

North Cumbria University Hospitals NHS Trust

Annual report for Special Care Baby Units

2017

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- *CIC: Cumberland Infirmary, Carlisle*
- 6- *CPAP: Continuous Positive Airway Pressure*
- 7- *EPLS: European Paediatric Life Support*
- 8- *HDU: High Dependency Unit*
- 9- *MAGIG: Maternity Guidelines and Information Group*
- 10- *NCUH: North Cumbria University Hospitals*
- 11- *NICU: Neonatal Intensive Care Unit*
- 12- *NIPE: Newborn and Infant Physical Examination*
- 13- *NLS: Neonatal Life Support*
- 14- *NNAP: National Neonatal Audit Programme*
- 15- *NNN: Northern Neonatal Network*
- 16- *NNeTS: Northern Neonatal Transport Service*
- 17- *SCU: Special Care Unit*
- 18- *TC: Transitional Care*
- 19- *WCH: West Cumberland Hospital*

Introduction and Scope of care

The Special Care Units at NCUH are 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 provides 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 requiring 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.

Author K. Gad, October 2018

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 were 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, Named Doctor for safeguarding children, special interest in paediatric nephrology
- 3- Dr K. Gad, consultant paediatrician, neonatal and paediatric allergy lead
- 4- Dr O. Kehinde, consultant paediatrician, RCPCH college tutor, special interest in paediatric epilepsy
- 5- Dr S. Sikkander, consultant paediatrician, Clinical Governance lead, special interest in Diabetes
- 6- Dr K. Berankova, consultant paediatrician, special interest in paediatric respiratory medicine
- 7- Dr E. Banda, Locum consultant paediatrician
- 8- Dr S. Arjunan, consultant paediatrician
- 9- Dr E. Koumbaras, Locum consultant paediatrician
- 10- Dr Elgadi, Locum consultant paediatrician
- 11- SCU ward manager; Lesley Brown

West Cumberland Hospital

- 1- Dr Sarah Pennington, consultant paediatrician, College tutor, POSCU lead
- 2- Dr Amal Kona, consultant paediatrician
- 3- Dr A. Kannat, Locum consultant paediatrician
- 4- Dr A. Taufik, Locum consultant paediatrician
- 5- Dr P. Ward, Locum consultant paediatrician
- 6- Dr Yee Mon Aung, Specialty doctor in paediatrics and neonatal lead
- 7- Dr K. Eapen, Specialty doctor in paediatrics
- 8- Dr D. Sailer, Specialty doctor in paediatrics
- 9- Dr V. Thomas, Locum Specialty Doctor in paediatrics
- 10- SCU ward manager, Claire Peters

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 3 Neonatal Intensive Care Units (NICUs) and 8 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- via the Data Manager- circulates quarterly performance reports as well as NNAP and other appropriate reports. They also produce detailed reports for the Local Maternity Systems 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).

At WCH, Celia Braithwaite, is an NLS instructor who teaches NLS and PROMPT.

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. Detailed feedback from the quarterly Network meetings is also shared across the Trust.

Patient experience

Parent/carer feedback is circulated to nursing and medical staff and is discussed at Child Health monthly governance meetings. The Network also makes collated feedback from parents available to Unit managers as it is supplied

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 in November 2017 to award Cumberland Infirmary, NCUH, Stage 2 Baby Friendly Accreditation. In July 2018, Following UNICEF, UK assessment, WCH, Whitehaven passed BFI, Stage 2 with positive feedback.

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.

The Bedside Clinical Guidelines have been adapted for local use, together with locally developed guidelines, NNN guidelines; **all had been uploaded on the Trust Intranet in one folder allowing access for nursing and medical staff.**

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

Local guidelines approved in 2017-2018 by MAGIG and maternity governance groups

- 1- Neonatal hypoglycaemia, updated and ratified
- 2- NEWTT observation charts, have been adapted for local use
- 3- Bili app based on NICE guidelines has been added to the trust intranet

Guidelines under review

- 1- Response to ATAIN, a cross site audit into the term admission to SCU is currently underway
- 2- MgSO4 for preterm deliveries, PReCePT

Other achievements

- 1- A few more 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 audit into the management of congenital neonatal infection screening in the newborn.

- 3- SCU has managed to recruit a few new members of nursing staff
- 4- Parent/carer feedback to both SCU units continues to be outstanding

NCUH Data

The main area for improvement is reducing term admissions to SCU in both units. This is now a national drive as part of the ATAIN project to prevent separation of babies and mothers. The 2nd principal reason for admission following preterm birth was respiratory disease. Other major causes for admission included monitoring (short observation), suspected infection, hypoglycaemia and continued care.

An ongoing audit into term admissions will help provide more information on further management of such cases and if the admission could have been avoided. Maternity service is considering provision of Transitional care on both sites, this will help reduce term admissions to SCU. Transitional Care steering group has been formed to facilitate this.

Cumberland Infirmary	2013	2014	2015	2016	2017
Live Births	1697	1748	1695	1708	1636
Admissions	243	204	235	231	207
Term Admissions	114	89	103	126	115
IC days	29	20	28	27	10
HD days	90	121	117	131	99
SC Days	1909	1690	1795	1619	1654
NC Days	657	458	522	147	95
TC days	200	152	139	195	207

Cumberland Infirmary	2013	2014	2015	2016	2017
Admissions	243	204	235	231	207
Inborn - booked	205	171	189	190	170
Inborn -booked elsewhere	2	3	4	5	3
Re-admission	16	15	21	18	12
Postnatal transfer in	13	10	13	11	17
Other*	7	5	8	7	5

Gestation					
<26	2	3	2	1	1
26-30	17	17	14	14	16
31-36	110	95	116	89	75
37+	114	89	103	127	115
Total	243	204	235	231	207

*includes un-booked, home admission, Cannot derive

Cumberland Infirmary					
Resp support days	2013	2014	2015	2016	2017
Ventilation no. of babies	17	11	17	10	7
Ventilation no. of days provided	22	13	21	11	8
nCPAP no. of babies	32	39	40	37	35
nCPAP no. of days provided	66	87	85	94	78

West Cumberland Hospital	2013	2014	2015	2016	2017
Live Births	1328	1222	1182	1244	1234
Admissions	197	146	178	142	142
Term Admissions	109	61	91	65	72
IC days	35	17	23	15	18
HD days	89	60	104	71	129
SC Days	1773	1568	1490	1513	1163
NC Days	302	268	159	30	20
TC days	0	0	0	0	0

West Cumberland Hospital	2013	2014	2015	2016	2017
Admissions	197	146	178	142	142
Inborn - booked	148	114	124	110	105
Inborn -booked elsewhere	5	5	10	3	5
Re-admission	22	13	25	14	11
Postnatal transfer in	4	8	9	10	5
Other*	18	6	10	5	16
Gestation					
<26	1	3	1	2	2
26-30	13	10	17	19	6
31-36	73	72	69	56	62
37+	110	61	91	65	72
Total	197	146	178	142	142

*includes un-booked, home admission, Cannot derive

West Cumberland Hospital					
Resp support days	2013	2014	2015	2016	2017
Ventilation no. of babies	18	10	15	13	13
Ventilation no. of days provided	22	13	20	15	17
nCPAP no. of babies	17	13	21	18	12
nCPAP no. of days provided	42	30	75	52	24

All Admissions

Reason for admission 2017	Cumberland Infirmary
Preterm	60
Respiratory disease	44
Monitoring (short observation)	25
Hypoglycemia	19
Infection suspected/confirmed	18
Continuing care	12
Poor feeding or weight loss	11
IUGR/SGA	5
Congenital anomaly suspected/confirmed	3
Investigation	3
Social issues/foster care	2
Jaundice	1
Convulsions suspected/confirmed	1
Poor condition at birth	1
Birth trauma/injury	1
Re-admission	1
Total	207

Term Admissions

Reason for admission 2017	Cumberland Infirmary
Respiratory disease	36
Monitoring (short observation)	22
Infection suspected/confirmed	15
Hypoglycemia	13
Poor feeding or weight loss	8
Continuing care	7
Congenital anomaly suspected/confirmed	3
Investigation	3
Social issues/foster care	2
Jaundice	1
Convulsions suspected/confirmed	1
Poor condition at birth	1
IUGR/SGA	1
Birth trauma/injury	1
Re-admission	1
Total	115

All Admissions

Reason for admission 2017	West Cumberland Hospital
Preterm	40
Respiratory disease	34
Infection suspected/confirmed	21
Poor feeding or weight loss	12
Hypoglycemia	8
Monitoring (short observation)	6
IUGR/SGA	4
Jaundice	4
Continuing care	3
Cardiovascular disease	3
Social issues/foster care	2
Poor condition at birth	2
Congenital anomaly suspected/confirmed	1
Re-admission	1
Failed oximetry testing	1
Total	142

Term Admissions

Reason for admission 2017	West Cumberland Hospital
Respiratory disease	25
Infection suspected/confirmed	12
Poor feeding or weight loss	10
Hypoglycemia	7
Monitoring (short observation)	5
Jaundice	4
Social issues/foster care	2
Poor condition at birth	2
Cardiovascular disease	2
Continuing care	1
Congenital anomaly suspected/confirmed	1
Failed oximetry testing	1
Total	72

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 skills mix and training up Band 6 and Band 5 to more senior positions. The current paediatric consultant rota at CIC ensures 24 senior paediatric cover (resident consultant rota).
- 2- Geography, North Cumbria is a large area and transfers to and from both units require close liaison with tertiary unit and NNeTS
- 3- Reducing term admissions as part of ATAIN project, this is a challenge due to lack of formal TC provision. Development of transitional care on both sites is currently being considered.

Closing remarks

Both units endeavour to provide high quality neonatal care as per national and regional standards and work closely with the regional NICUs in the region as part of the NNN. The ongoing reconfiguration of maternity services in North Cumbria poses a challenge but the paediatric department continue efforts to recruit to both units to meet national standards.

If you have any comments please email

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