



The Northern Neonatal Network  
An Operational Delivery Network  
Website - [www.nornet.org.uk](http://www.nornet.org.uk)



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## Northern Neonatal Network Care Pathways – July 2015

### Newcastle Hospitals NHS Foundation Trust - Royal Victoria Infirmary, Newcastle

#### *Scope of care*

The Newcastle upon Tyne Hospitals NHS Foundation Trust provides neonatal medical services on its site at the Royal Victoria Infirmary. Also on the RVI site is the Sub-Regional Surgical Unit, that provides a full range of surgical and neurosurgical services. The Trust also provides at its Freeman Road Hospital site a full cardiac surgery and cardiology service, including one of the few neonatal ECMO (Extra Corporeal Membrane Oxygenation) services in the country.

The current services provided on the RVI site are as follows:

#### NICU, Royal Victoria Infirmary, Newcastle

#### *Current Unit capacity*

16 Intensive Care cots  
18 Special Care cots

#### *Annual number of deliveries*

7339 (April 2014 – March 2015 figures)

#### *Annual number of admissions*

787 (April 2014 – March 2015 figures)

### **Current threshold for incoming ante-natal transfers**

Generally obstetricians from the eight SCBUs will routinely try to transfer <30/40 gestation mothers here as one of the four receiving NICUs in the Network and especially if they are following agreed pathways via fetal medicine or other monitoring for subsequent surgical/cardiac purposes. This is done by direct discussion with receiving consultant obstetricians and neonatologists if a suitable Intensive care cot is available.

### **Current threshold for incoming post-natal transfers**

Babies <30/40 that have to delivered at one of the SCBUS are routinely transferred to the RVI for Intensive Care after using the Transfer hotline according to the appropriate Care Pathway. Babies delivered at the SCBUs may be managed there if they are stable on very short-term CPAP and don't need TPN, but otherwise would generally be transferred to the RVI as one of the four NICUs for any ongoing high dependency or intensive care after using the Transfer Hotline.

### **Other thresholds for incoming post-natal transfer**

This will be discussed with the RVI clinicians and decided on a case by case basis, but examples of babies who will generally require transfer include: any baby requiring intensive or ongoing high dependency care that is outside the gestation threshold above, HIE's needing active cooling and surgical cases (see below), including congenital/cardiac anomalies for further assessment that may then require active interventions and potentially subsequent transfer to the Freeman, as well as babies requiring ventilation or TPN where this is not available at the referring hospital.

### **Transfer services provided?**

The RVI provide a full emergency transport service for all babies (including paediatric/PICU cases up to approx. 6kg) within the Network. The transfer team based there also provide as part of their transport system Nitric Oxide. All requests for transfers should be made via the dedicated Neonatal Transfer Hotline number.

### **Routine investigations/tests/screening currently undertaken**

ROP screening is performed on-site. Routine cranial ultrasounds are also done on site, as well as CT and MRI Scans. Other services and diagnostic facilities are listed below.

### **Surgical procedures undertaken and/or post-surgical care provided?**

The RVI is the Regional referral hospital for neonatal surgery and also undertakes neonatal neurosurgery. Laser surgery for advanced ROP (Retinopathy of prematurity) is also provided by arrangement/referral through the consultant neonatologists/ophthalmologists.

### **Cooling for H.I.E undertaken?**

Therapeutic cooling for babies with HIE is undertaken here and babies requiring this therapy can be transferred from one of the SCBUs if this is required/indicated after discussion with one of the neonatologists and subsequent transfer arranged via the Hotline.

### **T.P.N. provided on-site?**

Yes.

### **Neonatal community outreach team/services provided?**

The RVI provides a community children's nursing service that includes selected Special Care discharges on a Monday-Friday basis, covering babies needing home tube feeding, home oxygen therapy and where required in discussion with the Unit Discharge team. Babies with long-term problems that will require ongoing care will may be handed over to the Paediatric Community team either at discharge or during follow up.

### **Transitional Care provision on-site?**

Transitional care is integrated with the postnatal wards and a dedicated neonatal nursing team provides day to day care for these babies.

### **Full list of Services provided:**

- ◆ Advanced Ventilation including oscillation and iNO therapy.
- ◆ All maternal care services (diabetes, renal, spinal, cancer, HDU, ITU etc).
- ◆ Children's community nursing team.
- ◆ Extracorporeal membrane oxygenation. (at Freeman)
- ◆ Full specialist paediatric cardiology and cardiac surgery services.
- ◆ Regional Genetics Service.
- ◆ Neonatal airway service with neonatal bronchoscopy.
- ◆ Neonatal ophthalmology (ROP screening) and laser treatment for retinopathy.
- ◆ Neonatal surgery and neurosurgery on site in addition to full range of paediatric sub-specialities including respiratory, gastroenterology, infectious diseases & immunology, orthopaedics, endocrinology, plastic surgery, neurosurgery, dermatology and PICU.
- ◆ Neonatal Transport Service 24/7, includes iNO & aircraft capability.
- ◆ Perinatal pathology.
- ◆ Regional cleft lip & palate service.
- ◆ Renal dialysis including neonatal haemodialysis.
- ◆ Specialist fetal medicine including 4D scanning and fetal cardiology.
- ◆ Specialist neonatal/paediatric radiology including MRI and ultrasound brain imaging.
- ◆ Specialist neurodevelopmental follow up (BSID 3) of at risk infants & babies born <32 weeks gestation.
- ◆ Therapeutic hypothermia for hypoxic ischaemic encephalopathy.
- ◆ Video 12 channel EEG and aEEG facilities with expert neurophysiology interpretation.