



North Cumbria University Hospitals NHS Trust

Annual report for Special Care Baby Units

2016

Cumberland Infirmary and West Cumberland Hospital

Special Care Baby Units

### **Abbreviations and terminology**

- 1- *ARNI: Advanced Resuscitation of the Newborn Infant*
- 2- *ATAIN: Avoiding Term Neonatal Admissions into Neonatal Units*
- 3- *Badger net: neonatal clinical summaries*
- 4- *BFI: Baby Friendly Initiative*
- 5- *CPAP: Continuous Positive Airway Pressure*
- 6- *EPLS: European Paediatric Life Support*
- 7- *HDU: High Dependency Unit*
- 8- *MAGIG: Maternity Guidelines and Information Group*
- 9- *NCUH: North Cumbria University Hospitals*
- 10- *NICU: Neonatal Intensive Care Unit*
- 11- *NIPE: Newborn and Infant Physical Examination*
- 12- *NLS: Neonatal Life Support*
- 13- *NNAP: National Neonatal Audit Programme*
- 14- *NNN: Northern Neonatal Network*
- 15- *NNeTS: Northern Neonatal Transport Service*
- 16- *SCU: Special Care Unit*
- 17- *WCH: West Cumberland Hospital*

### **Introduction and Scope of care**

This is the first annual report for NCUH, SCU units, both part of the Northern Neonatal Network.

Neonatal care at North Cumbria University Hospital is provided on 2 hospital sites; Cumberland Infirmary and West Cumberland Hospital. SCU at CIC provide care for newborn infants born at 30 weeks' gestation and beyond. SCU at WCH, Whitehaven deliver care to newborn infants born at 32 weeks' gestation. Whenever possible, in utero transfer is arranged for extremely preterm deliveries in line with agreed Network patient pathways.

Both units provide HDU care for preterm or term babies who require non-invasive ventilation e.g. CPAP support. Both also provide brief periods of neonatal intensive care for babies who require stabilisation, intubation and ventilation pending transfer by the neonatal transport team as per the Network's pathways and guidelines.

The transport service is run by the Northern Neonatal Transport Service (NNeTS) based at the Royal Victoria Infirmary, Newcastle.

SCU at Cumberland Infirmary is nurse led with consultant support. The unit current bed capacity is 8 low to medium dependency cots.

The West Cumberland Hospital SCU is supported by 3 tiers of doctors (junior doctors, middle grade paediatricians and consultant paediatricians). The current bed capacity is 9 cots.

This report writing was made possible with the support received from the Northern Neonatal Network and the data included was provided by NNN data manager, Mr Mark Green.

### **Key clinical staff**

#### **Cumberland Infirmary**

- 1- Dr P. Whitehead, consultant paediatrician, Clinical director and lead for Diabetes
- 2- Dr Glyn Jones, consultant paediatrician, RCPCH college tutor, Clinical Governance lead, special interest in paediatric nephrology
- 3- Dr S. Sikkander, consultant paediatrician, clinical audit lead, special interest in Diabetes
- 4- Dr O. Kehinde, consultant paediatrician, special interest in paediatric epilepsy
- 5- Dr K. Gad, consultant paediatrician, neonatal and paediatric allergy lead
- 6- Dr E. Banda, Locum consultant paediatrician
- 7- Dr K. Berankova, consultant paediatrician, special interest in paediatric respiratory medicine
- 8- SCU ward managers; Lesley Brown & Stephanie Moorhead

#### **West Cumberland Hospital**

- 1- Dr Sarah Pennington, consultant paediatrician, College tutor, POSCU lead
- 2- Dr S. Nittur, Locum consultant paediatrician
- 3- Dr C. Jampala, Locum consultant paediatrician
- 4- Locum Consultant Paediatricians on shorter term contracts.
- 5- Dr K. Eapen, Specialty doctor in paediatrics
- 6- Dr D. Sailer, Specialty doctor in paediatrics
- 7- Dr V. Thomas, Locum Specialty Doctor in paediatrics
- 8- Dr S. Ali, Locum Specialty Doctor in Paediatrics
- 9- SCU ward manager, Claire Peters
- 10- SCU Deputy ward manager, Claire Buchanan

### **Northern Neonatal Network**

Northern Neonatal Network (NNN) is an Operational Delivery Network (ODN) operating across the north east and north Cumbria. It is one of the largest neonatal ODNs by geographical area and currently comprises 4 Neonatal Intensive Care Units (NICUs) and 7 Special Care Units (SCUs). The NNN provides support and guidance to all units in the region.

Neonatal stabilisation workshops are run on a yearly basis alternating between Cumberland Infirmary and West Cumberland Hospitals. The teaching comprises a combination of lectures, workshops and simulation scenarios and enables staff who undertake the stabilisation of sick and

premature babies that require care at one of the NICUs to maintain and improve their skills and the provision of care prior to transfer.

There are quarterly Network meetings – both Clinical in nature as well as the Board meetings, regular visits to both units and NICU peer review feedback sessions.

The NNN team regularly circulate NNAP reports and the data manager produces annual data reports for both units.

### **Joint meetings with maternity**

Both paediatric and obstetric teams meet on regular basis. The perinatal morbidity and mortality meeting is held every 2-3 months to discuss neonatal cases.

The Maternity Governance and Maternity Guidelines and Information Groups (MAGIG) meet regularly. Guidelines are circulated for electronic voting and are ratified in the MAGIG meetings. Learning points and meetings' minutes are circulated by the maternity governance and child health clinical governance groups.

NLS update for neonatal and midwifery staff is provided by consultant paediatrician, Dr Jones (NLS and EPLS instructor).

### **Clinical Governance meetings**

Weekly clinical incidents meetings when clinical incidents are discussed and actions taken and learning shared. In addition, clinical incidents, serious learning events, complaints and complements are discussed in the monthly Child Health Governance meetings.

### **Patient experience**

Parent/carer feedback is circulated to nursing and medical staff and is discussed at Child Health monthly governance meetings.

### **BLISS Baby Family Friendly Accreditation Scheme (BFFS)**

Both SCUs are working through the audits and improvements towards full accreditation with BLISS. Working with BLISS, Cumberland Infirmary has completed the requirements necessary for accreditation and is awaiting formal assessment by BLISS. The scheme objectives are to help neonatal units deliver a family centred care for families who have preterm or sick newborn infants admitted to SCU or NICU.

### **UNICEF/UK Baby Friendly Accreditation**

The UNICEF, UK Designation committee had agreed on 22 July 2016 to award North Cumbria NHS Trust, the Stage 1 Baby Friendly Accreditation. The Trust was awarded a first time PASS with excellent feedback. This involved amongst many other documents, the update of several Guidelines including Newborn Feeding and Weight Loss Management, Hypoglycaemia in the Newborn, Neonatal Jaundice, Expressing and Storing Breastmilk and Safe Sleeping. We are continuing to work towards Stage Two which involves the continued education of all staff. The Trust is currently in the process of preparation for Stage 2 Baby Friendly assessment. The Infant Feeding Co-ordinator was instrumental in achieving this along with support from the maternity governance and MAGIG groups.

### **Guidelines**

SCU units on both hospital sites have access to Bedside Clinical guidelines produced by the Midlands Guideline Development Group, NICE national guidelines, Northern Neonatal Network guidance as well as local adapted guidelines available on the Trust Intranet.

New junior medical staff members have departmental induction session covering common neonatal problems e.g. neonatal sepsis, NIPE and neonatal jaundice.

Local guidelines approved in 2016 by MAGIG and maternity governance groups

- 1- Neonatal vitamin K
- 2- Management of neonatal jaundice
- 3- Neonatal hypoglycaemia
- 4- Neonatal weight loss and infant feeding
- 5- Infants born to Hepatitis B and C positive mothers
- 6- Antenatal screening guidelines

Guidelines under review

- 1- NEWTT observation charts
- 2- Response to ATAIN

### **Other achievements**

- 1- A few staff members have successfully completed the ARNI course ( Advanced Resuscitation of the Newborn Infant)
- 2- Audits completed, Audit into the management of early onset neonatal sepsis against NICE guidelines and management of neonatal jaundice against NICE guidelines. An audit into the management of prolonged neonatal jaundice against NICE guidelines has been completed and presented recently on both hospital sites.

- 3- CQC report for Children & young people has been rated good for the last 2 years. Concerns within the Safe domain were in relation to Paediatric and Neonatal Nursing staffing. The outcome of the Success Regime/ Strategic Partnership Alliance aims to address Staff rosters.
- 4- SCU has managed to recruit a few new members of nursing staff
- 5- Excellent parent/carer feedback to both SCU units
- 6- NNAP reports showing most areas scoring equal to or above national average

### NCUH Data

2016 admission data showed relative increase in number of term admission although the total number of live birth has also increased. Intensive care days were similar to 2015 but HDU days have increased at Cumberland Infirmary.

The main reasons for admissions were respiratory disease, infection, hypoglycaemia, monitoring or poor condition at birth.

15 babies were delivered equal to or less than 30 weeks' gestation at Cumberland Infirmary compared to 21 babies born at similar gestation at West Cumberland Hospital during the same period.

Cumberland Infirmary	2013	2014	2015	2016
Live Births	1697	1748	1695	1708
Admissions	242	204	233	225
Term Admissions	113	89	101	119
Deaths	0	2	0	0
IC days	29	20	28	27
HD days	90	121	117	131
SC Days	1902	1690	1783	1592
NC Days	643	458	522	145
TC days	200	152	139	195

Cumberland Infirmary	2013	2014	2015	2016
Admissions	242	204	233	223
Inborn - booked	205	171	187	184
Inborn -booked elsewhere	2	3	4	5

Re-admission	16	15	21	17
Postnatal transfer in	12	10	13	11
Other*	7	5	8	6
<b>Gestation</b>				
<26	2	3	2	1
26-30	17	17	14	14
31-36	110	95	116	89
37+	113	89	101	119
<b>Total</b>	<b>242</b>	<b>204</b>	<b>233</b>	<b>223</b>

\*includes un-booked, home admission, Cannot derive

<b>Cumberland Infirmary</b>				
	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
<b>Respiratory support days</b>				
Ventilation no. of babies	17	11	17	10
Ventilation no. of days provided	22	13	21	11
n.CPAP no. of babies	32	39	40	37
n.CPAP no. of days provided	66	87	85	94

<b>West Cumberland Hospital</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Live Births	1328	1222	1182	1244
Admissions	197	145	170	141
Term Admissions	109	61	83	64
Deaths	2	3	1	0
IC days	35	17	23	16
HD days	89	60	99	71
SC Days	1773	1559	1451	1512
NC Days	302	268	159	29
TC days	0	0	0	0

<b>West Cumberland Hospital</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Admissions	197	145	170	141
Inborn - booked	148	114	117	109

Inborn -booked elsewhere	5	5	10	3
Re-admission	22	13	25	14
Postnatal transfer in	4	7	8	10
Other*	18	6	10	5
<b>Gestation</b>				
<26	1	3	1	2
26-30	13	9	17	19
31-36	73	72	69	56
37+	110	61	83	64
<b>Total</b>	<b>197</b>	<b>145</b>	<b>170</b>	<b>141</b>

\*includes un-booked, home admission, Cannot derive

<b>West Cumberland Hospital</b>				
<b>Resp support days</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Ventilation no. of babies	18	10	15	13
Ventilation no. of days provided	22	13	20	15
nCPAP no. of babies	17	13	21	18
nCPAP no. of days provided	42	30	75	52

### All Admissions

<b>Reason for admission 2016</b>	<b>Cumberland Infirmary</b>
Preterm	65
Respiratory disease	50
Hypoglycemia	22
Infection suspected/confirmed	20
Monitoring (short	14



observation)	
Poor feeding or weight loss	12
Continuing care	9
Poor condition at birth	7
IUGR/SGA	7
Congenital anomaly suspected/confirmed	3
Cardiovascular disease	2
Convulsions suspected/confirmed	2
Social issues/foster care	2
Birth trauma/injury	2
Re-admission	2
Surgery	1
Investigation	1
NAS suspected/confirmed	1
GIT disease	1
<b>Total</b>	<b>223</b>

### Term Admissions

Reason for admission 2016	Cumberland Infirmary
Respiratory disease	37
Infection suspected/confirmed	18
Hypoglycemia	17
Monitoring (short observation)	12
Poor feeding or weight loss	8
Poor condition at birth	7
Congenital anomaly suspected/confirmed	3
Continuing care	3
Cardiovascular disease	2
Convulsions suspected/confirmed	2
Social issues/foster care	2
IUGR/SGA	2
Birth trauma/injury	2
Surgery	1
Investigation	1

NAS suspected/confirmed	1
GIT disease	1
<b>Total</b>	<b>119</b>

### All Admissions

Reason for admission 2016	West Cumberland Hospital
Preterm	54
Respiratory disease	31
Infection suspected/confirmed	8
Jaundice	8
Hypoglycemia	7
IUGR/SGA	5
Monitoring (short observation)	4
Continuing care	4
Congenital anomaly suspected/confirmed	4
Poor feeding or weight loss	3
Social issues/foster care	2
Failed oximetry testing	2
Maternal admission/emergency	2
Poor condition at birth	1
Cardiovascular disease	1
Convulsions suspected/confirmed	1
Re-admission	1
Surgery	1
GIT disease	1
HIE suspected/confirmed	1
<b>Total</b>	<b>141</b>

### Term Admissions

Reason for admission 2016	West Cumberland Hospital
Respiratory disease	21

Infection suspected/confirmed	7
Jaundice	6
Hypoglycemia	4
Monitoring (short observation)	4
Congenital anomaly suspected/confirmed	4
Poor feeding or weight loss	3
IUGR/SGA	2
Failed oximetry testing	2
Maternal admission/emergency	2
Poor condition at birth	1
Continuing care	1
Convulsions suspected/confirmed	1
Social issues/foster care	1
Surgery	1
GIT disease	1
Preterm	1
HIE suspected/confirmed	1
Re-admission	1
<b>Total</b>	<b>64</b>

### Challenges

- 1- Recruitment of both medical and nursing staff. The SCU recently recruited a few new nursing staff members. With a few senior Band 7 staff nurses retiring, the current challenge is training up Band 6 and Band 5 to more senior positions.
- 2- An internal review into sustainability of services, undertaken by the nursing and midwifery, governance and quality manager. The consultation process continues in liaison with the NNN.
- 3- Reconfiguration of maternity services in North Cumbria
- 4- Geography, North Cumbria is a large area and transfers to and from both units require close liaison with tertiary unit and NNeTS
- 5- Data entry on Badger needs to improve to encompass the care provided for term babies cared for on postnatal ward e.g. babies on IV antibiotics or term babies admitted for short periods.
- 6- Reducing term admissions as part of ATAIN project
- 7- Admin support for NNAP/Badger

### Closing remarks

North Cumbria University Hospitals' Special Care Baby Units faced a few challenges in 2016 namely nursing and medical staff recruitment and planned service reconfiguration but have recently appointed new members of nursing staff. The patient/carer's feedback is positive for both special care baby units in the trust.

Maternity reviews and reconfiguration of services still poses a challenge but the paediatric team continue efforts to recruit to both units to meet national standards.

The Trust has been removed from special measures recently in recognition of the improvements made in the services offered to patients.

If you have any comments please email

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