ANNUAL REPORT 2016

Special Care Baby Unit

Gateshead Health NHS Foundation Trust

Index

1. Foreword

This Special Care Baby Unit service annual Report is part of three documents that formalise and demonstrate the commitment of the service to provide high quality, family centred care to our babies and their families. The report is offered as a resource for the Trust and the Neonatal Network. The Report will provide details of the activity captured by Badgernet and a summary of both challenges and achievements of the Special Care Unit in 2016.

The production of this report is a result of team contribution and would not be possible without the hard work, and compassion of the whole team involved in delivering our service. The contribution of the Neonatal Network to facilitate data support and regional leadership must also be acknowledged.

Documents to support the Annual report

All of the documents highlighted below support this annual report.

Annual Report	Work Programme	Operational Policy
This will provide a summary assessment of key achievements and challenges within the agreed time period • **Provide a summary of implementation of previous year's work-programme** • **Demonstrate that the service is using available information and relevant data to assess its own service** • **Demonstrate consideration and discussion of performance against relevant clinical indicators**	• Illustrate how the service is planning to address potential weaknesses and further develop the service • Outline the SCBU/Maternity plans for service improvement and development over the coming year • Identify actions resulting from audit and from previous Neonatal or external reviews	• Provide an illustration of the service including current Neonatal /Maternity Network configuration and governance processes • Describe how the service functions and how care is delivered across the patient pathway • Outline policies/processes that govern safe/high quality care • Confirms agreement to and demonstration of the clinical guidelines and treatment protocols for the service and how this is aligned with the Networks regionally

2. Abbreviations/definitions	
Badgernet	**The National neonatal dataset collection system**
High Dependency (HD)	**Involves care for babies who need continuous monitoring, for example those who weigh <1000g (2lb 3oz), or are receiving help with their breathing via continuous positive airway pressure (CPAP) or intravenous feeding, but who do not fulfil any of the requirements for intensive care.**
Inborn	**Born in or en-route to the Gateshead Maternity Unit.**
Neonatal Intensive Care Unit (NICU).	**Larger intensive care units that provide the whole range of neonatal care for their local population and additional care for babies and their families referred from the neonatal network in which they are based, and also from other networks when necessary to deal with peaks of demand or requests for specialist care not available elsewhere.**
Intra-Uterine Transfer (IUT)	**Transfer of a pregnant woman to a hospital with facilities and capacity to meet the baby's needs should the baby deliver in a DGH.**
Livebirth	**Bab born alive regardless of duration of gestation**

Nasal Continuous Positive Airway Pressure (nCPAP)	**Non-invasive respiratory support for the management of mild to moderate respiratory disease.**
Outborn	**Born in another NHS Maternity unit and transferred to Gateshead for Special Care.**
SCBU or SCU	**Provided for all other babies who could not reasonably be looked after at home by their mother. Babies receiving special care may need to have their breathing and heart rate monitored, be fed through a tube, supplied with extra oxygen or treated for jaundice.**
Transitional Care (TC)	**Special Care which occurs alongside the mother but takes place outside the neonatal unit, in a ward setting.**
Postnatal Ward (PNW)	
Stillbirth	**Death before delivery at > 24 weeks gestation**

3. Service Profile 2016

The service has undergone a number of changes 2015-16. We have reduced our cot capacity from 13 in 2015 to a current capacity of 8 cots.

The CQC inspection visit in 2015 highlighted that cot occupancy was only around 50%. Following an internal review by the medical business unit service line manager, senior medical team and Associate director, a decision was made for the cot numbers to be reduced to 8. In June 2016 the SCBU moved to the Surgical Business Unit to be aligned with the Maternity service which is in the Surgical Business Unit. The SCBU is co-located within the Maternity unit and for this reason the management is now under the nurse/midwife leadership of the Head of Midwifery and direct operational line management by the Matron for Maternity. The plan for development of the ANNP role to support this clinical and operational leadership is directly explained in the work programme.

In agreement with the Northern Neonatal Network it was agreed that 2 of these could be designated as high dependency where non-invasive ventilation (nasal CPAP) can be performed. The unit aims to provide care for all babies born at or greater than 32 weeks. If a baby is born unexpectedly before 32 weeks, the unit has the capability of stabilization services.
As a member of the Northern Neonatal Network, we attempt to provide appropriate care for infants in the most appropriate setting for their needs as close to home as possible. This means resuscitation and stabilisation of the sickest infants whose care is then transferred to level 3 units. By providing 'step down', infants from Gateshead can be returned closer to home, freeing up cots for the sickest infants to be accommodated in level 3 units.

If infants require on going care from discharge the Community Children's Nursing Team will provide support and home visits to infants and their families. Medical staffing is provided at 3 tiers presently. Senior medical staffing is provided by general paediatricians, as occurs in most medium sized district general hospitals. As part of an operational network, we have close ties with 2 NICO's in the northern part of the Norther Neonatal Network, Sunderland Royal Hospital and the Royal Victoria Infirmary. Transporting of vulnerable infants is now undertaken by a dedicated transport team (NECTAR).

Northern Neonatal Network App

More information on our neonatal units and background information for parents and babies in our care are available via the free Northern Neonatal Network App, available for Apple and Android (iTunes and Google play stores).

Anonymous feedback can also be left via this App.

4. Philosophy of Care

The staff within SCBU believes that the parent/infant relationship is central to their philosophy of providing family centred care. In order to achieve this, the staff work as a team in assessing, planning, implementing and evaluating care. The staff within SCBU are supported in their promotion of Family Centred Care by being an integral part of the multi-disciplinary team. The staff aim to provide the optimum environment for the development of a good parent/infant relationship by recognising the importance of involving parents and other family members in all aspects of care of their baby.

5. Infant Feeding

Breastfeeding and the Unicef Baby Friendly Initiative

At a time when breastfeeding initiation rates in the UK can be seen to be improving, continuation rates at 6 weeks and beyond remain low both nationally and regionally. As a healthcare service providing maternity care, we are in a prime position to provide breastfeeding education and support, both antenatal and postnatal, to women and their families. It is this which empowers, allows informed choice and fosters support for sustaining breastfeeding in the time which follows.

To achieve this, staff must be well educated and an effective and consistent culture nurtured, as must those in managerial and leadership roles. There are also practical measures, for example, provision of breast pumps and an environment conducive to establishment of breastfeeding. The Unicef Baby Friendly Initiative (BFI) has been found to be one of the most effective methods of improving breastfeeding rates and a recognised quality standard.

The BFI influences policy and practice across government, healthcare and the voluntary sector. It promotes close and loving relationships whether babies are breast of formula fed, so parents know how best to respond to their baby's needs and so both they and their baby feel secure and loved.

Together the Maternity and SCBU unit continue to co-produce and align our policies to continue the process of achieving Baby Friendly Accreditation. We have current accreditation at Stage 1, however the standards have changed and for 2017-18 we aim to align with the Maternity service and apply for accreditation with the new standards and then continue immediately to move towards accreditation at Stage 2.

We have a breastfeeding champions in the SCBU and the Maternity unit and BFI and feeding leads in place and staff in line to attend refresher BFI training to cascade back to the team. The BFI and feeding leads for the unit are to attend the annual BFI conference and feedback

to the unit methods to provide best care and practice for the women and their families, and with regards to the unit and its progression to BFI accreditation.

The SCBU unit environment supports bonding between parents and babies and has recently purchased recliners for skin to skin and comfortable feeding, screens for privacy and relaxation and we have a dedicated expressing room with electric pumps. All staff have attended a two day breastfeeding workshop. We have long held good links with local breastfeeding and parent support as well as services to loan pumps at affordable rates for our parents.

6. Family-centred Care and BLISS

Our participation in Family-centred care focusses our team on helping parents provide care for their baby, and recognises how essential their role is in their baby's development. We have aimed to cultivate a partnership between parents and our SCBU unit staff and hopefully empower our parents.

Family-centred care is encapsulated within national standards for safe, high quality neonatal care provision. Drawing upon these standards, BLISS developed the Bliss Family Friendly Accreditation Scheme, a tool for neonatal units to self-assess the quality of family-centred care provided through the Baby Charter audit. We have a multidisciplinary team in place to work together towards accreditation and leads for each of the Baby Charter principles.

Since completing the initial audit, our unit signed a pledge of improvement and has made improvements which, on re-audit, brought us yet closer to accreditation standard. These included purchasing recliners for skin to skin and promoting loving relationships, plans in place for provision of a toilet for parents, sibling bags with activities in and that they can add to themselves and take home when baby goes home. We have also focussed on sound reduction and controlled light levels, with new dimmable lighting fitted. We embrace parents as partners in care and have set in place for parents to take more of an active role in their baby's care, including taking temperatures, weighing their baby, recording skin to skin, charting feeds. We continue to achieve all the principles of the Baby Charter and provide best possible care and experience throughout families' time on our unit.

7. Developmental Care

Despite improvements in the preterm neonatal intensive care, brain injury remains a major cause of death and serious lifelong disability. Significant numbers of babies go on to develop cerebral palsy, learning difficulties and cognitive impairment. It is of utmost importance that ongoing care of very preterm babies within the SCBU setting and all babies admitted to the unit are given the optimum support to minimise the impact the artificial extra uterine environment has on the developing infant's brain.

The implementation of development care in SCBU is currently being incorporated into the unit family centred care philosophy. It is being led by a developmental care nursing lead and team members with a special interest who have completed the Foundation Toolkit Study Day in Infant Neurodevelopment offered by the Northern Neonatal Network.
Cascading of the toolkit training is done on a 1 – 1 basis with staff by coaching in the workplace, which has been shown to be a beneficial training tool to translate new knowledge and skills into practice. Through working in partnership with parents, care interventions are based on individual babies needs by encouraging their participation in supporting their baby's neurological, physical, physiological and psychological development. Utilising the Bliss "look at me I'm talking to you" leaflet and Caring for your Baby in the Neonatal Unit parents handbook (Inga Warren and Cherry Bond), has increased parents understanding of their babies special needs. Kangaroo care is standard practice and encouraged for both parents and positive touch encouraged.

Plans for the coming year include an internal developmental care training day for staff to incorporate a general update on current evidence, positioning, wrapped bath, etc. and to review positioning aids.

Work is articulated in the work programme to improve the environment of the nursery to enhance the calming atmosphere with muted colours, lower lighting and minimised noise. New reclining chairs have been purchased for breastfeeding and kangaroo care and have been received well by the parents, which in turn, means they spend longer with their baby

ensuring they are building a strong and loving relationship, understanding how their baby communicates and empowering them as a family unit in readiness for home

8. Transitional Care

During 2016 we began to plan how we could support the postnatal ward with babies who need not be admitted to the SCBU and could stay with their mothers on the ward. We do not have a transitional care ward or a dedication care pathway however we have drafted this and this will form the basis of the development of our service and team. We are in the planning stage of improving and developing our transitional care pathway which is underpinned by the development and succession planning of our current and future Advanced Neonatal Practitioner team. In close partnership with the Neonatal network, our midwifery colleagues transitional care plans are implemented for babies on the maternity unit with the aim of keeping mother and baby together where possible.

9. Reduction of Term admissions to SCBU

A patient safety alert was issued in February 17 in which concerns about the numbers of term admissions admitted to Neonatal units nationally were highlighted.
Prior to this alert, as a SCBU and Maternity unit together we have been working together to monitor our term admissions via our joined perinatal mortality meetings and the reasons for these. This is also monitored on the Maternity dashboard. Term admissions are 6%.
The themes noted in 2016 mirrored the national findings and were noted to be:

- Hypoglycaemia,
- Jaundice,
- Respiratory conditions
- Sepsis
- SGA (small for gestational age)

This quality improvement is a key them in our work programme for 2017-2018.

10. Unit Activity

Data
Date is collected using the Neonatal Badger platform. This information is entered daily and data is collated and regularly fed back to the units in quarterly reports by the Network Management Team. This data is also automatically collected for the National Neonatal Audit Project which is published annually and allows a comparison of units of a similar size. Mark Green the Network administration manager provides information in a more easily presented

format which enables comparisons of similar level 1 or level 3 units within the network. This is shared among the teams at Safecare and quality meetings.

11. Interpretation of Activity

The total number of deliveries has remained stable at between 1850 -2000. The percentage of admissions is just above 10%. Gateshead as a population group in National Statistics does have a high deprivation score. We have a higher than national average rate of Small for Gestational age infants and this directly impacts upon SCBU admissions.

Impact of reduction of cots on occupancy levels.

Month	Jan 16	Feb 16	March 16	April 16	May 16	June 16
occupancy	55.91%	50.86%	71.51%	95.42%	73.37%	86.25%
cots	12	12	12	8	8	8
Month	July 16	August 16	Sept 16	Oct 16	Nov16	Dec 16
occupancy	88.71%	62.10%	70.83%	80.84%	103.33%	87.5%
cots	8	8	8	8	8	8

12. Quality Improvement

The Trust was inspected in September 2015 as part of the CQC's comprehensive inspection programme. The Trust was rated overall as Good with Outstanding for Caring and the Maternity service was rated Outstanding.

There were some key recommendations which have been actioned or incorporated into our work plan:

- Access to cots and incubators in the two special care rooms was restricted as one side (the long side) of each cot was against the wall.
- We have reduced the number of cots to eight on a permanent basis from April 2016, which has increased the amount of space on the unit.
- Resuscitation equipment checks were not consistently completed in line with policy.
- Ensure processes are consistently followed particularly in SCBU and critical care for the checking of resuscitation equipment.
- Ensure that SCBU moves towards introducing a National Early Warning Score chart. **We did review this via the Neonatal Network and this was not done in many of the units therefore we have developed a track and trigger assessment from delivery suite.**
- Ensure where required, staff are up to date with Paediatric Immediate Life Support (PILS) and Advanced Paediatric Life Support (APLS) training.

13. Saving babies lives campaign – Reduction of stillbirth and Neonatal deaths

The Maternity Service continues to exceed the national detection rate of SGA babies following the implementation of the Perinatal Institute's GROW training package. Our average detection rate for July 2016 to June 2017 was 56% compared with the national average of 40%. As we do not have a fully developed transitional care pathway as yet some SGA infants are admitted to the SCBU for initial observation and this has affected our admission rate as demonstrated in quarterly network reports.

National database reporting

MBRRACE- UK Perinatal Mortality Surveillance Report (published June 2015)

The clinical lead for SCBU presented an overview and actions to the Northern Neonatal Network/NHS England commissioner in September 2016

The Northern region was identified as an outlier nationally with a significant variation in perinatal mortality rates from 4.9 to 7.1 deaths per 1000 births. The Northern Neonatal Network had been asked by NHS England to co-ordinate how Trust's in the Northern region are addressing the recommendations within the MBRRACE-UK report 2015. A regional meeting was held on the 20th October 2016 to present and discuss the actions of each Trust
This most recent MBRRACE report focuses on losses which occurred between January and December 2014. Whilst this report demonstrated a slight improvement in our local data, Gateshead Hospitals NHS Trust was highlighted as an amber outlier as our losses were 10% higher than the average for similar sized Trusts.

All Trusts who were noted to be amber or red reports were asked to undertake detailed local reviews of all cases for 2014. The report for Gateshead highlighted that our population was in the most deprived demographic area.

The Head of Midwifery requested a regional peer review of the 2015 data and this found that if there is a pattern, it is that a high proportion of the antepartum stillbirths were in babies who were growth restricted. The pattern for the years 2012, 2013, 2014 is very similar. The review demonstrated that the Gateshead geographical area had almost double the rate of deaths from IUGR compared to crude national data and that the local population's prevalence in risk factors such as raised BMI was also high. Careful data analysis reassured the department that the rise was unfortunate but that this was not a rising trend with obvious contributing factors.
This information was shared at the department's Safe Care and Perinatal meeting and was also presented to the Trust board.

No of stillbirths and early neonatal deaths in financial years 2014/15 & 2015/16		
Month/Year	**14/15**	**15/16**
April	1	1
May	2	0
June	0	0
July	1	0
August	0	0
September	1	0
October	0	0 (+1*)
November	2	0
December	1	0 (+1**)
January	0	2
February	0	1
March	0	0
Total	8	4

* Baby delivered at 23 weeks gestation following medical termination for fetal abnormality. This baby has been entered onto the MBRRACE database as required. ** Baby delivered at 26+2 weeks following medical termination for fetal abnormality. This baby has been entered onto the MBRRACE database as required

14. NNAP Audit

From the results of NNAP, we need to improve our documentation of discussion with families by senior staff. Whilst we feel this is done, accurate documentation and recording of this consultation on Badger requires improvement. Similarly, recording of 2 year follow-ups is variable. This will be part of our work plan and reported via our Safecare quality meetings.

15. Lessons learned

Newborn readmissions:

Newborn readmissions continue to present a challenge to the maternity service due to the reconfiguration of the paediatric service; a significant proportion of these readmissions are babies who have been induced for suspected small for gestational age at around 37 weeks gestation. All of these babies remain in hospital until they are at least 24 hours of age and are observed at regular intervals. Whilst 37 weeks gestation is defined as 'term', these babies may need additional support with adaptation to extra-uterine life and feeding. Jaundice and support with feeding are the main reasons for readmission. The service continues to participate in multidisciplinary discussions with the maternity team and partner agencies to develop an appropriate pathway to support families in the community with feeding issues. Band 3 support workers continue to assist with feeding issues on the postnatal ward and in the community.

Work is underway with regards to producing guidance for caring for babies in the early neonatal period who are identified as small for gestational age at birth as these babies are recognised as being at risk of increased morbidity and this will be aligned with the transitional care improvement pathway.

Newborn risk assessment:

This tool was introduced in the late summer of 2016 and is designed to identify those babies at increased risk of developing problems in the immediate period following birth. The risk assessment is to be completed on the delivery suite however its implementation coincided with the implementation of the electronic badger record which led to issues with staff completing the paper record in a timely manner. As a result, the risk assessment was attached to each baby's drug kardex – subsequent auditing demonstrated a significant improvement in the number of risk assessments being completed.

16. Development of SCBU environment

The special care baby unit has received some significant charitable fund donations in the last financial year. After consultation with staff and our service users it is planned to improve the current estate to include improved facilities for our mums, babies and their families.
We will utilise friends and family feedback and the Network parent satisfaction survey as recent feedback on our facilities has highlighted the need for a parent toilet on the unit.

17. Training

We continue to send our team on the Newborn Life Support 1 day course to ensure 4 yearly registration. In addition to re-certification the service supports annual updates for all staff with our in house NLS trainers. All new paediatric doctors are required to attend the course.

The SCBU hosted a Network stabilisation day in 2015 and another day is planned for October 2017.

We plan to train nurses in examination of the newborn to support the development of the transitional care pathway.

18. Family Experience

Our Friends and family responses for SCBU are consistently positive and rate the care and compassion of the staff highly. We have challenges with the environment which we have plans to address in the work programme for 2017. The feedback from parents is that they would like a toilet on the SCBU and we have requested plans for consideration. We will utilise friends and family feedback and the Network parent satisfaction surveys to ensure that we involve all our families to create a family focused experience.
We will sign up to the Bliss Baby Charter and ensure that we use the specifically designed framework to help our team make family-centred care a reality.

Patient Story

'*My daughter Jess recently left special care on the 31st of July 2017. I was asked to fill in a survey but filled it in quick as I was dying to get my daughter home. There is a section on which midwifes stood out to me. All the midwifes and staff were amazing but want to say a massive thank you to sister Taylor who was one of the first midwifes I met her care for all babies goes above and beyond and treats them all like her own.*
She's especially strict on cleanliness and is the first to point out if you have forgot to wash your hands or take your coat off on top of running a demanding ward full of babies will use any spare time to offer support and comfort to parents.... young Alex

is abously lovely midwife at first I thought she was a trainee with being so young but she is amazing at her job my daughter being a few weeks old would look for her if she heard her voice she was amazing with the babies.... I can't remember one of the midwifes name but I'm guessing she was in her 50s and wore a light purple uniform she was also amazing so kind and caring.... barerbra I didn't meet till later in my daughters stay at special care but she was there when I got the diagnosis of my daughters condition and was amazing support would help with any queries... Katherine was another midwife I met later but would always check on you making sure jess and parents were OK and very helpful and amazing with jess.
I cannot fault any midwife in anyway... they were all equally amazing. For the first few weeks of Jesse's life they were practally her family and she was treat like that they have done so much for my little girl and I can't thank them enough as it's been a rollercoaster 5 weeks and been such a hard stressful time the only comfort I had is that she was being well looked after.
And saved the best till last Dr Bosman I owe my daughter life to you. He picked up on a condition that is so hard to see in babies I'm thankful for all the tests and help he put in place for her before she ran into problems later in life. She's had a full m.o.t and put in place a team of people to help with my daughters care..... thank you s.c.b.u you've been amazing xxx'

19. <u>Summary</u>

We will continue to work closely with the Northern Neonatal Network and our regional colleagues to share best practice and benchmark our quality outcomes. Family Centred care is central to our philosophy and this will be demonstrated in our service developments in the future.

Dennis Bosman Clinical Lead for SCBU
Lesley Heelbeck Head of Midwifery
With acknowledgments to the sterling contributions to this report and the compassionate care given to our babies made by all of the SCBU team.