia in April 2011, clinical supervision involves the oversight – either direct or indirect - by a clinical supervisor, of professional procedures and/or processes performed by a student within a clinical placement for the purpose of guiding, providing feedback on, and assessing personal, professional and educational development in the context of each student’s experience of providing safe, appropriate, and high quality patient care. The clinical supervisor’s role may encompass educational, support, and managerial functions.
At WMH, NNPC’s will receive clinical supervision from Paediatricians, Pharmacists, Radiologists and nursing colleagues. To facilitate this process, candidates will rotate to MHW for a total period of 6 weeks every six months over a two-year period. In addition, the NETS service and Royal Children’s Hospital (RCH) will be utilised for clinical supervision. A nursing mentor has been allocated to NPC’s whilst working at Mercy Hospital for Women (MHW), and a mentor within WMH is provided for emotional support and regular debriefing and discussion. It is envisaged that the appointed NNPC’s from WMH and other Level 2 nurseries will form a support group for networking purposes.

**Key Performance Indicators (KPI’s)**

KPI’s provide a series of measures against which the line managers of the NNP’s and external investors can assess how the NNP service is performing, and likely to perform over the medium and long term. KPI’s will refer to the availability, efficiency and quality of the healthcare service provided by the NNP service for neonatal patients and their families. They will provide NNP’s with clear goals and objectives, coupled with an understanding of how they relate to the overall success of the NNP program and the organisation. Indicators are based on the ANMC ‘National Competency Standards for the Nurse Practitioner’ in addition to the standards set by WMH. Audits, education records, production and redevelopment of Clinical Practice Guidelines and policies to name a few will evidence achievement of KPI’s.

Indicators specific to WMH for NNP’s & candidates will include:

**A. Structural**
- Monthly NNP EFT with SCN & Education remains within budgeted EFT for those cost centres

**B. Process**
- Academic achievement within the Masters course
- Completion of advanced practice competencies annually
- Maintenance of e-Log and monthly review of e-log for NNPC’s
- Provision of education to nursing and medical colleagues
- Monitoring of own practice through peer supervision and annual performance review
- Development of Clinical Practice Guidelines, competencies and policies
- Developing relationships with internal and external stakeholders
- Membership and involvement of internal and external committees
- Contributes to the strategic planning process of the Neonatal Department.

**C. Outcome**
- Appropriate selection and prescribing of medication
- Audit of treatment plans completed by NNP’s
- Involvement in quality activities
- Readmission rate following NNP discharge
- Timely admission and discharge
- Patient and staff satisfaction surveys
KPI's based on the ANMC ‘National Competency Standards for the Nurse Practitioner’ include:

1. **Evidence of Dynamic Practice**
   1.1 Advanced, comprehensive & holistic health assessment
   1.2 Confidence & Clinical Proficiency in evidence based procedures, treatments & interventions
   1.3 Uses knowledge & skills of extended practice competencies in complex & unfamiliar environments
   1.4 Skills in accessing established & evolving knowledge in clinical & social sciences & the application of this to patient care & education

2. **Demonstrated Professional Efficacy**
   2.1 Applies extended practice competencies within a nursing model
   2.2 Established therapeutic links with patient / client / community that recognise & respect cultural identity & lifestyle choices
   2.3 Proactive in conducting clinical service

3. **Evidence of Clinical Leadership**
   3.1 Engages in clinical collaboration
   3.2 Engages in and leads informed critique & influence at WMH’s level of health care