

Sydney Neonatal Registrar Rotation — Job Description & Training Programme Outline

Introduction

The Sydney Neonatal Registrar Rotation appointments involve rotations between Neonatal Intensive Care Units within participating hospitals. The participating hospitals and services are Royal Prince Alfred Hospital (RPAH), Westmead Hospital (WH), The Children's Hospital at Westmead (CHW), Royal North Shore (RNS) Hospital, Liverpool Hospital, and NETS (NSW newborn and paediatric Emergency Transport Service). Rotations through these services will provide experience in all facets of neonatal care. Appointments will be for one or two years:

One Year Appointments: These will comprise two six month terms involving the NICU's at RPAH, CHW, WH, Royal North Shore and Liverpool Hospital. These one year appointments will **not** involve rotation to NETS. As far as possible the terms allocated will be matched to the training requirements of the candidates.

Two Year Appointments: The first year will involve two six month terms as described above for one year appointments. The second year may involve one of the following combinations; a) six months at NETS and six months at an NICU; b) twelve months at NETS or c) twelve months in an NICU.

Progression to the second year will be subject to a satisfactory performance review after 6 months of the first year. As far as possible, the allocation of the second year will be matched to the training requirements and wishes of the candidates.

RPAH is located adjacent to the University of Sydney 4km (7 mins.) south west of the central business district of Sydney, Liverpool Hospital is 32 km (46 mins.) or 38 km by motorway (30 mins.) south west of the CBD, Royal North Shore Hospital is 8km (10 mins.) north west of the CBD and Westmead Hospital, CHW and NETS are co-located in the geographic centre of Sydney; 25 km (31 mins.) west of the CBD.

NSW newborn and paediatric Emergency Transport Service (NETS)

NETS is the single state-wide critical care transport service for children (including newborns). The service acts on behalf of all hospitals, including the 10 tertiary hospitals providing neonatal intensive care and paediatric intensive care. Calls are received from any of 160 hospitals in metropolitan, rural and remote areas seeking advice and/or clinical support. Using call-conferencing techniques, doctors are linked in a conversation with the neonatologist/paediatric intensivist/ specialist and other specialists as well as the NETS consultant and the transport team. The referring doctor only has to make one phone call and a discussion occurs with all the players hearing the same message. Where transport is required, a NETS team can be sent by road, helicopter or plane to initiate intensive care in the referring hospital and then continue it en route to the selected destination hospital. NETS takes 2,500 calls per year and NETS teams move approximately 2,000 patients per year. Teams consist of a transport nurse and transport doctor. Doctors come to NETS after

extensive experience in critical care areas such as neonatology and receive training in transport medicine while at NETS. Regular teaching sessions are held and research is encouraged; particularly for longer appointments (> 6 months).

Royal Prince Alfred Hospital

RPAH is the main tertiary maternity hospital serving central and inner south western Sydney. There are approximately 5,000 deliveries per year with a high proportion of deliveries being high-risk antenatal referrals from other centres within the state of New South Wales. The Department of Newborn Care provides level 2 and level 3 care for inborn infants and high-risk infants transferred in-utero and ex-utero from the entire state. There are 8 ventilator cots and 24 level 2 cots. Approximately 900 babies a year are admitted with about 160 of these requiring ventilation. About 50% of the babies are high-risk referrals from other centres both in and ex-utero. The department has a strong emphasis on education and research. There is a structured postgraduate education program that involves two skills based learning sessions each week, time which is protected from clinical responsibilities. There is also an interest on ultrasound in neonatology and there are opportunities to develop some basic skills in cerebral and cardiac ultrasound. These positions are mainly designed for clinical training but registrars on the Sydney Neonatal Registrar Rotation have completed and published research studies during their time at RPAH.

Westmead Hospital

WH has the largest tertiary unit in New South Wales, with 1200 neonatal admissions and 4,500 deliveries a year. It has 19 level 3 beds with a capacity to ventilate 11 infants, and 20 level 2 special care beds. Most infants receiving intensive care are referred to WH in utero for prematurity or congenital abnormalities. Because it is co-located with CHW, WH is one of two designated units in NSW for those babies identified antenatally with surgical and complex cardiac problems requiring critical therapy and assessment after birth. So there is considerable experience in early stabilisation of such babies.

The Children's Hospital at Westmead

The Grace Centre for Newborn Care is a 23 bed neonatal intensive care unit whose staff care for approximately 550 infants each year. Our unit is one of two designated units in NSW caring for infants with cardiac and surgical problems or complex medical conditions and we have a close affiliation with Westmead Hospital. Infants are referred from throughout the state of New South Wales, the Australian Capital Territory and surrounding islands. The unit is located within NSW's largest paediatric hospital which allows exposure to a wide variety of complex medical and surgical conditions and contact with many sub-specialists. There is a comprehensive and extensive teaching and tutorial programme within the hospital plus a number of computer and research related courses on offer. Our unit focuses on encouraging novice researchers and postgraduate research degree enrolment.

Royal North Shore Hospital

RNSH is the main tertiary maternity hospital serving the Northern districts of Sydney. There are approximately 10500 deliveries within the area. Most high-risk cases would be transferred in-utero from the other centres. The RNSH Newborn Care Centre has about 160 ventilated infants a year. This centre has facilities for High Frequency Ventilation, nitric oxide, echocardiography and a well developed follow up program.

Liverpool Hospital

Liverpool Hospital is a teaching hospital of the University of New South Wales. We are the perinatal centre for South Western Sydney and over 50% of our admissions from our area or the rest of New South Wales. The area health service delivers over 12,000 babies per annum, 3,500 of these are at Liverpool. There are 8 intensive care beds that will increase to 10 over the next year. Our unit is a committed "Bubble" (Columbia) CPAP unit and also have facility for HFOV and NO. There is an extensive education programme including exposure to the management of fetal problems.

Selection Criteria

Essential Criteria

- Registered with the Royal Australasian College of Physicians as an Advanced Trainee or overseas equivalent;
- Registered or registrable with the NSW Medical Board; (overseas doctors are required to have passed the IELTS exam for English Language and evidence of having passed the IELTS exam in the last 2 years **must** be provided at time of application; a score of 7 or more must have been obtained in each category of the IELTS for an overseas doctor to be registrable with the NSW Medical Board)
- At least six months experience in a level 3 Neonatal Intensive Care Unit, ideally in a developed country.
- There should be demonstrated proficiency in:
 - Resuscitation at delivery;
 - Advanced airway management including endo-tracheal intubation and mechanical ventilation;
 - Peripheral and umbilical arterial and venous cannulation
- **For 2nd year rotation to NETS:** Current Advanced Paediatric Life Support (APLS) or equivalent (Provider/Instructor);
- Demonstrated commitment to further education and professional development;
- Demonstrated ability to work in a multi-disciplinary team;
- Effective communication skills;
- Basic Computer skills.

Desirable Criteria

- Advanced Paediatric Life Support or equivalent (Provider/Instructor);
- Neonatal Advanced Life Support or equivalent;
- Experience in the multidisciplinary management of surgical and cardiac conditions in the newborn;
- **For 2nd year rotation to NETS:** Experience in Paediatric Intensive Care, Paediatric Emergency Medicine or Paediatric Anaesthesia.
- NSW Department of Health mandatory Child Protection Training or equivalent;
- Understanding of research methodology and research experience;
- Understanding of Clinical Governance & demonstrated commitment to its application;
- Demonstrated commitment to teaching;

Accountabilities

Neonatal Registrars are required to provide direct patient care of inpatients in the Neonatal Nursery under the supervision of the attending Neonatologist. This will include:

- Participation in a rotating shift roster that involves, evening, night and weekend work
- Clinical assessment of the infants within the nursery
- Attending high risk deliveries for the purpose of resuscitation and stabilisation
- Prescribing appropriate medications, enteral and parenteral fluid and nutrition
- Performing procedures as indicated including advanced airway management, intravenous and intra-arterial cannulation, blood, urine and CSF sampling and the insertion of intercostal catheters
- Arranging appropriate investigations and interpreting the results
- Attending morning and afternoon ward rounds
- Providing problem orientated case presentations
- Active involvement in formulation of patient management
- Effective liaison with medical and surgical sub-specialty teams
- Comprehensive family communication and support
- Regular communication with referring physicians
- Documentation of patients' progress in hospital records
- Compilation of concise and accurate discharge summaries
- Active participation in the unit's quality assurance and teaching program
- Teaching of students and residents

NETS is the neonatal and paediatric retrieval service for NSW. The only way to gain retrieval experience in the SNRR is through NETS. Registrars, who are seconded to NETS, are required to provide direct patient care of inpatients in a variety of hospital settings under the indirect supervision of the on duty NETS consultant and the receiving consultant. This will include all the accountabilities mentioned above. It is important to understand that the NETS registrars will be providing acute care to the wide range of paediatric patients (from the tiniest neonate up to children over a 100kg) with both medical and surgical conditions.

NETS registrars must be able to communicate effectively with families and the referring and receiving clinicians directly as well by phone. Good verbal skills are essential.

NETS registrars must have the technical skills and the physical fitness and flexibility to provide care for this range of patients in referring hospitals as well as in road, rotary and fixed

wing vehicles. Therefore NETS applicants may be expected to undergo a medical assessment and functional test (at NETS' cost).

Training Goals and Objectives

A. Clinical Component

- To become clinically proficient in the care and management of term and preterm neonates with acute severe illness as well as complex medical problems.
- To become adept in managing this care in the context of the individual family and locally available community support structure.
- To develop an understanding of the impact of severe, acute illness in a child on the family.

This will be achieved through:

- ongoing exposure to complex neonatal diseases, clinical assessment, resuscitation and decision making regarding all management issues and support available at the hospital and in the community;
- meeting the trainees' clinical needs by supervision from senior staff, ongoing formal education sessions and formal feedback;
- fostering interpersonal and leadership skills required for managing the care of sick children and their families in hospital and in the context of their community;
- the use of time management skills, particularly work prioritisation.

Clinical Duties:

Inpatients: Clinical duties consist of immediate responsibilities for patients within the neonatal intensive care environment. This includes clinical clerking, performing procedures such as intubation and placement of vascular catheters, ordering and interpretation of relevant investigations and provision of continuing care under the supervision of the on-call Neonatologist. Ward rounds with senior staff involve preparing and presenting cases for discussion and helping to formulate appropriate management plans. Many of the centres require attendance at high-risk deliveries with exposure and training in resuscitation at birth.

Outpatients: Many terms involve participation in general and/or newborn follow-up clinics.

Transport patients: The NETS rotation involves working in a critical care environment at a physical distance from support and assistance. While telephone support is always available, an ability to work independently and communicate effectively is vital.

B. Teaching Component

- To develop and demonstrate considerable teaching competence.

This will be achieved through:

- formal instruction in teaching and presentation skills;
- opportunities for presentations as well as teaching (one-on-one, small and large groups)
- critique by peer review and supervisor review.

Meetings: Each of the units hold regular meetings that include case presentation and quality assurance. These often involve staff from Nursing and Allied Health.

C. Research Component

- To acquire the foundations of knowledge and skills required to critically assess research literature and become a productive investigator.

This will be achieved through:

- formal instruction in statistics, epidemiology, research design and critical reading and writing skills.

Each of the units provides an in-house education program tailored to the activities of the service with a mix of didactic sessions, group discussion and practical instruction. Opportunities exist to participate in clinical research by undertaking a project under the supervision of one or more of the senior staff with the intention of presentation within the unit, publication in a peer reviewed journal and/or presentation at a national conference. Projects would also be suitable for submission to the College of Physicians, as part of the requirement for advanced training.

D. Administrative Component

- To understand - at a reasonable level - the management of administrative issues relating to Junior Medical Staff in the wider context of the hospital and society.

This will be achieved through:

- providing the opportunity for active involvement in the administrative management of issues relating to Junior Medical Staff at CHW and secondment hospitals (rostering, organisation of teaching sessions and FRACP exams etc).

Quality Management

Participate in quality activities. Take part in discussions with consumers about the delivery of services where appropriate.

Clinical Practice Improvement

Goal:

To be accountable for identifying opportunities for improving clinical services at CHW, to be involved in continuous improvement activities and to develop particular knowledge and skills in Clinical Practice Improvement methodology.

Implementation:

- Through formal instruction in Clinical Practice Improvement methodology;
- Through direct involvement in Clinical Practice Improvement projects.
- Through appropriate clinical incident reporting.

Partnership with Consumers

Goal:

To be familiar with the concept of patients and families as consumers and to understand that individual care is undertaken in partnership between the health care team and families.

Implementation:

- Through direct involvement in consumer participation projects, eg consumer forum, under the guidance of the Clinical Services Coordinator and the Service Improvement Unit;
- Through the demonstrated commitment to appropriately involve patients and families in individual health care delivery.

Human Resource Management

Equal Employment Opportunity

Staff are required to be familiar with and comply with EEO policies. Staff who become aware of or suspect any inequity in the Health system either in employment or service delivery, are requested to report the matter to their manager and/or supervisor or the Aboriginal Employment and EEO Coordinator.

Occupational Health Safety & Rehabilitation

Take care for the health and safety of yourself and others at work. Cooperate with Department Heads and supervisors in their efforts to provide a safe working environment. Do not intentionally or recklessly interfere with or misuse anything provided in the interests of health and safety. Report to managers and/or supervisors any hazards in the workplace or any unsafe work practices. Comply with the NSW Health Infection Policy (as amended from time to time).

Child Protection

Be familiar with CHW Child Protection Policy and Procedures. Report all allegations of suspected child abuse and neglect by a health employee. Be familiar with the process of assessing and reporting suspected cases of child abuse and neglect to the Department of Community Services.

Employment Conditions

Registrars are employed under the NSW Public Hospital (Medical Officers) Award through The Children's Hospital at Westmead. They are represented on a number of Hospital committees including the Resident Training Subcommittee of the Medical Education Committee. They may join the Hospital's RMOs Association.

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