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National Neonatal Audit Programme

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Royal College of Paediatrics and Child Health,
National Neonatal Audit Project Board

Neonatal Data Analysis Unit (NDAU),
Imperial College, London

RCPCH
Royal College of
Paediatrics and Child Health
Leading the way in Children's Health

Extended online version

Annual Report

National Neonatal Audit Programme

2013

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Commissioned by the Healthcare Quality Improvement Partnership

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CONTENTS

1. Introduction **3**
- 1.1 Background
- 1.2 Aims of the audit
- 1.3 Defining babies for inclusion in NNAP

2. Methodology **6**
- 2.1 Case ascertainment
- 2.2 Audit questions
- 2.3 Participating units
- 2.4 Data completeness and quality
- 2.5 Data analysis
- 2.6 Denominator data
- 2.7 Neonatal unit designations

3. Results **10**

4. Audit developments in 2014 **165**
- 4.1 Changes to the audit questions
- 4.2 Changes to NNAP analyses
- 4.3 Improved online reporting: NNAP Dashboard
- 4.4 Expansion of the audit
- 4.5 Identification of outliers
- 4.5.1 2012 data outliers
- 4.5.2 2013 data outlier analysis
- 4.6 NNAP data entry guidelines
- 4.7 Survey of NNAP users
- 4.8 NNAP and the National Neonatal Research Database

5. Future developments **173**
- 5.1 Parent Reported Experience Measure (PREM) pilot
- 5.2 Clinical Reference Advisory Group
- 5.3 Risk adjusted mortality
- 5.4 Reporting on existing audit questions
- 5.5 New audit questions

Appendices

A NNAP unit leads **174**
B 2013 audit dataset **179**
C Participating units **182**
D TRPG/send/NNAP two–year corrected age outcome form **187**
E NNAP audit questions 2014 **188**
F Organisms reported to NNAP during 2013 **189**

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1. Introduction

Welcome to this seventh annual National Neonatal Audit Programme (NNAP) report covering the period from 1 January 2013 through 31 December 2013.

This year's report includes data from all 179 English and Welsh neonatal units (NNU) open in 2013, comprising 91,232 completed episodes involving 80,000 babies discharged during the calendar year.

Key messages

- **Data completeness:** Feeding and temperature data remains very good, and data completeness for questions such as that concerning Retinopathy of Prematurity (ROP) is much improved – 94% of eligible babies now have at least one ROP screen recorded, up from 79% in 2012. Data completeness for infection related questions is still poor.

- **Hypothermia matters:** 93% of babies born at less than 29 weeks can now be shown to have had a temperature measured within an hour of birth – increasing from 89% in 2012. Hypothermia remains depressingly common – 12% of these babies had a temperature below 36°C, which shows only a small improvement on 16% in 2012. 41% remain hypothermic with a temperature below 36.5°C (43% in 2012). Some variation between units is shown, representing an opportunity to improve care.

- **Antenatal steroids are the best evidenced health promotion strategy in neonatology:** Aggregate rates of antenatal steroid cover are now high at 83% and close to the NNAP standard of 85%, albeit not as high as sometimes seen in the selected populations enrolled in clinical trials. Rates are currently increasing year on year. A plateau in rates can be expected in future, particularly given the low rates of missing data. However, some variation in rates of administration is notable between NNUs and between networks. For some units and networks increasing rates of antenatal steroid usage may represent an important quality improvement opportunity.

- **Retinopathy of Prematurity:** 87% of eligible babies had their first ROP screening recorded as done within a week of the nationally recommended time window. This remarkable 27% improvement (18% accounting for the change in measurement) in one year probably reflects greater data completeness. Just 6% appear to have had no screening at all. 9% of babies had their first screen after discharge. As was the case in 2012, a significant number of babies appear to have been screened at the wrong time. **The data suggest that smaller, more mature babies - particularly growth retarded babies born after 32 weeks gestation - are not always screened.** Where such screens are accidentally missed, it represents a real opportunity for quality improvement.

- **Breast milk at discharge home:** The proportion of babies <33 weeks gestation discharged home receiving any breast milk rose from 54% in 2011 to 58% in 2012 and 59% in 2013. A striking geographical variation divides the high and low outliers.

- **Senior staff consultation:** 84% of parents were recorded to have spoken to a senior member of the neonatal team within 24 hours of their baby's first admission, up from 79% in 2012 and 68% in 2011.

- **Two-year health status:** 44% of babies <30 weeks gestation born in 2010/11 had any two-year follow-up data entered, compared with 42% in 2012. Neonatal networks varied in their success in delivering two-year follow up – proportions of babies with data entered varied from 27% to 75%. Given the importance of follow up after premature delivery and its inclusion in the service specification, this represents an important quality improvement opportunity for neonatal teams.

- **Outliers:** After extensive discussion with with the National Advisory Group for Clinical Audit and Enquiries (NAGCAE) and HQIP, and taking into account user feedback and the views of professional bodies, the outlier analysis for the 2013 data and onwards has been reviewed. Only units submitting data with 90% or more completeness for the outlier analysis questions (feeding at discharge, ROP screening, temperature on admission, parental consultation) have been considered for potential outlier status. Those units identified as outliers on the 2012 data (for time of first temperature and ROP screening) and those units identified as outliers for the 2013 data are listed in this report. Units with insufficient data to participate in the outlier analyses are indicated in the tables.

1.1 Background

The National Neonatal Audit Programme (NNAP) is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit Programme (NCA). The programme is funded by NHS England and the Welsh Government. It is delivered by the Royal College of Paediatrics and Child Health (RCPCH) Clinical Standards department within the Research and Policy Division. The audit commenced in 2006 and was rolled out throughout England in 2007, with Wales coming on board in 2012.

1.2 Aims of the audit

The key aims of the audit are:

i. To assess whether babies admitted to NNU in England and Wales receive consistent care in relation to the audit questions; and

ii. To identify areas for quality improvement in NNUs in relation to delivery and outcomes of care.

1.3 Defining babies for inclusion in NNAP

NNAP considers processes and outcomes of care of babies admitted to NNU. Data utilised by the NNAP are entered by NHS Trusts in different ways. Some Trusts include babies cared for in 'transitional care' wards; some, but not all, enter data for babies admitted to a neonatal unit for only a brief stay; some include babies receiving care by neonatal unit staff even though the baby remains by his or her mother's side on a postnatal ward.

Because of the resultant potential for inconsistent application of the audit questions, NNAP has responded to the points raised by colleagues and adjusted the way that one question in particular is analysed. In order that comparable babies are considered for the 'parental consultation question', only babies in receipt of HRG3 care or above are considered, and this only where it takes place in a 'NICU' (which in this context includes Local Neonatal Units and Special Care Baby Units). Broadly HRG3 equates to 'special care' in previous descriptions of dependency[1], and in particular babies receiving special care with parent present (HRG4) which may be carried out on a Transitional Care Unit, are excluded. Even with this adjustment it appears some units manage brief admissions to NNU differently, with some creating an admission on Badger and others not doing so. For the 2013 data therefore, babies with a first admission shorter than 12 hours have been excluded from this analysis.

1 Information related to neonatal HRGs can be found on the Information Centre website - http://www.ic.nhs.uk/services/the-casemix-service/using-this-service/reference/archived--past-groupers-and-documentation/payment/hrg4-2011-12-local-payment-grouper-documentation

2. Methodology

2.1 Case ascertainment

Data for the NNAP analyses are extracted from the National Neonatal Research Database (NNRD) held at the Neonatal Data Analysis Unit (NDAU). The NNRD contains a predefined set of variables (the National Neonatal Dataset) obtained from the operational, electronic neonatal patient records of each participating NHS Trust. Data are downloaded from the Badger3 and BadgerNet patient record systems used in NNUs and transferred to NDAU with Trust Caldicott Guardian approval. Every baby admitted to the NNU would be expected to be entered on this system, and would also be eligible for inclusion in NNAP; the audit therefore achieves 100% case ascertainment. Babies receiving special care in transitional care or postnatal wards can also be entered. Data utilised for the NNAP analyses change year on year in keeping with changes to the audit questions.

For this report, the cohort comprises all babies with a final discharge from neonatal care from 1 January to 31 December 2013.

2.2 Audit questions

The questions posed in the audit in 2013 were:

1. Do all babies of less than or equal to 28^{+6} weeks gestation have their temperature taken within an hour after birth?

2. Are all mothers who deliver babies between 24^{+0} and 34^{+6} weeks gestation given any dose of antenatal steroids?

3. Are all babies with a gestational age at birth $<32^{+0}$ weeks or <1501g at birth undergoing first Retinopathy of Prematurity (ROP) screening in accordance with the current national guideline recommendations?

4. What proportion of babies of $<33^{+0}$ weeks gestation at birth are receiving any of their mother's milk when discharged from a neonatal unit?

5. Is there a documented consultation with parents by a senior member of the neonatal team within 24 hours of admission?

6. Are all babies accessing neonatal services treated in their own network (except where clinical reasons dictate)?

7. Are rates of normal survival at two years comparable in similar babies from similar neonatal units? (*In 2013 we are auditing babies of $<30^{+0}$ gestation at birth.*)

8. What percentage of babies admitted to a neonatal unit have:
    - one or more episodes of a pure growth of a pathogen from blood
    - one or more episodes of a pure growth of a pathogen from CSF
    - either a pure growth of a skin commensal or a mixed growth with $\geq$3 clinical signs at the time of blood sampling

9. What percentage of babies of more than or equal to 35^{+0} weeks gestation have an encephalopathy within the first three calendar days of birth?

10. How many blood stream infections[a] are there on a NNU per 1,000 days of central line[b] care?

[a]the growth of a recognised pathogen in pure culture, or in the case of a mixed growth, or growth of skin commensal, the added requirement for 3 or more of 10 predefined clinical signs

[b]central line = UAC, UVC, percutaneous long line or surgically inserted long line.

These questions are addressed by the data items listed at Appendix B.

2.3 Participating units

There were 179 NNU in operation in England and Wales during 2013; all of which contributed data for this report (NNU levels SCU, LNU and NICU. Definitions of the different categories of care can be found on page 9 of this report). The results for James Cook University Hospital, Middlesbrough, include those of Friarage Hospital as these units submit one combined set of data for South Tees Hospitals NHS Trust and the Leeds Neonatal Service covers both Leeds General and St James's Hospitals. Similarly, data for the Leicester neonatal service includes data for Leicester General Hospital and Leicester Royal Infirmary. Participating units are listed at Appendix C.

Liverpool Women's Hospital, which is using a standalone Badger system, requested that their data be included in selected audit questions only (questions 1, 2, 3, 5 and 6), as the quality and quantity of the data received for other questions was not representative of data that had been entered locally.

The Leicester Neonatal Service was not able to provide a full year's worth of data for the Retinopathy of Prematurity (ROP) analysis, since ROP screening data was not attainable from their previous data system (used until June 2013).

99% (177/179) of NNUs submitted data for the full calendar period, but the remaining units (Chase Farm Hospital and Eastbourne District Hospital) were only able to provide partial data for the year due to closure.

2.4 Data completeness and quality

As in previous years, quarterly data completeness reports were produced by the NNAP Team for the whole of 2013 to provide feedback to NNUs on data completeness. These reports encouraged completion of data prior to the whole-year data download for the annual report analysis. Lists of the BadgerIDs of babies with missing NNAP data in these reports were made available to NNU on request.

Recent developments for the BadgerNet platform have included the introduction of the NNAP Dashboard. Unlike previous data quality checks, the dashboard indicates the quality of entered data, as well as completeness, and only includes babies who will be eligible for analysis in that question. The dashboard can also be interrogated to find the individual patient data behind the report, making it easier for users to identify or correct missing or inaccurate NNAP data. Currently, the NNAP dashboard covers data related to NNAP questions 1 to 5.

2.5 Data analysis

The 2013 download included 91,232 completed episodes involving exactly 80,000 babies discharged in 2013. The number of babies eligible for each audit question varies depending on the gestational age covered by the question and the episode of care under consideration. In addition, numerators may vary from figures extracted locally; for example, in the analysis of the parental consultation question, some babies born, first admitted and discharged in 2013 may not appear in the analysis because the baby had a subsequent episode which continued into 2014. By the same reasoning, there are some episodes which finished during 2012 that were used for the 2013 data analysis. NDAU conducts NNAP analyses using the age of the baby in minutes from birth, as opposed to calendar days, for reasons relating to patient anonymity. This can result in minor variations in the numerators for age critical fields, such as the timing of ROP screening – please tell us if you think this has affected your unit.

2.6 Denominator data

Perinatal denominator data are required from Trusts to enable the neonatal encephalopathy question ('What percentage of babies more than or equal to 35 weeks gestation have an encephalopathy within the first three calendar days of birth?') to be answered.

Prior to 2010, NNAP obtained this data in collaboration with the body responsible for the collection of perinatal data nationally, using a shared form. In 2011, due to a delay in transitioning to a new supplier for this work, NNAP collected this data directly from Trusts. This proved to be a time-consuming and unsatisfactory process. To date there is no satisfactory replacement process for the delivery of perinatal denominator data to NNAP. It is hoped that this may be resolved through working with MBRRACE and the information centre, but NNAP are unable to report on encephalopathy (question 9) in the 2013 data report.

2.7 Neonatal unit designations

In this report NNAP has used the descriptors from the Department of Health Toolkit to describe units as Special Care Units (SCU), Local Neonatal Units (LNU), or Neonatal Intensive Care Units (NICU). Where units change their designation we would like to hear about it.

The Department of Health (2009) Toolkit for High Quality Neonatal Services...
'redefined the names of neonatal units that make up a clinical network so that they are more meaningful and less confusing:

Special care units (SCUs) provide special care for their own local population. Depending on arrangements within their neonatal network, they may also provide some high dependency services. In addition, SCUs provide a stabilisation facility for babies who need to be transferred to a neonatal intensive care unit (NICU) for intensive or high dependency care, and they also receive transfers from other network units for continuing special care.

Local neonatal units (LNUs) provide neonatal care for their own catchment population, except for the sickest babies. They provide all categories of neonatal care, but they transfer babies who require complex or longer-term intensive care to a NICU, as they are not staffed to provide longer-term intensive care. The majority of babies over 27 weeks of gestation will usually receive their full care, including short periods of intensive care, within their LNU. Some networks have agreed variations on this policy, due to local requirements. Some LNUs provide high dependency care and short periods of intensive care for their network population. LNUs may receive transfers from other neonatal services in the network, if these fall within their agreed work pattern.

Neonatal intensive care units (NICUs) are sited alongside specialist obstetric and feto-maternal medicine services, and provide the whole range of medical neonatal care for their local population, along with additional care for babies and their families referred from the neonatal network. Many NICUs in England are co-located with neonatal surgery services and other specialised services. Medical staff in a NICU should have no clinical responsibilities outside the neonatal and maternity services.'

3. Results

Question 1

Do all babies <29 weeks gestation have their temperature taken within an hour after birth?

Standards: 98-100% of babies have their temperature taken within an hour of birth.

For temperatures taken within an hour of birth:
90% at 36.6°C to 37.4°C
10% at 36.0°C to 36.5°C

Source of Standard: NNAP Board

Results

There were **2,954** babies born at a gestational age of <29 weeks reported by **170** NNU; **46** of these babies were excluded because their temperature value was marked as being un-recordable, leaving **2,908** babies eligible for the audit question. Of these babies, **93%** had their temperature measured within the first hour of birth (Table 1.1). Babies with missing or 'unknown' temperature measurement details accounted for **2%** of data, whilst less than **1%** of eligible babies were confirmed as having no temperature measurement taken after admission. The first temperature measurement was between 36.0°C and 37.5°C for **76%** of babies who had their temperature measured within an hour of birth (Table 1.4).

Table 1.1
Babies born in England and Wales at a gestational age <29 weeks with their temperature taken within the first hour of birth, infants are assigned to their place of birth.

NNU level	Number of eligible NNU	Number of eligible babies	TIME OF TEMPERATURE MEASUREMENT (FROM BIRTH)			
			Within an hour (as % of eligible babies)	After an hour	Not taken after admission	Missing/ unknown data
Other*	-	32	27 (84%)	4	1	0
SCU	40	162	144 (89%)	9	1	8
LNU	81	801	749 (94%)	31	3	18
NICU	49	1913	1779 (93%)	89	11	34
Total	**170**	**2908**	**2699 (93%)**	**133**	**16**	**60**

NNAP, 1 January - 31 December 2013

**Babies are assigned to 'Other' if they were born at home, in transit, in an unknown location or in a NNU not contributing to NNAP. Details for these births were taken from the NNU of first admission.*

Table 1.2

Babies born in England and Wales at a gestational age <29 weeks with their temperature taken within the first hour of birth, by neonatal network of birth. Discharges during 2013.

Neonatal network of birth	Number of eligible babies	TIME OF TEMPERATURE MEASUREMENT (FROM BIRTH)			
		Within an hour (as % of eligible babies)	After an hour	Not taken after admission	Missing/ unknown data
Other*	32	27 (84%)	4	1	0
Bedfordshire and Hertfordshire	68	68 (100%)	0	0	0
Cheshire and Merseyside	107	101 (94%)	1	0	5
Eastern	133	124 (93%)	5	2	2
Greater Manchester	193	185 (96%)	5	0	3
Kent	90	80 (89%)	6	0	4
Lancashire and South Cumbria	83	75 (90%)	4	0	4
London - North Central	110	103 (94%)	4	2	1
London - North East	194	175 (90%)	15	0	4
London - North West	169	144 (85%)	19	1	5
London - South East	125	119 (95%)	4	0	2
London - South West	68	61 (90%)	3	0	4
Midlands - Central	134	128 (96%)	5	1	0
Midlands - South West	128	116 (91%)	8	0	4
North Trent	114	106 (93%)	6	0	2
Northern	141	129 (91%)	7	0	5
Peninsula - South West	55	51 (93%)	4	0	0
South Central (North)	100	97 (97%)	3	0	0
South Central (South)	148	148 (100%)	0	0	0
Staffordshire,Shropshire and Black Country Newborn Network	102	97 (95%)	2	0	3
Surrey and Sussex	128	118 (92%)	3	6	1
Trent	80	71 (89%)	4	2	3
Wales	123	112 (91%)	8	0	3
Western	116	101 (87%)	10	0	5
Yorkshire	167	163 (98%)	3	1	0
Total	**2908**	**2699 (93%)**	**133**	**16**	**60**

NNAP, 1 January - 31 December 2013

**Babies are assigned to 'Other' if they were born at home, in transit, in an unknown location or in a NNU not contributing to NNAP. Details for these births were taken from the NNU of first admission.*

Table 1.3
Comparison to temperature audit results in previous NNAP reports.

NNAP data year	Number of eligible NNU	Number of eligible babies	Percentage with temperature taken within an hour of birth
2008	130	2647	78%
2009	165	3230	63%
2010	169	3380	83%
2011	164	2786	90%
2012	169	3023	89%
2013	170	2908	93%

NNAP, 1 January - 31 December 2013

Table 1.4
Temperature values for babies born in England and Wales at a gestational age of <29 weeks who had their temperature taken within an hour of birth. Infants are assigned to their place of birth.

NNU level	Number of eligible NNU	Number of eligible babies	TEMPERATURE VALUES (°C)				
			<32.0	32.0-35.9 (as % of eligible babies)	36.0-36.5 (as % of eligible babies)	36.6-37.4 (as % of eligible babies)	≥37.5
Other*	-	27	1	15 (56%)	4 (15%)	5 (19%)	2
SCU	38	144	0	15 (10%)	38 (26%)	74 (51%)	17
LNU	81	749	0	117 (16%)	224 (30%)	336 (45%)	72
NICU	49	1779	1	187 (11%)	505 (28%)	852 (48%)	234
Total	**168**	**2699**	**2**	**334 (12%)**	**771 (29%)**	**1267 (47%)**	**325**

NNAP, 1 January - 31 December 2013

**Babies are assigned to 'Other' if they were born at home, in transit, or in an unknown location or in a NNU not contributing to NNAP. Details for these births were taken from the NNU of first admission.*

Table 1.5

Babies born at a gestational age <29 with their temperature taken within the first hour of birth.

NNU Level	Place of birth	Number of eligible babies	TIME OF TEMPERATURE MEASUREMENT (FROM BIRTH)			
			Within an hour (as % of eligible babies)	After an hour	Not taken after admission	Missing/ Unknown data
-	**Other***	32	27 (84%)	4	1	0
SCU	**Alexandra Hospital**	4	3 (75%)	0	0	1
	Bassetlaw District General Hospital Ω	2	2 (100%)	0	0	0
	Bedford Hospital Ω	5	5 (100%)	0	0	0
	Conquest Hospital Ω	3	3 (100%)	0	0	0
	Cumberland Infirmary	5	2 (40%)	1	0	2
	Darent Valley Hospital Ω	5	5 (100%)	0	0	0
	Darlington Memorial Hospital Ω	3	3 (100%)	0	0	0
	Dewsbury & District Hospital Ω	4	4 (100%)	0	0	0
	Ealing Hospital Ω	8	8 (100%)	0	0	0
	Eastbourne District General Hospital Ω	1	1 (100%)	0	0	0
	Epsom General Hospital Ω	4	4 (100%)	0	0	0
	Frimley Park Hospital Ω	9	9 (100%)	0	0	0
	Furness General Hospital	1	0 (0%)	1	0	0
	George Eliot Hospital	5	3 (60%)	1	1	0
	Good Hope Hospital Ω	3	3 (100%)	0	0	0
	Harrogate District Hospital Ω	2	2 (100%)	0	0	0
	Hereford County Hospital Ω	2	2 (100%)	0	0	0
	Hinchingbrooke Hospital Ω	2	2 (100%)	0	0	0
	James Paget Hospital	4	3 (75%)	1	0	0
	King's Mill Hospital Ω	8	8 (100%)	0	0	0
	North Manchester General Hospital	11	9 (82%)	1	0	1
	Oxford University Hospitals, Horton Hospital Ω	2	2 (100%)	0	0	0
	Pilgrim Hospital Ω	2	2 (100%)	0	0	0

NNU Level	Place of birth	Number of eligible babies	TIME OF TEMPERATURE MEASUREMENT (FROM BIRTH)			
			Within an hour (as % of eligible babies)	After an hour	Not taken after admission	Missing/ Unknown data
	Princess Royal Hospital Ω	3	3 (100%)	0	0	0
	Princess Royal University Hospital #	11	7 (64%)	2	0	2
	Queen Elizabeth Hospital, Gateshead Ω	4	4 (100%)	0	0	0
	Queen Elizabeth The Queen Mother Hospital	4	3 (75%)	0	0	1
	Royal Surrey County Hospital Ω	3	3 (100%)	0	0	0
	Scarborough General Hospital Ω	3	3 (100%)	0	0	0
	South Tyneside District Hospital Ω	1	1 (100%)	0	0	0
	Staffordshire General Hospital Ω	1	1 (100%)	0	0	0
	The Royal Free Hospital	1	0 (0%)	1	0	0
	University Hospital Of North Durham	3	2 (67%)	0	0	1
	Wansbeck General Hospital Ω	2	2 (100%)	0	0	0
	Warwick Hospital	4	3 (75%)	1	0	0
	West Cumberland Hospital Ω	2	2 (100%)	0	0	0
	West Middlesex University Hospital Ω	13	13 (100%)	0	0	0
	West Suffolk Hospital Ω	5	5 (100%)	0	0	0
	Worthing Hospital Ω	5	5 (100%)	0	0	0
	Yeovil District Hospital Ω	2	2 (100%)	0	0	0
SCU Total		**162**	**144 (89%)**	**9**	**1**	**8**
LNU	**Airedale General Hospital Ω**	7	7 (100%)	0	0	0
	Barnet Hospital	10	9 (90%)	1	0	0
	Barnsley District General Hospital Ω	7	7 (100%)	0	0	0
	Basildon Hospital Ω	8	8 (100%)	0	0	0
	Basingstoke & North Hampshire Hospital Ω	3	3 (100%)	0	0	0
	Bronglais General Hospital Ω	1	1 (100%)	0	0	0
	Broomfield Hospital Ω	4	4 (100%)	0	0	0
	Calderdale Royal Hospital Ω	13	13 (100%)	0	0	0

NNU Level	Place of birth	Number of eligible babies	TIME OF TEMPERATURE MEASUREMENT (FROM BIRTH)			
			Within an hour (as % of eligible babies)	After an hour	Not taken after admission	Missing/ Unknown data
	Chesterfield & North Derbyshire Royal Hospital Ω	6	6 (100%)	0	0	0
	City Hospital	33	32 (97%)	1	0	0
	Colchester General Hospital Ω	12	12 (100%)	0	0	0
	Countess Of Chester Hospital Ω	4	4 (100%)	0	0	0
	Croydon University Hospital Ω	17	17 (100%)	0	0	0
	Diana Princess Of Wales Hospital	5	4 (80%)	0	0	1
	Doncaster Royal Infirmary	13	11 (85%)	1	0	1
	Dorset County Hospital Ω	3	3 (100%)	0	0	0
	East Surrey Hospital Ω	5	5 (100%)	0	0	0
	Glangwili General Hospital Ω	1	1 (100%)	0	0	0
	Gloucestershire Royal Hospital #	22	18 (82%)	1	0	3
	Great Western Hospital	6	5 (83%)	0	0	1
	Hillingdon Hospital	7	6 (86%)	1	0	0
	Ipswich Hospital Ω	7	7 (100%)	0	0	0
	Kettering General Hospital Ω	10	10 (100%)	0	0	0
	Kingston Hospital	8	6 (75%)	1	0	1
	Leighton Hospital Ω	11	11 (100%)	0	0	0
	Lincoln County Hospital Ω	5	5 (100%)	0	0	0
	Lister Hospital Ω	12	12 (100%)	0	0	0
	Macclesfield District General Hospital Ω	1	1 (100%)	0	0	0
	Manor Hospital	17	16 (94%)	0	0	1
	Milton Keynes Foundation Trust Hospital	13	12 (92%)	1	0	0
	Nevill Hall Hospital	3	1 (33%)	1	0	1
	Newham General Hospital	25	23 (92%)	1	0	1
	North Middlesex University Hospital	9	6 (67%)	1	0	2
	Northampton General Hospital	15	14 (93%)	1	0	0

NNU Level	Place of birth	Number of eligible babies	TIME OF TEMPERATURE MEASUREMENT (FROM BIRTH)			
			Within an hour (as % of eligible babies)	After an hour	Not taken after admission	Missing/ Unknown data
	Northwick Park Hospital	26	25 (96%)	1	0	0
	Ormskirk District General Hospital	6	5 (83%)	0	0	1
	Peterborough City Hospital	13	11 (85%)	0	1	1
	Pinderfields General Hospital Ω	13	13 (100%)	0	0	0
	Poole Hospital NHS Foundation Trust Ω	11	11 (100%)	0	0	0
	Prince Charles Hospital Ω	3	3 (100%)	0	0	0
	Princess Alexandra Hospital Ω	8	8 (100%)	0	0	0
	Princess Of Wales Hospital Ω	2	2 (100%)	0	0	0
	Queen Elizabeth Hospital, King's Lynn Ω	5	5 (100%)	0	0	0
	Queen Elizabeth Hospital, Woolwich	11	10 (91%)	1	0	0
	Queen's Hospital, Burton On Trent Ω	7	7 (100%)	0	0	0
	Queen's Hospital, Romford	27	26 (96%)	1	0	0
	Rotherham District General Hospital Ω	10	10 (100%)	0	0	0
	Royal Albert Edward Infirmary Ω	9	9 (100%)	0	0	0
	Royal Berkshire Hospital Ω	10	10 (100%)	0	0	0
	Royal Cornwall Hospital Ω	12	12 (100%)	0	0	0
	Royal Derby Hospital Ω	20	20 (100%)	0	0	0
	Royal Devon & Exeter Hospital	14	11 (79%)	3	0	0
	Royal Glamorgan Hospital	9	8 (89%)	1	0	0
	Royal Hampshire County Hospital Ω	6	6 (100%)	0	0	0
	Royal Lancaster Infirmary	5	4 (80%)	0	0	1
	Royal Shrewsbury Hospital Ω	15	15 (100%)	0	0	0
	Royal United Hospital Ω	10	10 (100%)	0	0	0
	Russells Hall Hospital Ω	10	10 (100%)	0	0	0
	Salisbury District Hospital Ω	5	5 (100%)	0	0	0

NNU Level	Place of birth	Number of eligible babies	TIME OF TEMPERATURE MEASUREMENT (FROM BIRTH)			
			Within an hour (as % of eligible babies)	After an hour	Not taken after admission	Missing/ Unknown data
	Scunthorpe General Hospital Ω	5	5 (100%)	0	0	0
	Southend Hospital	11	10 (91%)	1	0	0
	St Helier Hospital Ω	3	3 (100%)	0	0	0
	St Mary's Hospital, IOW Ω	6	6 (100%)	0	0	0
	St Mary's Hospital, London	14	10 (71%)	4	0	0
	Stepping Hill Hospital Ω	9	9 (100%)	0	0	0
	Stoke Mandeville Hospital Ω	5	5 (100%)	0	0	0
	Tameside General Hospital Ω	8	8 (100%)	0	0	0
	Taunton & Somerset Hospital	11	9 (82%)	1	0	1
	Tunbridge Wells Hospital Ω	9	9 (100%)	0	0	0
	University Hospital Lewisham Ω	23	23 (100%)	0	0	0
	University Hospital Of South Manchester Ω	10	10 (100%)	0	0	0
	Victoria Hospital, Blackpool	11	9 (82%)	1	0	1
	Warrington Hospital Ω	3	3 (100%)	0	0	0
	Watford General Hospital Ω	12	12 (100%)	0	0	0
	Wexham Park Hospital Ω	14	14 (100%)	0	0	0
	Whipps Cross University Hospital	12	8 (67%)	4	0	0
	Whiston Hospital	7	6 (86%)	1	0	0
	Whittington Hospital	12	9 (75%)	1	1	1
	Withybush Hospital Ω	5	5 (100%)	0	0	0
	Worcestershire Royal Hospital Ω	9	9 (100%)	0	0	0
	York District Hospital	12	11 (92%)	0	1	0
LNU Total		**801**	**749 (94%)**	**31**	**3**	**18**
NICU	**Arrowe Park Hospital Ω**	11	11 (100%)	0	0	0
	Birmingham Heartlands Hospital	27	25 (93%)	2	0	0
	Birmingham Women's Hospital	50	42 (84%)	5	0	3

NNU Level	Place of birth	Number of eligible babies	TIME OF TEMPERATURE MEASUREMENT (FROM BIRTH)			
			Within an hour (as % of eligible babies)	After an hour	Not taken after admission	Missing/ Unknown data
	Bradford Royal Infirmary Ω	36	36 (100%)	0	0	0
	Chelsea & Westminster Hospital	29	24 (83%)	1	1	3
	Derriford Hospital	29	28 (97%)	1	0	0
	Glan Clwyd Hospital	12	11 (92%)	1	0	0
	Guy's & St Thomas' Hospital Ω	51	51 (100%)	0	0	0
	Homerton Hospital	75	70 (93%)	5	0	0
	Hull Royal Infirmary	30	28 (93%)	2	0	0
	James Cook University Hospital	28	25 (89%)	3	0	0
	King's College Hospital	29	28 (97%)	1	0	0
	Lancashire Women & Newborn Centre	28	27 (96%)	1	0	0
	Leeds Neonatal Service	47	46 (98%)	1	0	0
	Leicester Neonatal Service	54	52 (96%)	2	0	0
	Liverpool Women's Hospital	64	60 (94%)	0	0	4
	Luton & Dunstable Hospital Ω	39	39 (100%)	0	0	0
	Medway Maritime Hospital	37	33 (89%)	4	0	0
	New Cross Hospital	24	20 (83%)	2	0	2
	Norfolk & Norwich University Hospital	31	26 (84%)	4	1	0
	North Bristol NHS Trust (Southmead)	42	38 (90%)	4	0	0
	Nottingham City Hospital	21	17 (81%)	1	1	2
	Nottingham University Hospital (QMC)	24	19 (79%)	3	1	1
	Oxford University Hospitals, John Radcliffe Hospital	56	54 (96%)	2	0	0
	Princess Anne Hospital Ω	49	49 (100%)	0	0	0
	Queen Alexandra Hospital Ω	65	65 (100%)	0	0	0
	Queen Charlotte's Hospital	72	58 (81%)	12	0	2
	Rosie Maternity Hospital, Addenbrookes	42	41 (98%)	0	0	1
	Royal Bolton Hospital	41	36 (88%)	3	0	2

NNU Level	Place of birth	Number of eligible babies	TIME OF TEMPERATURE MEASUREMENT (FROM BIRTH)			
			Within an hour (as % of eligible babies)	After an hour	Not taken after admission	Missing/ Unknown data
	Royal Gwent Hospital	24	21 (88%)	1	0	2
	Royal Oldham Hospital Ω	49	49 (100%)	0	0	0
	Royal Preston Hospital	38	35 (92%)	1	0	2
	Royal Sussex County Hospital	51	42 (82%)	2	6	1
	Royal Victoria Infirmary Ω	44	44 (100%)	0	0	0
	Singleton Hospital	36	33 (92%)	3	0	0
	St George's Hospital	36	31 (86%)	2	0	3
	St Mary's Hospital, Manchester	56	55 (98%)	1	0	0
	St Michael's Hospital	23	19 (83%)	4	0	0
	St Peter's Hospital	48	47 (98%)	1	0	0
	Sunderland Royal Hospital Ω	21	21 (100%)	0	0	0
	The Jessop Wing, Sheffield	66	61 (92%)	5	0	0
	The Royal London Hospital	27	24 (89%)	2	0	1
	University College Hospital	87	85 (98%)	1	1	0
	University Hospital Coventry Ω	39	39 (100%)	0	0	0
	University Hospital Of North Staffordshire Ω	35	35 (100%)	0	0	0
	University Hospital Of North Tees	28	23 (82%)	3	0	2
	University Hospital Of Wales	21	20 (95%)	1	0	0
	William Harvey Hospital	35	30 (86%)	2	0	3
	Wrexham Maelor Hospital Ω	6	6 (100%)	0	0	0
NICU Total		**1913**	**1779 (93%)**	**89**	**11**	**34**
Total		**2908**	**2699 (93%)**	**133**	**16**	**60**

NNAP, 1 January - 31 December 2013

**Babies are assigned to 'Other' if they were born at home, in transit, or in an unknown location or in a NNU not contributing to NNAP. Details for these births were taken from the NNU of first admission.*

Ω indicates units with complete data and all temperatures taken within one hour.

 # Indicates units with less than 90% complete data who were deemed 'non participant' in the outlier analysis.

Table 1.6

Temperature values for babies born at a gestational age of <29 weeks who had their temperature taken within an hour of birth. Infants are assigned to their place of birth.

NNU Level	Place of birth	Number of eligible babies	TEMPERATURE VALUES (°C)				
			< 32.0	32.0 – 35.9 (as % of eligible babies)	36.0-36.5 (as % of eligible babies)	36.6-37.4 (as % of eligible babies)	≥ 37.5
-	**Other***	27	1	15 (56%)	4 (15%)	5 (19%)	2
SCU	**Alexandra Hospital**	3	0	0 (0%)	0 (0%)	2 (67%)	1
	Bassetlaw District General Hospital	2	0	0 (0%)	0 (0%)	2 (100%)	0
	Bedford Hospital	5	0	0 (0%)	3 (60%)	2 (40%)	0
	Conquest Hospital	3	0	0 (0%)	1 (33%)	2 (67%)	0
	Cumberland Infirmary	2	0	1 (50%)	1 (50%)	0 (0%)	0
	Darent Valley Hospital	5	0	1 (20%)	0 (0%)	2 (40%)	2
	Darlington Memorial Hospital	3	0	0 (0%)	2 (67%)	1 (33%)	0
	Dewsbury & District Hospital	4	0	1 (25%)	0 (0%)	3 (75%)	0
	Ealing Hospital	8	0	1 (13%)	4 (50%)	3 (38%)	0
	Eastbourne District General Hospital	1	0	1 (100%)	0 (0%)	0 (0%)	0
	Epsom General Hospital	4	0	1 (25%)	0 (0%)	3 (75%)	0
	Frimley Park Hospital	9	0	1 (11%)	1 (11%)	4 (44%)	3
	George Eliot Hospital	3	0	0 (0%)	2 (67%)	0 (0%)	1
	Good Hope Hospital	3	0	1 (33%)	0 (0%)	1 (33%)	1
	Harrogate District Hospital	2	0	0 (0%)	0 (0%)	2 (100%)	0
	Hereford County Hospital	2	0	0 (0%)	1 (50%)	0 (0%)	1
	Hinchingbrooke Hospital	2	0	0 (0%)	2 (100%)	0 (0%)	0
	James Paget Hospital	3	0	0 (0%)	0 (0%)	3 (100%)	0
	King's Mill Hospital	8	0	3 (38%)	1 (13%)	4 (50%)	0

NNU Level	Place of birth	Number of eligible babies	TEMPERATURE VALUES (°C)				
			< 32.0	32.0 – 35.9 (as % of eligible babies)	36.0-36.5 (as % of eligible babies)	36.6-37.4 (as % of eligible babies)	≥ 37.5
	North Manchester General Hospital	9	0	1 (11%)	5 (56%)	3 (33%)	0
	Oxford University Hospitals, Horton Hospital	2	0	0 (0%)	0 (0%)	2 (100%)	0
	Pilgrim Hospital	2	0	0 (0%)	1 (50%)	1 (50%)	0
	Princess Royal Hospital	3	0	0 (0%)	2 (67%)	1 (33%)	0
	Princess Royal University Hospital	7	0	1 (14%)	3 (43%)	3 (43%)	0
	Queen Elizabeth Hospital, Gateshead	4	0	0 (0%)	0 (0%)	3 (75%)	1
	Queen Elizabeth The Queen Mother Hospital	3	0	0 (0%)	1 (33%)	2 (67%)	0
	Royal Surrey County Hospital	3	0	0 (0%)	0 (0%)	2 (67%)	1
	Scarborough General Hospital	3	0	0 (0%)	1 (33%)	2 (67%)	0
	South Tyneside District Hospital	1	0	0 (0%)	1 (100%)	0 (0%)	0
	Staffordshire General Hospital	1	0	0 (0%)	0 (0%)	1 (100%)	0
	University Hospital Of North Durham	2	0	0 (0%)	0 (0%)	1 (50%)	1
	Wansbeck General Hospital	2	0	0 (0%)	0 (0%)	1 (50%)	1
	Warwick Hospital	3	0	0 (0%)	1 (33%)	1 (33%)	1
	West Cumberland Hospital	2	0	0 (0%)	0 (0%)	1 (50%)	1
	West Middlesex University Hospital	13	0	0 (0%)	4 (31%)	8 (62%)	1
	West Suffolk Hospital	5	0	1 (20%)	0 (0%)	4 (80%)	0
	Worthing Hospital	5	0	1 (20%)	1 (20%)	3 (60%)	0
	Yeovil District Hospital	2	0	0 (0%)	0 (0%)	1 (50%)	1
SCU Total		**160**	**0**	**18 (11%)**	**43 (27%)**	**81 (51%)**	**18**
LNU	**Airedale General Hospital**	7	0	1 (14%)	3 (43%)	3 (43%)	0
	Barnet Hospital	9	0	1 (11%)	5 (56%)	3 (33%)	0
	Barnsley District General Hospital	7	0	0 (0%)	3 (43%)	3 (43%)	1
	Basildon Hospital	8	0	1 (13%)	3 (38%)	4 (50%)	0
	Basingstoke & North Hampshire Hospital	3	0	1 (33%)	1 (33%)	0 (0%)	1

NNU Level	Place of birth	Number of eligible babies	TEMPERATURE VALUES (°C)				
			< 32.0	32.0 – 35.9 (as % of eligible babies)	36.0-36.5 (as % of eligible babies)	36.6-37.4 (as % of eligible babies)	≥ 37.5
	Bronglais General Hospital	1	0	0 (0%)	1 (100%)	0 (0%)	0
	Broomfield Hospital	4	0	0 (0%)	1 (25%)	3 (75%)	0
	Calderdale Royal Hospital	13	0	2 (15%)	3 (23%)	7 (54%)	1
	Chesterfield & North Derbyshire Royal Hospital	6	0	0 (0%)	2 (33%)	4 (67%)	0
	City Hospital	32	0	3 (9%)	5 (16%)	11 (34%)	13
	Colchester General Hospital	12	0	0 (0%)	7 (58%)	4 (33%)	1
	Countess Of Chester Hospital	4	0	0 (0%)	2 (50%)	2 (50%)	0
	Croydon University Hospital	17	0	7 (41%)	4 (24%)	6 (35%)	0
	Diana Princess Of Wales Hospital	4	0	0 (0%)	1 (25%)	2 (50%)	1
	Doncaster Royal Infirmary	11	0	2 (18%)	3 (27%)	6 (55%)	0
	Dorset County Hospital	3	0	0 (0%)	0 (0%)	2 (67%)	1
	East Surrey Hospital	5	0	1 (20%)	1 (20%)	3 (60%)	0
	Glangwili General Hospital	1	0	0 (0%)	1 (100%)	0 (0%)	0
	Gloucestershire Royal Hospital	18	0	0 (0%)	1 (6%)	14 (78%)	3
	Great Western Hospital	5	0	1 (20%)	1 (20%)	3 (60%)	0
	Hillingdon Hospital	6	0	0 (0%)	2 (33%)	3 (50%)	1
	Ipswich Hospital	7	0	1 (14%)	3 (43%)	3 (43%)	0
	Kettering General Hospital	10	0	1 (10%)	2 (20%)	6 (60%)	1
	Kingston Hospital	6	0	1 (17%)	3 (50%)	2 (33%)	0
	Leighton Hospital	11	0	1 (9%)	5 (45%)	2 (18%)	3
	Lincoln County Hospital	5	0	1 (20%)	0 (0%)	2 (40%)	2
	Lister Hospital	12	0	1 (8%)	2 (17%)	4 (33%)	5
	Macclesfield District General Hospital	1	0	0 (0%)	0 (0%)	1 (100%)	0

NNU Level	Place of birth	Number of eligible babies	TEMPERATURE VALUES (°C)				
			< 32.0	32.0 – 35.9 (as % of eligible babies)	36.0-36.5 (as % of eligible babies)	36.6-37.4 (as % of eligible babies)	≥ 37.5
	Manor Hospital	16	0	8 (50%)	4 (25%)	4 (25%)	0
	Milton Keynes Foundation Trust Hospital	12	0	2 (17%)	3 (25%)	5 (42%)	2
	Nevill Hall Hospital	1	0	0 (0%)	1 (100%)	0 (0%)	0
	Newham General Hospital	23	0	5 (22%)	8 (35%)	9 (39%)	1
	North Middlesex University Hospital	6	0	0 (0%)	1 (17%)	4 (67%)	1
	Northampton General Hospital	14	0	1 (7%)	7 (50%)	6 (43%)	0
	Northwick Park Hospital	25	0	4 (16%)	6 (24%)	15 (60%)	0
	Ormskirk District General Hospital	5	0	0 (0%)	2 (40%)	3 (60%)	0
	Peterborough City Hospital	11	0	0 (0%)	5 (45%)	6 (55%)	0
	Pinderfields General Hospital	13	0	7 (54%)	1 (8%)	5 (38%)	0
	Poole Hospital NHS Foundation Trust	11	0	1 (9%)	2 (18%)	4 (36%)	4
	Prince Charles Hospital	3	0	1 (33%)	0 (0%)	2 (67%)	0
	Princess Alexandra Hospital	8	0	0 (0%)	1 (13%)	7 (88%)	0
	Princess Of Wales Hospital	2	0	1 (50%)	1 (50%)	0 (0%)	0
	Queen Elizabeth Hospital, King's Lynn	5	0	0 (0%)	0 (0%)	4 (80%)	1
	Queen Elizabeth Hospital, Woolwich	10	0	4 (40%)	2 (20%)	4 (40%)	0
	Queen's Hospital, Burton On Trent	7	0	1 (14%)	2 (29%)	2 (29%)	2
	Queen's Hospital, Romford	26	0	8 (31%)	14 (54%)	4 (15%)	0
	Rotherham District General Hospital	10	0	0 (0%)	3 (30%)	6 (60%)	1
	Royal Albert Edward Infirmary	9	0	3 (33%)	4 (44%)	2 (22%)	0
	Royal Berkshire Hospital	10	0	3 (30%)	2 (20%)	4 (40%)	1
	Royal Cornwall Hospital	12	0	3 (25%)	3 (25%)	6 (50%)	0
	Royal Derby Hospital	20	0	1 (5%)	7 (35%)	11 (55%)	1
	Royal Devon & Exeter Hospital	11	0	1 (9%)	4 (36%)	5 (45%)	1
	Royal Glamorgan Hospital	8	0	1 (13%)	6 (75%)	1 (13%)	0
	Royal Hampshire County Hospital	6	0	0 (0%)	4 (67%)	2 (33%)	0

NNU Level	Place of birth	Number of eligible babies	TEMPERATURE VALUES (°C)				
			< 32.0	32.0 – 35.9 (as % of eligible babies)	36.0-36.5 (as % of eligible babies)	36.6-37.4 (as % of eligible babies)	≥ 37.5
	Royal Lancaster Infirmary	4	0	1 (25%)	0 (0%)	3 (75%)	0
	Royal Shrewsbury Hospital	15	0	2 (13%)	7 (47%)	6 (40%)	0
	Royal United Hospital	10	0	0 (0%)	1 (10%)	7 (70%)	2
	Russells Hall Hospital	10	0	0 (0%)	2 (20%)	5 (50%)	3
	Salisbury District Hospital	5	0	0 (0%)	2 (40%)	2 (40%)	1
	Scunthorpe General Hospital	5	0	1 (20%)	3 (60%)	0 (0%)	1
	Southend Hospital	10	0	1 (10%)	3 (30%)	5 (50%)	1
	St Helier Hospital	3	0	0 (0%)	2 (67%)	1 (33%)	0
	St Mary's Hospital, IOW	6	0	1 (17%)	2 (33%)	3 (50%)	0
	St Mary's Hospital, London	10	0	2 (20%)	4 (40%)	2 (20%)	2
	Stepping Hill Hospital	9	0	3 (33%)	3 (33%)	2 (22%)	1
	Stoke Mandeville Hospital	5	0	0 (0%)	0 (0%)	4 (80%)	1
	Tameside General Hospital	8	0	1 (13%)	3 (38%)	4 (50%)	0
	Taunton & Somerset Hospital	9	0	1 (11%)	2 (22%)	6 (67%)	0
	Tunbridge Wells Hospital	9	0	2 (22%)	2 (22%)	5 (56%)	0
	University Hospital Lewisham	23	0	3 (13%)	8 (35%)	12 (52%)	0
	University Hospital Of South Manchester	10	0	4 (40%)	1 (10%)	5 (50%)	0
	Victoria Hospital, Blackpool	9	0	1 (11%)	3 (33%)	5 (56%)	0
	Warrington Hospital	3	0	3 (100%)	0 (0%)	0 (0%)	0
	Watford General Hospital	12	0	1 (8%)	2 (17%)	8 (67%)	1
	Wexham Park Hospital	14	0	0 (0%)	3 (21%)	6 (43%)	5
	Whipps Cross University Hospital	8	0	1 (13%)	5 (63%)	0 (0%)	2
	Whiston Hospital	6	0	2 (33%)	1 (17%)	3 (50%)	0
	Whittington Hospital	9	0	0 (0%)	2 (22%)	6 (67%)	1

NNU Level	Place of birth	Number of eligible babies	TEMPERATURE VALUES (°C)				
			< 32.0	32.0 – 35.9 (as % of eligible babies)	36.0-36.5 (as % of eligible babies)	36.6-37.4 (as % of eligible babies)	≥ 37.5
	Withybush Hospital	5	0	1 (20%)	1 (20%)	2 (40%)	1
	Worcestershire Royal Hospital	9	0	4 (44%)	2 (22%)	2 (22%)	1
	York District Hospital	11	0	1 (9%)	2 (18%)	8 (73%)	0
LNU Total		**731**	**0**	**114 (16%)**	**217 (30%)**	**329 (45%)**	**71**
NICU	**Arrowe Park Hospital**	11	0	1 (9%)	3 (27%)	7 (64%)	0
	Birmingham Heartlands Hospital	25	0	2 (8%)	5 (20%)	9 (36%)	9
	Birmingham Women's Hospital	42	0	2 (5%)	17 (40%)	17 (40%)	6
	Bradford Royal Infirmary	36	0	3 (8%)	8 (22%)	16 (44%)	9
	Chelsea & Westminster Hospital	24	0	8 (33%)	8 (33%)	8 (33%)	0
	Derriford Hospital	28	0	3 (11%)	3 (11%)	11 (39%)	11
	Glan Clwyd Hospital	11	0	0 (0%)	5 (45%)	6 (55%)	0
	Guy's & St Thomas' Hospital	51	0	2 (4%)	17 (33%)	32 (63%)	0
	Homerton Hospital	70	0	2 (3%)	26 (37%)	33 (47%)	9
	Hull Royal Infirmary	28	0	0 (0%)	4 (14%)	22 (79%)	2
	James Cook University Hospital	25	0	3 (12%)	8 (32%)	12 (48%)	2
	King's College Hospital	28	0	5 (18%)	15 (54%)	5 (18%)	3
	Lancashire Women & Newborn Centre	27	0	5 (19%)	14 (52%)	5 (19%)	3
	Leeds Neonatal Service	46	0	3 (7%)	13 (28%)	22 (48%)	8
	Leicester Neonatal Service	52	0	10 (19%)	21 (40%)	19 (37%)	2
	Liverpool Women's Hospital	60	0	0 (0%)	12 (20%)	29 (48%)	19
	Luton & Dunstable Hospital	39	0	2 (5%)	14 (36%)	20 (51%)	3
	Medway Maritime Hospital	33	0	8 (24%)	12 (36%)	10 (30%)	3
	New Cross Hospital	20	0	2 (10%)	5 (25%)	10 (50%)	3
	Norfolk & Norwich University Hospital	26	0	9 (35%)	4 (15%)	11 (42%)	2
	North Bristol NHS Trust (Southmead)	38	0	6 (16%)	10 (26%)	15 (39%)	7

NNU Level	Place of birth	Number of eligible babies	TEMPERATURE VALUES (°C)				
			< 32.0	32.0 – 35.9 (as % of eligible babies)	36.0-36.5 (as % of eligible babies)	36.6-37.4 (as % of eligible babies)	≥ 37.5
	Nottingham City Hospital	17	0	3 (18%)	8 (47%)	6 (35%)	0
	Nottingham University Hospital (QMC)	19	0	2 (11%)	7 (37%)	9 (47%)	1
	Oxford University Hospitals, John Radcliffe Hospital	54	0	3 (6%)	15 (28%)	34 (63%)	2
	Princess Anne Hospital	49	0	1 (2%)	11 (22%)	31 (63%)	6
	Queen Alexandra Hospital	65	0	3 (5%)	18 (28%)	38 (58%)	6
	Queen Charlotte's Hospital	58	0	16 (28%)	11 (19%)	23 (40%)	8
	Rosie Maternity Hospital, Addenbrookes	41	0	1 (2%)	7 (17%)	24 (59%)	9
	Royal Bolton Hospital	36	0	2 (6%)	6 (17%)	20 (56%)	8
	Royal Gwent Hospital	21	0	0 (0%)	3 (14%)	16 (76%)	2
	Royal Oldham Hospital	49	0	3 (6%)	14 (29%)	20 (41%)	12
	Royal Preston Hospital	35	0	1 (3%)	8 (23%)	18 (51%)	8
	Royal Sussex County Hospital	42	0	10 (24%)	10 (24%)	20 (48%)	2
	Royal Victoria Infirmary	44	0	6 (14%)	22 (50%)	15 (34%)	1
	Singleton Hospital	33	0	2 (6%)	13 (39%)	18 (55%)	0
	St George's Hospital	31	0	1 (3%)	10 (32%)	19 (61%)	1
	St Mary's Hospital, Manchester	55	0	4 (7%)	10 (18%)	30 (55%)	11
	St Michael's Hospital	19	0	1 (5%)	7 (37%)	8 (42%)	3
	St Peter's Hospital	47	0	1 (2%)	11 (23%)	27 (57%)	8
	Sunderland Royal Hospital	21	1	2 (10%)	5 (24%)	10 (48%)	3
	The Jessop Wing, Sheffield	61	0	3 (5%)	10 (16%)	35 (57%)	13
	The Royal London Hospital	24	0	1 (4%)	8 (33%)	15 (63%)	0
	University College Hospital	85	0	14 (16%)	25 (29%)	37 (44%)	9
	University Hospital Coventry	39	0	11 (28%)	10 (26%)	12 (31%)	6

NNU Level	Place of birth	Number of eligible babies	TEMPERATURE VALUES (°C)				
			< 32.0	32.0 – 35.9 (as % of eligible babies)	36.0-36.5 (as % of eligible babies)	36.6-37.4 (as % of eligible babies)	≥ 37.5
	University Hospital Of North Staffordshire	35	0	9 (26%)	6 (17%)	15 (43%)	5
	University Hospital Of North Tees	23	0	5 (22%)	4 (17%)	9 (39%)	5
	University Hospital Of Wales	20	0	5 (25%)	11 (55%)	4 (20%)	0
	William Harvey Hospital	30	0	0 (0%)	10 (33%)	17 (57%)	3
	Wrexham Maelor Hospital	6	0	1 (17%)	1 (17%)	3 (50%)	1
NICU Total		**1725**	**1**	**179 (10%)**	**489 (28%)**	**826 (48%)**	**230**
Total		**2699**	**2**	**334 (12%)**	**771 (29%)**	**1267 (47%)**	**325**

**Babies are assigned to 'Other' if they were born at home, in transit, in an unknown location or in a non NNAP unit.*

Outlier analysis

1. Participating NNU for outlier analysis

We identified 2,876 babies in 170 NNU for inclusion in the temperature outlier analysis. We excluded from outlier analysis NNU where more than 10% of babies had no temperature records. We also excluded NNU with fewer than 10 babies born under 29 weeks' gestation, and NNU that did not submit a full year of data. The 'non participant' units are identified in table 1.5. This left 88 participating NNU and 2,434 babies included in the outlier analysis, most of the exclusions being due to many NNU having fewer than 10 eligible babies. There were two NNU with more than 10 babies (33 babies in total) that did not provide sufficient data to participate in the outlier analysis.

In the participating NNU, 95% of babies with temperature records had their temperature taken within one hour of birth.

2. Results of outlier analysis

The main outlier analysis was based on complete data in participating NNU. We used a staged methodology to identify NNU where the rate of temperature measurement within one hour of birth was unusually low. As in previous NNAP reports, we chose the thresholds 0.025 and 0.001 to flag NNU with unusually low values. The lower thresholds demarcate the rates where the probabilities are 0.025 and 0.001 of seeing a NNU fall below these levels when it is truly consistent with temperature taking in the population of usual NNU. We also adjusted the thresholds for multiple testing. We present the results of the outlier analysis using a funnel plot (Figure 1).

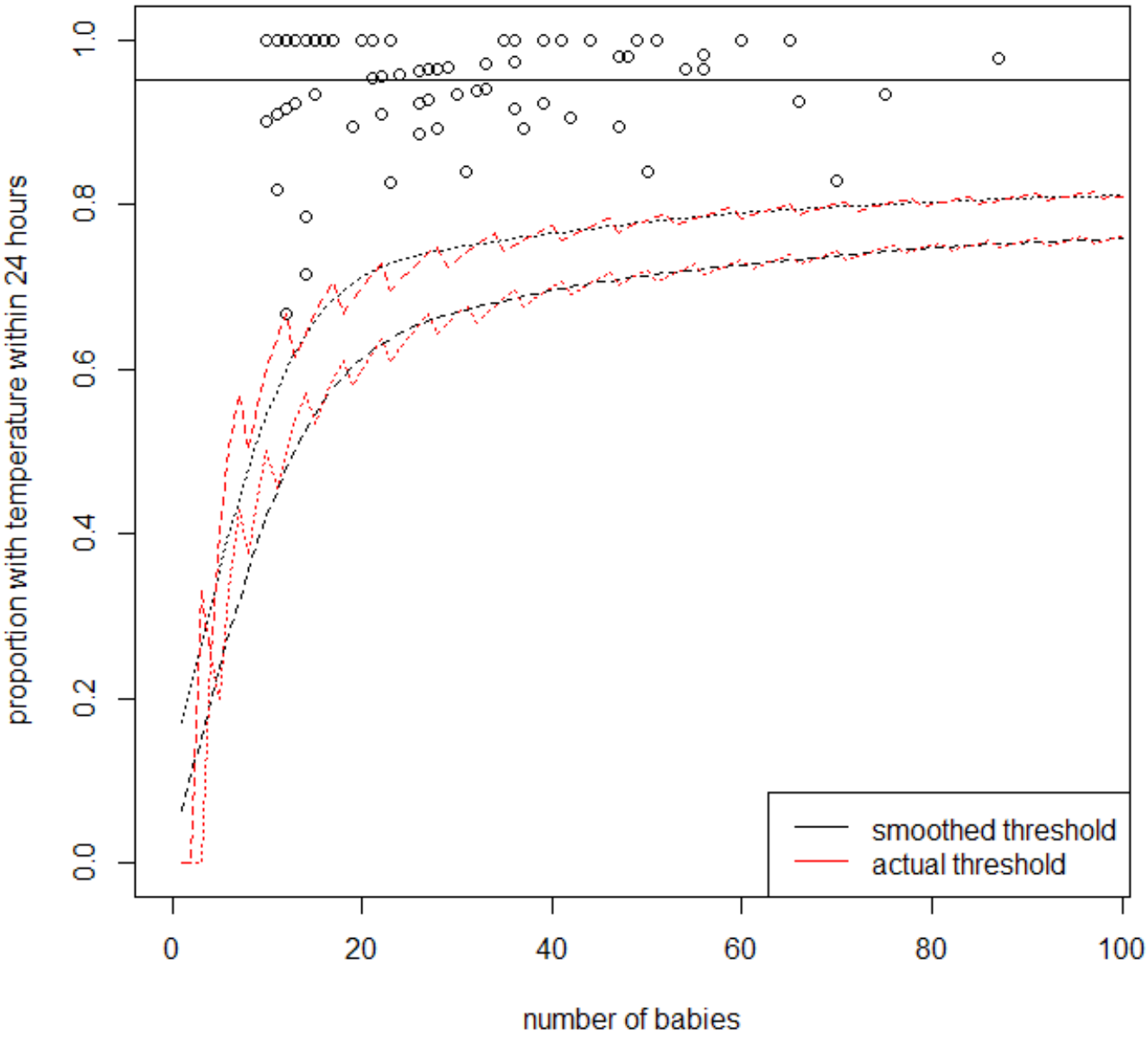
NNU below threshold: We identified one NNU for further investigation. This NNU was on the 0.025 threshold. This unit was contacted about potential outlier status, and had an opportunity to review the accuracy of its data prior to the report's publication. Further details on the data outlier analysis process can be found on page 170 of this report.

Sensitivity analysis for NNU above threshold with missing temperature records: We also checked if units close to but above the 0.025 threshold that had missing values would fall below the threshold in the worst case scenario that all their missing values indicated no temperature was taken or temperature was taken late. We found no NNU that would fall below the threshold in the worst case scenario.

Good performance: We identified NNU where all babies had temperature records and all were within one hour of admission. There were 31 NNU with >= 10 babies, and 60 NNU with <10 babies, that took the temperature of all their babies on time and recorded it. These are identified in table 1.5.

Figure 1
Funnel plot showing proportion of babies <29 weeks gestation at birth, with temperature records, whose first admission temperature was taken within one hour of birth.

This funnel plot shows the 0.025 and 0.001 thresholds to identify NNU with possibly unusual performance. The lines representing the thresholds have been smoothed, and the single NNU on the threshold appears to be above the smoothed line (black) but is on the actual limit (red). Each dot represents one NNU.



Question 2

Are all mothers who deliver babies between 24^{+0} and 34^{+6} weeks gestation given any dose of antenatal steroids?

Standard: 85% of mothers receive any dose of antenatal steroids.

Source of Standard: NNAP Board

Results

There were **16,992** eligible mothers identified from data submitted for **19,482** babies by **176** neonatal units. Records for **77** babies were excluded from analysis because their data lacked sufficient detail to identify their mother, or were inconsistent. At least one dose of antenatal steroids was administered to **83%** of mothers who delivered babies between 24^{+0} and 34^{+6} weeks gestation (Table 2.1). Antenatal steroids were not administered in **16%** of cases and steroid data were missing or unknown for **1%** of babies.

Table 2.1
Mothers in England and Wales who delivered their babies between 24^{+0} and 34^{+6} weeks and received **any** dose of antenatal steroids; mothers are assigned to the place of birth.

NNU level	Number of eligible NNU	Number of eligible mothers	Steroids given (as % of all eligible mothers)	Steroids not given	Missing/ unknown data
Other*	-	233	83 (36%)	145	5
SCU	45	2116	1673 (79%)	398	45
LNU	82	7100	6009 (85%)	1006	85
NICU	49	7543	6377 (85%)	1085	81
Total	**176**	**16992**	**14142 (83%)**	**2634**	**216**

NNAP, 1 January - 31 December 2013

**Responses are assigned to 'Other' if the mother delivered at home, in transit, in an unknown location or in a non NNAP unit. Steroid details for these births were taken from the NNU of first admission.*

Table 2.2

Mothers in England and Wales who delivered their babies between 24^{+0} and 34^{+6} weeks and received **any** dose of antenatal steroids by neonatal network of birth.

Neonatal network of birth	Number of eligible mothers	Steroids given (as % of all eligible mothers)	Steroids not given	Missing/ unknown data
Other*	233	83 (36%)	145	5
Bedfordshire and Hertfordshire	437	385 (88%)	51	1
Cheshire and Merseyside	718	643 (90%)	71	4
Eastern	929	794 (85%)	127	8
Greater Manchester	935	773 (83%)	147	15
Kent	514	460 (89%)	51	3
Lancashire and South Cumbria	444	377 (85%)	56	11
London - North Central	422	378 (90%)	44	0
London - North East	989	841 (85%)	129	19
London - North West	788	699 (89%)	86	3
London - South East	549	484 (88%)	60	5
London - South West	491	406 (83%)	76	9
Midlands - Central	749	635 (85%)	109	5
Midlands - South West	908	669 (74%)	194	45
North Trent	690	577 (84%)	108	5
Northern	819	702 (86%)	101	16
Peninsula - South West	414	323 (78%)	85	6
South Central (North)	639	545 (85%)	90	4
South Central (South)	749	648 (87%)	100	1
Staffordshire,Shropshire and Black Country Newborn Network	640	536 (84%)	101	3
Surrey and Sussex	744	640 (86%)	102	2
Trent	567	419 (74%)	139	9
Wales	771	632 (82%)	121	18
Western	789	629 (80%)	143	17
Yorkshire	1064	864 (81%)	198	2
Total	**16992**	**14142 (83%)**	**2634**	**216**

NNAP, 1 January - 31 December 2013

**Responses are assigned to 'Other' if the mother delivered at home, in transit, in an unknown location or in a non NNAP unit. Steroid details for these births were taken from the NNU of first admission.*

Table 2.3
Comparison to antenatal steroid audit results in previous NNAP reports.

NNAP reporting year	Number of eligible NNU	Number of eligible mothers	Percentage with any antenatal steroids given
2008	**129**	**9066**	**63%**
2009	**167**	**16031**	**70%**
2010	**173**	**16895**	**75%**
2011	**164**	**15716**	**76%**
2012	**173**	**16576**	**80%**
2013	**176**	**16992**	**83%**

NNAP, 1 January - 31 December 2013

Table 2.4
Mothers in England and Wales who delivered their babies between 24^{+0} and 34^{+6} weeks and received **any** dose of antenatal steroids by place of birth.

NNU level	Place of birth	Number of eligible mothers	Steroids given (as % of all eligible babies)	Steroids not given	Missing/ unknown data
-	**Other***	233	83 (36%)	145	5
SCU	**Alexandra Hospital**	37	27 (73%)	7	3
	Bassetlaw District General Hospital	32	29 (91%)	3	0
	Bedford Hospital	58	51 (88%)	7	0
	Chase Farm Hospital	16	15 (94%)	1	0
	Conquest Hospital	63	46 (73%)	16	1
	Cumberland Infirmary	39	35 (90%)	4	0
	Darent Valley Hospital	102	91 (89%)	11	0
	Darlington Memorial Hospital	62	50 (81%)	11	1
	Dewsbury and District Hospital	51	42 (82%)	9	0
	Ealing Hospital	68	63 (93%)	5	0
	Eastbourne District General Hospital	18	11 (61%)	7	0
	Epsom General Hospital	29	17 (59%)	12	0
	Frimley Park Hospital	115	94 (82%)	21	0
	Furness General Hospital	13	10 (77%)	2	1
	George Eliot Hospital	47	42 (89%)	4	1
	Good Hope Hospital	62	46 (74%)	10	6
	Harrogate District Hospital	38	28 (74%)	10	0
	Hereford County Hospital	43	30 (70%)	11	2

NNU level	Place of birth	Number of eligible mothers	Steroids given (as % of all eligible babies)	Steroids not given	Missing/ unknown data
	Hinchingbrooke Hospital	45	34 (76%)	10	1
	James Paget Hospital	56	47 (84%)	8	1
	King George Hospital	1	0 (0%)	0	1
	King's Mill Hospital	72	39 (54%)	32	1
	North Devon District Hospital	31	26 (84%)	5	0
	North Manchester General Hospital	91	67 (74%)	21	3
	Oxford University Hospitals, Horton Hospital	16	16 (100%)	0	0
	Pilgrim Hospital	42	23 (55%)	19	0
	Princess Royal Hospital	23	17 (74%)	6	0
	Princess Royal University Hospital	77	64 (83%)	9	4
	Queen Elizabeth Hospital, Gateshead	50	36 (72%)	14	0
	Queen Elizabeth The Queen Mother Hospital	55	45 (82%)	8	2
	Royal Surrey County Hospital	67	49 (73%)	17	1
	Scarborough General Hospital	35	24 (69%)	11	0
	South Tyneside District Hospital	15	13 (87%)	2	0
	Staffordshire General Hospital	24	22 (92%)	2	0
	The Royal Free Hospital	35	28 (80%)	7	0
	Torbay Hospital	53	43 (81%)	9	1
	University Hospital Of North Durham	64	54 (84%)	9	1
	Wansbeck General Hospital	45	36 (80%)	9	0
	Warwick Hospital	45	44 (98%)	1	0
	West Cumberland Hospital	30	17 (57%)	6	7
	West Middlesex University Hospital	99	81 (82%)	16	2
	West Suffolk Hospital	46	40 (87%)	3	3
	Worthing Hospital	56	45 (80%)	11	0
	Yeovil District Hospital	20	13 (65%)	5	2
	Ysbyty Gwynedd	30	23 (77%)	7	0
SCU total		**2116**	**1673 (79%)**	**398**	**45**
LNU	**Airedale General Hospital**	58	52 (90%)	6	0
	Barnet Hospital	98	91 (93%)	7	0
	Barnsley District General Hospital	67	48 (72%)	19	0
	Basildon Hospital	99	79 (80%)	16	4
	Basingstoke and North Hampshire Hospital	54	48 (89%)	6	0

NNU level	Place of birth	Number of eligible mothers	Steroids given (as % of all eligible babies)	Steroids not given	Missing/ unknown data
	Bronglais General Hospital	7	4 (57%)	1	2
	Broomfield Hospital	70	66 (94%)	4	0
	Calderdale Royal Hospital	154	129 (84%)	25	0
	Chesterfield and North Derbyshire Royal Hospital	67	57 (85%)	10	0
	City Hospital	168	125 (74%)	41	2
	Colchester General Hospital	85	82 (96%)	2	1
	Countess Of Chester Hospital	57	53 (93%)	4	0
	Croydon University Hospital	95	80 (84%)	15	0
	Diana Princess Of Wales Hospital	64	61 (95%)	3	0
	Doncaster Royal Infirmary	106	86 (81%)	20	0
	Dorset County Hospital	47	39 (83%)	8	0
	East Surrey Hospital	95	94 (99%)	1	0
	Glangwili General Hospital	33	24 (73%)	8	1
	Gloucestershire Royal Hospital	155	141 (91%)	11	3
	Great Western Hospital	115	88 (77%)	20	7
	Hillingdon Hospital	113	95 (84%)	18	0
	Ipswich Hospital	62	52 (84%)	10	0
	Kettering General Hospital	83	60 (72%)	23	0
	Kingston Hospital	94	83 (88%)	10	1
	Leighton Hospital	63	55 (87%)	8	0
	Lincoln County Hospital	81	68 (84%)	13	0
	Lister Hospital	123	108 (88%)	14	1
	Macclesfield District General Hospital	33	31 (94%)	2	0
	Manor Hospital	130	107 (82%)	22	1
	Milton Keynes Foundation Trust Hospital	79	62 (78%)	14	3
	Nevill Hall Hospital	44	38 (86%)	6	0
	Newham General Hospital	137	120 (88%)	17	0
	North Middlesex University Hospital	91	80 (88%)	10	1
	Northampton General Hospital	106	89 (84%)	17	0
	Northwick Park Hospital	126	115 (91%)	11	0
	Ormskirk District General Hospital	50	44 (88%)	6	0
	Peterborough City Hospital	100	81 (81%)	17	2
	Pinderfields General Hospital	93	85 (91%)	8	0

NNU level	Place of birth	Number of eligible mothers	Steroids given (as % of all eligible babies)	Steroids not given	Missing/ unknown data
	Poole Hospital NHS Foundation Trust	95	75 (79%)	20	0
	Prince Charles Hospital	47	40 (85%)	6	1
	Princess Alexandra Hospital	95	84 (88%)	11	0
	Princess Of Wales Hospital	38	30 (79%)	3	5
	Queen Elizabeth Hospital, King's Lynn	63	59 (94%)	4	0
	Queen Elizabeth Hospital, Woolwich	80	71 (89%)	9	0
	Queen's Hospital, Burton On Trent	63	58 (92%)	5	0
	Queen's Hospital, Romford	159	136 (86%)	13	10
	Rotherham District General Hospital	62	51 (82%)	11	0
	Royal Albert Edward Infirmary	94	74 (79%)	19	1
	Royal Berkshire Hospital	103	84 (82%)	18	1
	Royal Cornwall Hospital	89	65 (73%)	23	1
	Royal Derby Hospital	130	100 (77%)	29	1
	Royal Devon and Exeter Hospital	104	79 (76%)	24	1
	Royal Glamorgan Hospital	74	69 (93%)	5	0
	Royal Hampshire County Hospital	81	68 (84%)	13	0
	Royal Lancaster Infirmary	52	34 (65%)	9	9
	Royal Shrewsbury Hospital	122	94 (77%)	27	1
	Royal United Hospital	92	77 (84%)	13	2
	Russells Hall Hospital	103	73 (71%)	30	0
	Salisbury District Hospital	53	48 (91%)	5	0
	Scunthorpe General Hospital	51	42 (82%)	8	1
	Southend Hospital	88	73 (83%)	15	0
	St Helier Hospital	116	107 (92%)	9	0
	St Mary's Hospital, IOW	28	21 (75%)	6	1
	St Mary's Hospital, London	96	88 (92%)	7	1
	St Richard's Hospital	73	69 (95%)	4	0
	Stepping Hill Hospital	68	58 (85%)	10	0
	Stoke Mandeville Hospital	103	89 (86%)	14	0
	Tameside General Hospital	63	52 (83%)	11	0
	Taunton and Somerset Hospital	108	85 (79%)	22	1
	Tunbridge Wells Hospital	104	92 (88%)	11	1
	University Hospital Lewisham	96	86 (90%)	10	0

NNU level	Place of birth	Number of eligible mothers	Steroids given (as % of all eligible babies)	Steroids not given	Missing/ unknown data
	University Hospital Of South Manchester	71	65 (92%)	6	0
	Victoria Hospital, Blackpool	69	64 (93%)	4	1
	Warrington Hospital	75	66 (88%)	6	3
	Watford General Hospital	115	100 (87%)	15	0
	Wexham Park Hospital	117	101 (86%)	16	0
	Whipps Cross University Hospital	99	82 (83%)	16	1
	Whiston Hospital	91	79 (87%)	12	0
	Whittington Hospital	106	99 (93%)	7	0
	Withybush Hospital	29	19 (66%)	5	5
	Worcestershire Royal Hospital	166	132 (80%)	26	8
	York District Hospital	67	51 (76%)	16	0
LNU total		**7100**	**6009 (85%)**	**1006**	**85**
NICU	**Arrowe Park Hospital**	100	88 (88%)	11	1
	Birmingham Heartlands Hospital	199	143 (72%)	48	8
	Birmingham Women's Hospital	233	166 (71%)	51	16
	Bradford Royal Infirmary	159	143 (90%)	16	0
	Chelsea and Westminster Hospital	134	110 (82%)	24	0
	Derriford Hospital	137	110 (80%)	24	3
	Glan Clwyd Hospital	75	61 (81%)	11	3
	Guy's and St Thomas' Hospital	153	138 (90%)	15	0
	Homerton Hospital	208	179 (86%)	29	0
	Hull Royal Infirmary	138	100 (72%)	36	2
	James Cook University Hospital	136	120 (88%)	13	3
	King's College Hospital	143	125 (87%)	17	1
	Lancashire Women and Newborn Centre	184	157 (85%)	27	0
	Leeds Neonatal Service	271	210 (77%)	61	0
	Leicester Neonatal Service	246	208 (85%)	34	4
	Liverpool Women's Hospital	249	227 (91%)	22	0
	Luton and Dunstable Hospital	141	126 (89%)	15	0
	Medway Maritime Hospital	140	127 (91%)	13	0
	New Cross Hospital	127	120 (94%)	6	1
	Norfolk and Norwich University Hospital	163	137 (84%)	26	0
	North Bristol NHS Trust (Southmead)	153	126 (82%)	27	0

NNU level	Place of birth	Number of eligible mothers	Steroids given (as % of all eligible babies)	Steroids not given	Missing/ unknown data
	Nottingham City Hospital	122	92 (75%)	27	3
	Nottingham University Hospital (QMC)	120	97 (81%)	19	4
	Oxford University Hospitals, John Radcliffe Hospital	221	193 (87%)	28	0
	Princess Anne Hospital	128	105 (82%)	23	0
	Queen Alexandra Hospital	190	175 (92%)	15	0
	Queen Charlotte's Hospital	152	147 (97%)	5	0
	Rosie Maternity Hospital, Addenbrookes	144	112 (78%)	32	0
	Royal Bolton Hospital	155	135 (87%)	16	4
	Royal Gwent Hospital	110	82 (75%)	28	0
	Royal Oldham Hospital	161	136 (84%)	24	1
	Royal Preston Hospital	126	112 (89%)	14	0
	Royal Sussex County Hospital	150	140 (93%)	10	0
	Royal Victoria Infirmary	177	160 (90%)	14	3
	Singleton Hospital	108	99 (92%)	9	0
	St George's Hospital	157	119 (76%)	30	8
	St Mary's Hospital, Manchester	232	186 (80%)	40	6
	St Michael's Hospital	146	99 (68%)	45	2
	St Peter's Hospital	157	144 (92%)	13	0
	Sunderland Royal Hospital	111	103 (93%)	8	0
	The Jessop Wing, Sheffield	241	203 (84%)	34	4
	The Royal London Hospital	107	92 (86%)	13	2
	University College Hospital	167	145 (87%)	22	0
	University Hospital Coventry	159	134 (84%)	25	0
	University Hospital Of North Staffordshire	134	120 (90%)	14	0
	University Hospital Of North Tees	90	78 (87%)	11	1
	University Hospital Of Wales	110	98 (89%)	12	0
	William Harvey Hospital	113	105 (93%)	8	0
	Wrexham Maelor Hospital	66	45 (68%)	20	1
NICU total		**7543**	**6377 (85%)**	**1085**	**81**
Total		**16992**	**14142 (83%)**	**2634**	**216**

NNAP, 1 January - 31 December 2013

**Responses are assigned to 'Other' if the mother delivered at home, in transit, in an unknown location or in a non NNAP unit. Steroid details for these births were taken from the NNU of first admission.*

Question 3

Do all babies <1,501g or a gestational age of <32 weeks at birth undergo the first Retinopathy of Prematurity (ROP) screening in accordance with the current guideline recommendations?

Standards: 100% of eligible babies should receive ROP screening within the time windows for first screening recommended in the guidelines:

- If the infant's gestational age at birth is <27 weeks, the first screening should be between 30^{+0} and 30^{+6} weeks corrected gestation inclusive.
- If the infant's gestational age at birth is ≤27 and <32 weeks, ROP screening should be at or after four weeks, and before five weeks of age.
- If the infant's gestational age is ≤32 weeks but with a birth weight <1,501g, ROP screening should be at or after four weeks, and before five weeks of age.
- All babies <32 weeks gestational age or birth weight <1,501g should have their first ROP screening examination prior to discharge.

Source of Standard: National standard (RCPCH, RCOphth, BAPM and Bliss, *Guideline for the Screening and Treatment of Retinopathy of Prematurity*, 2008*)*

Note: In interpreting the national standards for this NNAP analysis, the Project Board has decided that a baby will be seen as having had ROP screening 'on time' if:

- A baby who was discharged before the ROP screening window opened had their first screening conducted prior to discharge

OR

- A ROP screen takes place within the ROP screening window, before or after discharge

The NNAP Project Board has also agreed to allow an extra week either side of the ROP screening window as follows:

Gestational age at birth (completed weeks)	ROP SCREENING WINDOWS	
	National Guideline ROP screening window	NNAP ROP screening window
<27	30^{+0} to 30^{+6} weeks corrected gestational age inclusive	29^{+0} to 31^{+6} weeks corrected gestational age inclusive
≥27	4 to 5 weeks from birth (21-35 days)	3 to 6 weeks from birth (21-42 days)

Results

There were **8,704** babies born with a birth weight <1501g or with a gestational age at birth <32 weeks in NNAP contributing NNU. Of these babies, **16** were excluded because they did not have a recorded episode of care in a NNU until after the closure of the ROP screening window. A further **75** babies were excluded because they were transferred to non-neonatal units before, or during, the ROP screening window. Finally, **613** babies were excluded because they died before the closure of the screening window and had not been screened. This left **8,000** babies eligible for ROP screening from **175** NNU.

Including post-discharge screenings, **94%** of eligible babies had at least one screening for ROP recorded, while **87%** of babies were screened 'on time' in accordance with current NNAP criteria, including the **9%** of babies who were screened 'on time' after neonatal discharge. Of the remaining babies, **5%** were first screened after the closure of the screening window, and **1%** were only screened before the screening window opened. There were no screening data available for 6% of eligible babies. Babies with gestations of 32 weeks or above, but with birth weights <1,501g had poor data completeness.

Distinguishing between lack of data entry and lack of screening remains a problem. NNAP would welcome the views of audit users on how this issue should be handled.

Table 3.1

ROP screening for babies born <1501g or gestation at birth <32 weeks by NNU level in England and Wales.

NNU Level	Number of eligible NNU	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (% of eligible babies)
				During care	After discharge	Total (as % of all eligible babies)	During care	After discharge	Total (as % of all eligible babies)	During care	After discharge	Total (as % of all eligible babies)	
SCU	45	943	825 (87%)	656	94	750 (80%)	18	1	19 (2%)	38	18	56 (6%)	118 (13%)
LNU	81	3301	3093 (94%)	2532	367	2899 (88%)	27	4	31 (1%)	84	79	163 (5%)	208 (6%)
NICU	49	3756	3579 (95%)	3070	276	3346 (89%)	20	0	20 (1%)	140	73	213 (6%)	177 (5%)
Total	175	8000	7497 (94%)	6258	737	6995 (87%)	65	5	70 (1%)	262	170	432 (5%)	503 (6%)

NNAP, 1 January - 31 December 2013

Table 3.2

ROP screening for babies born <1501g or gestational at birth <32 weeks by neonatal network

Neonatal Network	Eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
			During care	After discharge	Total (as % of all eligible babies)	During care	After discharge	Total (as % of all eligible babies)	During care	After discharge	Total (as % of all eligible babies)	
Bedfordshire and Hertfordshire	217	212 (98%)	177	29	206 (95%)	1	0	1 (0%)	3	2	5 (2%)	5 (2%)
Cheshire & Merseyside	315	301 (96%)	228	50	278 (88%)	0	0	0 (0%)	12	11	23 (7%)	14 (4%)
Eastern	438	407 (93%)	335	38	373 (85%)	2	0	2 (0%)	21	11	32 (7%)	31 (7%)
Greater Manchester	460	454 (99%)	378	54	432 (94%)	2	0	2 (0%)	12	8	20 (4%)	6 (1%)
Kent	236	223 (94%)	189	18	207 (88%)	6	0	6 (3%)	9	1	10 (4%)	13 (6%)
Lancashire and South Cumbria	199	188 (94%)	163	9	172 (86%)	2	0	2 (1%)	8	6	14 (7%)	11 (6%)
London - North Central	212	194 (92%)	182	4	186 (88%)	1	0	1 (0%)	7	0	7 (3%)	18 (8%)
London - North East	575	533 (93%)	419	54	473 (82%)	8	1	9 (2%)	35	16	51 (9%)	42 (7%)
London - North West	415	374 (90%)	308	49	357 (86%)	0	1	1 (0%)	8	8	16 (4%)	41 (10%)
London - South East	323	318 (98%)	264	23	287 (89%)	6	0	6 (2%)	16	9	25 (8%)	5 (2%)
London - South West	264	254 (96%)	198	38	236 (89%)	4	0	4 (2%)	6	8	14 (5%)	10 (4%)
Midlands - Central	291	261 (90%)	231	19	250 (86%)	0	0	0 (0%)	8	3	11 (4%)	30 (10%)
Midlands - South West	425	391 (92%)	318	37	355 (84%)	1	1	2 (0%)	22	12	34 (8%)	34 (8%)

Neonatal Network	Eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
			During care	After discharge	Total (as % of all eligible babies)	During care	After discharge	Total (as % of all eligible babies)	During care	After discharge	Total (as % of all eligible babies)	
North Trent	317	303 (96%)	271	28	299 (94%)	0	0	0 (0%)	2	2	4 (1%)	14 (4%)
Northern	398	373 (94%)	308	38	346 (87%)	6	0	6 (2%)	16	5	21 (5%)	25 (6%)
Peninsula - South West	188	172 (91%)	145	21	166 (88%)	0	0	0 (0%)	4	2	6 (3%)	16 (9%)
South Central (North)	283	275 (97%)	231	30	261 (92%)	1	0	1 (0%)	3	10	13 (5%)	8 (3%)
South Central (South)	382	375 (98%)	309	37	346 (91%)	3	0	3 (1%)	8	18	26 (7%)	7 (2%)
Staffordshire, Shropshire and Black Country Newborn Network	272	255 (94%)	235	16	251 (92%)	1	0	1 (0%)	0	3	3 (1%)	17 (6%)
Surrey and Sussex	319	296 (93%)	251	30	281 (88%)	5	0	5 (2%)	5	5	10 (3%)	23 (7%)
Trent	244	202 (83%)	157	15	172 (70%)	0	2	2 (1%)	19	9	28 (11%)	42 (17%)
Wales	383	333 (87%)	275	25	300 (78%)	5	0	5 (1%)	19	9	28 (7%)	50 (13%)
Western	352	320 (91%)	264	19	283 (80%)	10	0	10 (3%)	18	9	27 (8%)	32 (9%)
Yorkshire	492	483 (98%)	422	56	478 (97%)	1	0	1 (0%)	1	3	4 (1%)	9 (2%)
Total	**8000**	**7497 (94%)**	**6258**	**737**	**6995 (87%)**	**65**	**5**	**70 (1%)**	**262**	**170**	**432 (5%)**	**503 (6%)**

NNAP, 1 January - 31 December 2013

Table 3.3

Comparison to ROP audit results in previous NNAP audits.

NNAP reporting year	Number of eligible NNU	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	ROP SCREENING KNOWN		
				On time (as % of eligible babies)	Early (as % of eligible babies)	Late* (as % of eligible babies)
2008	148	3414	1936 (57%)	-	-	-
2009	167	7913	5336 (67%)	2098 (27%)	1859 (23%)	1379 (17%)
2010	171	8235	5853 (71%)	4777 (58%)	308 (4%)	768 (9%)
2011	164	7887	6460 (82%)	5310 (67%)	233 (3%)	917 (13%)
2012	173	7996	6312 (79%)	4842 (60%)	118 (2%)	1352 (17%)
2013	175	8000	7497 (94%)	6258 (78%)	65 (1%)	1174 (15%)

NNAP, 1 January - 31 December 2013

**For the purpose of comparison with previous years, all babies screened after discharge in 2012 and 2013 data are categorised as 'Late'. Therefore the number of babies screened on time in 2013 in this table is lower than the figure shown in Table 3.2.*

Table 3.4

ROP screening for babies born <1,501g or gestation at birth <32 weeks by NNU in England and Wales.

NNU Level	NNU name	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
				During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	
SCU	Alexandra Hospital Ω	12	12 (100%)	6	6	12 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Bassetlaw District General Hospital #	10	6 (60%)	6	0	6 (60%)	0	0	0 (0%)	0	0	0 (0%)	4 (40%)
	Bedford Hospital	18	18 (100%)	14	3	17 (94%)	1	0	1 (6%)	0	0	0 (0%)	0 (0%)
	Chase Farm Hospital	14	12 (86%)	8	2	10 (71%)	1	0	1 (7%)	1	0	1 (7%)	2 (14%)
	Conquest Hospital	20	18 (90%)	14	0	14 (70%)	4	0	4 (20%)	0	0	0 (0%)	2 (10%)
	Cumberland Infirmary #	15	13 (87%)	12	0	12 (80%)	0	0	0 (0%)	0	1	1 (7%)	2 (13%)
	Darent Valley Hospital	51	51 (100%)	44	3	47 (92%)	1	0	1 (2%)	3	0	3 (6%)	0 (0%)
	Darlington Memorial Hospital	22	21 (95%)	17	3	20 (91%)	0	0	0 (0%)	0	1	1 (5%)	1 (5%)
	Dewsbury & District Hospital Ω	27	27 (100%)	25	2	27 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Ealing Hospital #	36	22 (61%)	21	0	21 (58%)	0	0	0 (0%)	1	0	1 (3%)	14 (39%)
	Eastbourne District General Hospital	6	3 (50%)	3	0	3 (50%)	0	0	0 (0%)	0	0	0 (0%)	3 (50%)
	Epsom General Hospital	8	8 (100%)	5	1	6 (75%)	0	0	0 (0%)	0	2	2 (25%)	0 (0%)
	Frimley Park Hospital	44	44 (100%)	30	13	43 (98%)	0	0	0 (0%)	1	0	1 (2%)	0 (0%)

NNU Level	NNU name	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
				During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	
	Furness General Hospital	6	3 (50%)	2	0	2 (33%)	0	0	0 (0%)	1	0	1 (17%)	3 (50%)
	George Eliot Hospital #	23	20 (87%)	18	1	19 (83%)	0	0	0 (0%)	1	0	1 (4%)	3 (13%)
	Good Hope Hospital Ω	26	26 (100%)	24	2	26 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Harrogate District Hospital Ω	14	14 (100%)	14	0	14 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Hereford County Hospital #	18	16 (89%)	14	0	14 (78%)	0	0	0 (0%)	1	1	2 (11%)	2 (11%)
	Hinchingbrooke Hospital #	21	8 (38%)	8	0	8 (38%)	0	0	0 (0%)	0	0	0 (0%)	13 (62%)
	James Paget Hospital #	21	17 (81%)	15	0	15 (71%)	1	0	1 (5%)	1	0	1 (5%)	4 (19%)
	King George Hospital	51	47 (92%)	32	5	37 (73%)	1	1	2 (4%)	7	1	8 (16%)	4 (8%)
	King's Mill Hospital	32	25 (78%)	22	0	22 (69%)	0	0	0 (0%)	3	0	3 (9%)	7 (22%)
	North Devon District Hospital	12	12 (100%)	8	3	11 (92%)	0	0	0 (0%)	0	1	1 (8%)	0 (0%)
	North Manchester General Hospital	48	48 (100%)	38	6	44 (92%)	1	0	1 (2%)	2	1	3 (6%)	0 (0%)
	Oxford University Hospitals, Horton Hospital Ω	15	15 (100%)	12	3	15 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Pilgrim Hospital	8	8 (100%)	3	3	6 (75%)	0	0	0 (0%)	2	0	2 (25%)	0 (0%)
	Princess Royal Hospital	20	19 (95%)	16	1	17 (85%)	0	0	0 (0%)	1	1	2 (10%)	1 (5%)

NNU Level	NNU name	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
				During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	
	Princess Royal University Hospital	33	33 (100%)	23	2	25 (76%)	1	0	1 (3%)	6	1	7 (21%)	0 (0%)
	Queen Elizabeth Hospital, Gateshead	20	18 (90%)	15	1	16 (80%)	0	0	0 (0%)	2	0	2 (10%)	2 (10%)
	Queen Elizabeth The Queen Mother Hospital #	14	9 (64%)	7	0	7 (50%)	2	0	2 (14%)	0	0	0 (0%)	5 (36%)
	Royal Surrey County Hospital #	29	15 (52%)	15	0	15 (52%)	0	0	0 (0%)	0	0	0 (0%)	14 (48%)
	Scarborough General Hospital	7	7 (100%)	6	0	6 (86%)	0	0	0 (0%)	1	0	1 (14%)	0 (0%)
	South Tyneside District Hospital	7	6 (86%)	3	0	3 (43%)	2	0	2 (29%)	1	0	1 (14%)	1 (14%)
	Staffordshire General Hospital Ω	12	12 (100%)	5	7	12 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	The Royal Free Hospital	17	16 (94%)	14	2	16 (94%)	0	0	0 (0%)	0	0	0 (0%)	1 (6%)
	Torbay Hospital Ω	27	27 (100%)	22	5	27 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	University Hospital Of North Durham	25	24 (96%)	20	2	22 (88%)	0	0	0 (0%)	0	2	2 (8%)	1 (4%)
	Wansbeck General Hospital #	18	16 (89%)	11	5	16 (89%)	0	0	0 (0%)	0	0	0 (0%)	2 (11%)
	Warwick Hospital	10	10 (100%)	7	2	9 (90%)	0	0	0 (0%)	0	1	1 (10%)	0 (0%)

NNU Level	NNU name	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
				During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	
	West Cumberland Hospital	10	9 (90%)	9	0	9 (90%)	0	0	0 (0%)	0	0	0 (0%)	1 (10%)
	West Middlesex University Hospital #	43	22 (51%)	18	1	19 (44%)	0	0	0 (0%)	2	1	3 (7%)	21 (49%)
	West Suffolk Hospital	29	28 (97%)	20	5	25 (86%)	0	0	0 (0%)	0	3	3 (10%)	1 (3%)
	Worthing Hospital Ω	21	21 (100%)	20	1	21 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Yeovil District Hospital	10	10 (100%)	3	3	6 (60%)	3	0	3 (30%)	1	0	1 (10%)	0 (0%)
	Ysbyty Gwynedd #	13	9 (69%)	7	1	8 (62%)	0	0	0 (0%)	0	1	1 (8%)	4 (31%)
SCU total		943	825 (87%)	656	94	750 (80%)	18	1	19 (2%)	38	18	56 (6%)	118 (13%)
LNU	**Airedale General Hospital** Ω	23	23 (100%)	18	5	23 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Barnet Hospital #	53	45 (85%)	45	0	45 (85%)	0	0	0 (0%)	0	0	0 (0%)	8 (15%)
	Barnsley District General Hospital Ω	24	24 (100%)	21	3	24 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Basildon Hospital	45	42 (93%)	33	8	41 (91%)	0	0	0 (0%)	1	0	1 (2%)	3 (7%)
	Basingstoke & North Hampshire Hospital Ω	20	20 (100%)	15	5	20 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Broomfield Hospital	37	37 (100%)	34	0	34 (92%)	1	0	1 (3%)	2	0	2 (5%)	0 (0%)

NNU Level	NNU name	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
				During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	
	Calderdale Royal Hospital	58	58 (100%)	48	9	57 (98%)	0	0	0 (0%)	0	1	1 (2%)	0 (0%)
	Chesterfield & North Derbyshire Royal Hospital Ω	29	29 (100%)	25	4	29 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	City Hospital	99	97 (98%)	88	5	93 (94%)	1	1	2 (2%)	0	2	2 (2%)	2 (2%)
	Colchester General Hospital	31	30 (97%)	24	4	28 (90%)	0	0	0 (0%)	0	2	2 (6%)	1 (3%)
	Countess Of Chester Hospital	17	16 (94%)	13	3	16 (94%)	0	0	0 (0%)	0	0	0 (0%)	1 (6%)
	Croydon University Hospital	64	64 (100%)	56	4	60 (94%)	2	0	2 (3%)	1	1	2 (3%)	0 (0%)
	Diana Princess Of Wales Hospital	38	35 (92%)	30	5	35 (92%)	0	0	0 (0%)	0	0	0 (0%)	3 (8%)
	Doncaster Royal Infirmary Ω	57	57 (100%)	51	6	57 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Dorset County Hospital	20	20 (100%)	16	3	19 (95%)	0	0	0 (0%)	0	1	1 (5%)	0 (0%)
	East Surrey Hospital	32	32 (100%)	23	7	30 (94%)	0	0	0 (0%)	0	2	2 (6%)	0 (0%)
	Glangwili General Hospital #	15	11 (73%)	9	2	11 (73%)	0	0	0 (0%)	0	0	0 (0%)	4 (27%)
	Gloucestershire Royal Hospital	67	67 (100%)	65	0	65 (97%)	2	0	2 (3%)	0	0	0 (0%)	0 (0%)
	Great Western Hospital #	45	15 (33%)	13	0	13 (29%)	1	0	1 (2%)	1	0	1 (2%)	30 (67%)
	Hillingdon Hospital	46	45 (98%)	32	8	40 (87%)	0	1	1 (2%)	2	2	4 (9%)	1 (2%)

NNU Level	NNU name	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
				During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	
	Ipswich Hospital #	35	27 (77%)	21	1	22 (63%)	0	0	0 (0%)	5	0	5 (14%)	8 (23%)
	Kettering General Hospital	35	34 (97%)	27	7	34 (97%)	0	0	0 (0%)	0	0	0 (0%)	1 (3%)
	Kingston Hospital	48	43 (90%)	32	5	37 (77%)	1	0	1 (2%)	2	3	5 (10%)	5 (10%)
	Leighton Hospital	35	35 (100%)	30	4	34 (97%)	0	0	0 (0%)	0	1	1 (3%)	0 (0%)
	Lincoln County Hospital	39	39 (100%)	26	8	34 (87%)	0	0	0 (0%)	2	3	5 (13%)	0 (0%)
	Lister Hospital	64	60 (94%)	38	19	57 (89%)	0	0	0 (0%)	1	2	3 (5%)	4 (6%)
	Macclesfield District General Hospital Ω	12	12 (100%)	9	3	12 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Manor Hospital #	49	38 (78%)	34	3	37 (76%)	0	0	0 (0%)	0	1	1 (2%)	11 (22%)
	Milton Keynes Foundation Trust Hospital	43	40 (93%)	37	3	40 (93%)	0	0	0 (0%)	0	0	0 (0%)	3 (7%)
	Nevill Hall Hospital #	31	25 (81%)	17	5	22 (71%)	0	0	0 (0%)	0	3	3 (10%)	6 (19%)
	Newham General Hospital	85	85 (100%)	69	9	78 (92%)	1	0	1 (1%)	1	5	6 (7%)	0 (0%)
	North Middlesex University Hospital #	43	20 (47%)	20	0	20 (47%)	0	0	0 (0%)	0	0	0 (0%)	23 (53%)
	Northampton General Hospital #	44	36 (82%)	25	6	31 (70%)	0	0	0 (0%)	4	1	5 (11%)	8 (18%)

NNU Level	NNU name	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
				During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	
	Northwick Park Hospital	76	75 (99%)	57	17	74 (97%)	0	0	0 (0%)	1	0	1 (1%)	1 (1%)
	Ormskirk District General Hospital #	21	16 (76%)	9	3	12 (57%)	0	0	0 (0%)	2	2	4 (19%)	5 (24%)
	Peterborough City Hospital	50	50 (100%)	41	5	46 (92%)	0	0	0 (0%)	4	0	4 (8%)	0 (0%)
	Pinderfields General Hospital	46	45 (98%)	38	7	45 (98%)	0	0	0 (0%)	0	0	0 (0%)	1 (2%)
	Poole Hospital NHS Foundation Trust Ω	49	49 (100%)	41	8	49 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Prince Charles Hospital	25	23 (92%)	23	0	23 (92%)	0	0	0 (0%)	0	0	0 (0%)	2 (8%)
	Princess Alexandra Hospital Ω	27	27 (100%)	24	3	27 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Princess Of Wales Hospital	25	23 (92%)	18	0	18 (72%)	3	0	3 (12%)	2	0	2 (8%)	2 (8%)
	Queen Elizabeth Hospital, King's Lynn #	27	24 (89%)	19	3	22 (81%)	0	0	0 (0%)	0	2	2 (7%)	3 (11%)
	Queen Elizabeth Hospital, Woolwich	61	59 (97%)	50	0	50 (82%)	5	0	5 (8%)	4	0	4 (7%)	2 (3%)
	Queen's Hospital, Burton On Trent Ω	37	37 (100%)	35	2	37 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Queen's Hospital, Romford	38	36 (95%)	17	0	17 (45%)	0	0	0 (0%)	19	0	19 (50%)	2 (5%)

NNU Level	NNU name	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
				During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	
	Rotherham District General Hospital	36	35 (97%)	32	3	35 (97%)	0	0	0 (0%)	0	0	0 (0%)	1 (3%)
	Royal Albert Edward Infirmary	34	34 (100%)	25	7	32 (94%)	0	0	0 (0%)	0	2	2 (6%)	0 (0%)
	Royal Berkshire Hospital	54	53 (98%)	37	14	51 (94%)	0	0	0 (0%)	0	2	2 (4%)	1 (2%)
	Royal Cornwall Hospital #	34	26 (76%)	22	1	23 (68%)	0	0	0 (0%)	2	1	3 (9%)	8 (24%)
	Royal Derby Hospital	58	52 (90%)	41	4	45 (78%)	0	2	2 (3%)	0	5	5 (9%)	6 (10%)
	Royal Devon & Exeter Hospital	53	52 (98%)	50	1	51 (96%)	0	0	0 (0%)	1	0	1 (2%)	1 (2%)
	Royal Glamorgan Hospital	31	30 (97%)	23	4	27 (87%)	0	0	0 (0%)	3	0	3 (10%)	1 (3%)
	Royal Hampshire County Hospital	29	29 (100%)	22	6	28 (97%)	1	0	1 (3%)	0	0	0 (0%)	0 (0%)
	Royal Lancaster Infirmary	16	15 (94%)	11	0	11 (69%)	0	0	0 (0%)	4	0	4 (25%)	1 (6%)
	Royal Shrewsbury Hospital	39	39 (100%)	38	0	38 (97%)	1	0	1 (3%)	0	0	0 (0%)	0 (0%)
	Royal United Hospital	47	46 (98%)	33	9	42 (89%)	1	0	1 (2%)	2	1	3 (6%)	1 (2%)
	Russells Hall Hospital	47	45 (96%)	38	5	43 (91%)	0	0	0 (0%)	0	2	2 (4%)	2 (4%)
	Salisbury District Hospital	25	24 (96%)	24	0	24 (96%)	0	0	0 (0%)	0	0	0 (0%)	1 (4%)
	Scunthorpe General Hospital #	18	13 (72%)	13	0	13 (72%)	0	0	0 (0%)	0	0	0 (0%)	5 (28%)

NNU Level	NNU name	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
				During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	
	Southend Hospital	36	36 (100%)	22	10	32 (89%)	0	0	0 (0%)	0	4	4 (11%)	0 (0%)
	St Helier Hospital	49	49 (100%)	30	16	46 (94%)	0	0	0 (0%)	2	1	3 (6%)	0 (0%)
	St Mary's Hospital, IOW Ω	5	5 (100%)	3	2	5 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	St Mary's Hospital, London	63	62 (98%)	47	13	60 (95%)	0	0	0 (0%)	0	2	2 (3%)	1 (2%)
	St Richard's Hospital	30	30 (100%)	19	5	24 (80%)	0	0	0 (0%)	1	5	6 (20%)	0 (0%)
	Stepping Hill Hospital	36	35 (97%)	24	8	32 (89%)	0	0	0 (0%)	1	2	3 (8%)	1 (3%)
	Stoke Mandeville Hospital	45	45 (100%)	42	1	43 (96%)	1	0	1 (2%)	0	1	1 (2%)	0 (0%)
	Tameside General Hospital	35	35 (100%)	28	5	33 (94%)	0	0	0 (0%)	0	2	2 (6%)	0 (0%)
	Taunton & Somerset Hospital	38	37 (97%)	32	0	32 (84%)	3	0	3 (8%)	2	0	2 (5%)	1 (3%)
	Tunbridge Wells Hospital	43	41 (95%)	31	8	39 (91%)	1	0	1 (2%)	0	1	1 (2%)	2 (5%)
	University Hospital Lewisham	68	66 (97%)	56	9	65 (96%)	0	0	0 (0%)	0	1	1 (1%)	2 (3%)
	University Hospital Of South Manchester	39	39 (100%)	36	2	38 (97%)	0	0	0 (0%)	0	1	1 (3%)	0 (0%)
	Victoria Hospital, Blackpool #	26	23 (88%)	19	3	22 (85%)	0	0	0 (0%)	0	1	1 (4%)	3 (12%)
	Warrington Hospital	36	33 (92%)	21	4	25 (69%)	0	0	0 (0%)	4	4	8 (22%)	3 (8%)

NNU Level	NNU name	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
				During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	
	Watford General Hospital	56	55 (98%)	51	3	54 (96%)	0	0	0 (0%)	1	0	1 (2%)	1 (2%)
	Wexham Park Hospital	51	49 (96%)	43	3	46 (90%)	0	0	0 (0%)	0	3	3 (6%)	2 (4%)
	Whipps Cross University Hospital	65	62 (95%)	45	8	53 (82%)	2	0	2 (3%)	3	4	7 (11%)	3 (5%)
	Whiston Hospital	30	30 (100%)	25	4	29 (97%)	0	0	0 (0%)	1	0	1 (3%)	0 (0%)
	Whittington Hospital #	51	44 (86%)	42	0	42 (82%)	0	0	0 (0%)	2	0	2 (4%)	7 (14%)
	Withybush Hospital #	15	11 (73%)	9	1	10 (67%)	0	0	0 (0%)	1	0	1 (7%)	4 (27%)
	Worcestershire Royal Hospital #	65	56 (86%)	50	6	56 (86%)	0	0	0 (0%)	0	0	0 (0%)	9 (14%)
	York District Hospital	33	32 (97%)	32	0	32 (97%)	0	0	0 (0%)	0	0	0 (0%)	1 (3%)
LNU total		3301	3093 (94%)	2532	367	2899 (88%)	27	4	31 (1%)	84	79	163 (5%)	208 (6%)
NICU	**Arrowe Park Hospital Ω**	46	46 (100%)	32	14	46 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Birmingham Heartlands Hospital	89	87 (98%)	82	3	85 (96%)	0	0	0 (0%)	2	0	2 (2%)	2 (2%)
	Birmingham Women's Hospital #	116	97 (84%)	54	15	69 (59%)	0	0	0 (0%)	19	9	28 (24%)	19 (16%)
	Bradford Royal Infirmary Ω	80	80 (100%)	72	8	80 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)

NNU Level	NNU name	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
				During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	
	Chelsea & Westminster Hospital	88	85 (97%)	78	4	82 (93%)	0	0	0 (0%)	0	3	3 (3%)	3 (3%)
	Derriford Hospital #	62	55 (89%)	43	11	54 (87%)	0	0	0 (0%)	1	0	1 (2%)	7 (11%)
	Glan Clwyd Hospital #	29	25 (86%)	22	1	23 (79%)	1	0	1 (3%)	1	0	1 (3%)	4 (14%)
	Guy's & St Thomas' Hospital	84	83 (99%)	69	7	76 (90%)	0	0	0 (0%)	5	2	7 (8%)	1 (1%)
	Homerton Hospital	119	116 (97%)	102	10	112 (94%)	2	0	2 (2%)	2	0	2 (2%)	3 (3%)
	Hull Royal Infirmary	80	79 (99%)	62	17	79 (99%)	0	0	0 (0%)	0	0	0 (0%)	1 (1%)
	James Cook University Hospital	78	77 (99%)	62	9	71 (91%)	2	0	2 (3%)	4	0	4 (5%)	1 (1%)
	King's College Hospital	77	77 (100%)	66	5	71 (92%)	0	0	0 (0%)	1	5	6 (8%)	0 (0%)
	Lancashire Women & Newborn Centre	90	88 (98%)	78	6	84 (93%)	2	0	2 (2%)	1	1	2 (2%)	2 (2%)
	Leeds Neonatal Service	124	118 (95%)	107	8	115 (93%)	1	0	1 (1%)	0	2	2 (2%)	6 (5%)
	Leicester Neonatal Service	47	37 (79%)	36	0	36 (77%)	0	0	0 (0%)	1	0	1 (2%)	10 (21%)
	Liverpool Women's Hospital	118	113 (96%)	89	15	104 (88%)	0	0	0 (0%)	5	4	9 (8%)	5 (4%)
	Luton & Dunstable Hospital	79	79 (100%)	74	4	78 (99%)	0	0	0 (0%)	1	0	1 (1%)	0 (0%)

NNU Level	NNU name	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
				During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	
	Medway Maritime Hospital	72	72 (100%)	64	7	71 (99%)	1	0	1 (1%)	0	0	0 (0%)	0 (0%)
	New Cross Hospital Ω	57	57 (100%)	56	1	57 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	Norfolk & Norwich University Hospital	76	75 (99%)	59	14	73 (96%)	0	0	0 (0%)	1	1	2 (3%)	1 (1%)
	North Bristol NHS Trust (Southmead)	76	76 (100%)	55	6	61 (80%)	0	0	0 (0%)	10	5	15 (20%)	0 (0%)
	Nottingham City Hospital #	74	50 (68%)	46	0	46 (62%)	0	0	0 (0%)	3	1	4 (5%)	24 (32%)
	Nottingham University Hospital (QMC) #	33	28 (85%)	19	0	19 (58%)	0	0	0 (0%)	9	0	9 (27%)	5 (15%)
	Oxford University Hospitals, John Radcliffe Hospital	75	73 (97%)	60	6	66 (88%)	0	0	0 (0%)	3	4	7 (9%)	2 (3%)
	Princess Anne Hospital	94	92 (98%)	86	2	88 (94%)	1	0	1 (1%)	3	0	3 (3%)	2 (2%)
	Queen Alexandra Hospital	110	106 (96%)	83	6	89 (81%)	1	0	1 (1%)	4	12	16 (15%)	4 (4%)
	Queen Charlotte's Hospital	63	63 (100%)	55	6	61 (97%)	0	0	0 (0%)	2	0	2 (3%)	0 (0%)
	Rosie Maternity Hospital, Addenbrookes	84	84 (100%)	70	3	73 (87%)	0	0	0 (0%)	8	3	11 (13%)	0 (0%)
	Royal Bolton Hospital	81	81 (100%)	66	12	78 (96%)	0	0	0 (0%)	3	0	3 (4%)	0 (0%)
	Royal Gwent Hospital	60	58 (97%)	45	8	53 (88%)	0	0	0 (0%)	3	2	5 (8%)	2 (3%)

NNU Level	NNU name	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
				During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	
	Royal Oldham Hospital	86	83 (97%)	68	9	77 (90%)	0	0	0 (0%)	6	0	6 (7%)	3 (3%)
	Royal Preston Hospital	61	59 (97%)	53	0	53 (87%)	0	0	0 (0%)	2	4	6 (10%)	2 (3%)
	Royal Sussex County Hospital	81	78 (96%)	73	2	75 (93%)	1	0	1 (1%)	1	1	2 (2%)	3 (4%)
	Royal Victoria Infirmary	97	93 (96%)	75	13	88 (91%)	1	0	1 (1%)	3	1	4 (4%)	4 (4%)
	Singleton Hospital	55	54 (98%)	51	1	52 (95%)	0	0	0 (0%)	0	2	2 (4%)	1 (2%)
	St George's Hospital	95	90 (95%)	75	12	87 (92%)	1	0	1 (1%)	1	1	2 (2%)	5 (5%)
	St Mary's Hospital, Manchester	101	99 (98%)	93	5	98 (97%)	1	0	1 (1%)	0	0	0 (0%)	2 (2%)
	St Michael's Hospital	69	69 (100%)	63	1	64 (93%)	0	0	0 (0%)	2	3	5 (7%)	0 (0%)
	St Peter's Hospital	66	66 (100%)	57	6	63 (95%)	0	0	0 (0%)	2	1	3 (5%)	0 (0%)
	Sunderland Royal Hospital Ω	58	58 (100%)	53	5	58 (100%)	0	0	0 (0%)	0	0	0 (0%)	0 (0%)
	The Jessop Wing, Sheffield	105	104 (99%)	93	7	100 (95%)	0	0	0 (0%)	2	2	4 (4%)	1 (1%)
	The Royal London Hospital	93	89 (96%)	79	4	83 (89%)	2	0	2 (2%)	2	2	4 (4%)	4 (4%)
	University College Hospital	77	77 (100%)	73	0	73 (95%)	0	0	0 (0%)	4	0	4 (5%)	0 (0%)
	University Hospital Coventry	95	87 (92%)	83	1	84 (88%)	0	0	0 (0%)	2	1	3 (3%)	8 (8%)
	University Hospital Of North Staffordshire	68	64 (94%)	64	0	64 (94%)	0	0	0 (0%)	0	0	0 (0%)	4 (6%)

NNU Level	NNU name	Number of eligible babies	Number of babies with a known ROP screening (as % of all eligible babies)	SCREENED ON TIME			SCREENED EARLY			SCREENED LATE			Number of babies with no screening data (as % of eligible babies)
				During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	During care	After discharge	Total (as % of eligible babies)	
	University Hospital Of North Tees #	48	38 (79%)	31	0	31 (65%)	1	0	1 (2%)	6	0	6 (13%)	10 (21%)
	University Hospital Of Wales	51	48 (94%)	40	2	42 (82%)	1	0	1 (2%)	4	1	5 (10%)	3 (6%)
	William Harvey Hospital #	56	50 (89%)	43	0	43 (77%)	1	0	1 (2%)	6	0	6 (11%)	6 (11%)
	Wrexham Maelor Hospital #	33	16 (48%)	11	0	11 (33%)	0	0	0 (0%)	5	0	5 (15%)	17 (52%)
NICU total		3756	3579 (95%)	3070	276	3346 (89%)	20	0	20 (1%)	140	73	213 (6%)	177 (5%)
Total		8000	7497 (94%)	6258	737	6995 (87%)	65	5	70 (1%)	262	170	432 (5%)	503 (6%)

NNAP, 1 January - 31 December 2013

Ω indicates units with complete data and all screens done appropriately

 # Indicates units with less than 90% complete data who were deemed 'non participant' in the outlier analysis

Outlier analysis

1. Participating NNU for outlier analysis

We initially identified 8,000 babies in 175 NNU for inclusion in the outlier analysis. We excluded NNU where more than 10% of babies had no ROP screening records. We also excluded NNU with fewer than 10 babies requiring a screen, and NNU that did not submit a full year of data. This left 128 participating NNU and 6,412 babies. There were 39 NNU (1,329 babies) that did not provide sufficient data to participate in the outlier analysis. The 'non-participant' NNU are indicated in Table 3.4. The non participant units differ from the participant units, being on average smaller, and having particularly incomplete data for more mature IUGR babies. In the participating NNU, 94% of babies with screening records were appropriately screened according to NNAP guidelines.

2. Results of outlier analysis

The outlier analysis was based on complete data in participating NNU – babies with missing data were excluded. We used a staged methodology to identify NNU where the appropriate ROP screening rates were unusually low. As in previous NNAP reports, we chose the thresholds 0.025 and 0.001 to flag NNU with unusually low values. We also adjusted the thresholds for multiple testing. We present the results of the outlier analysis using a funnel plot (Figure 2).

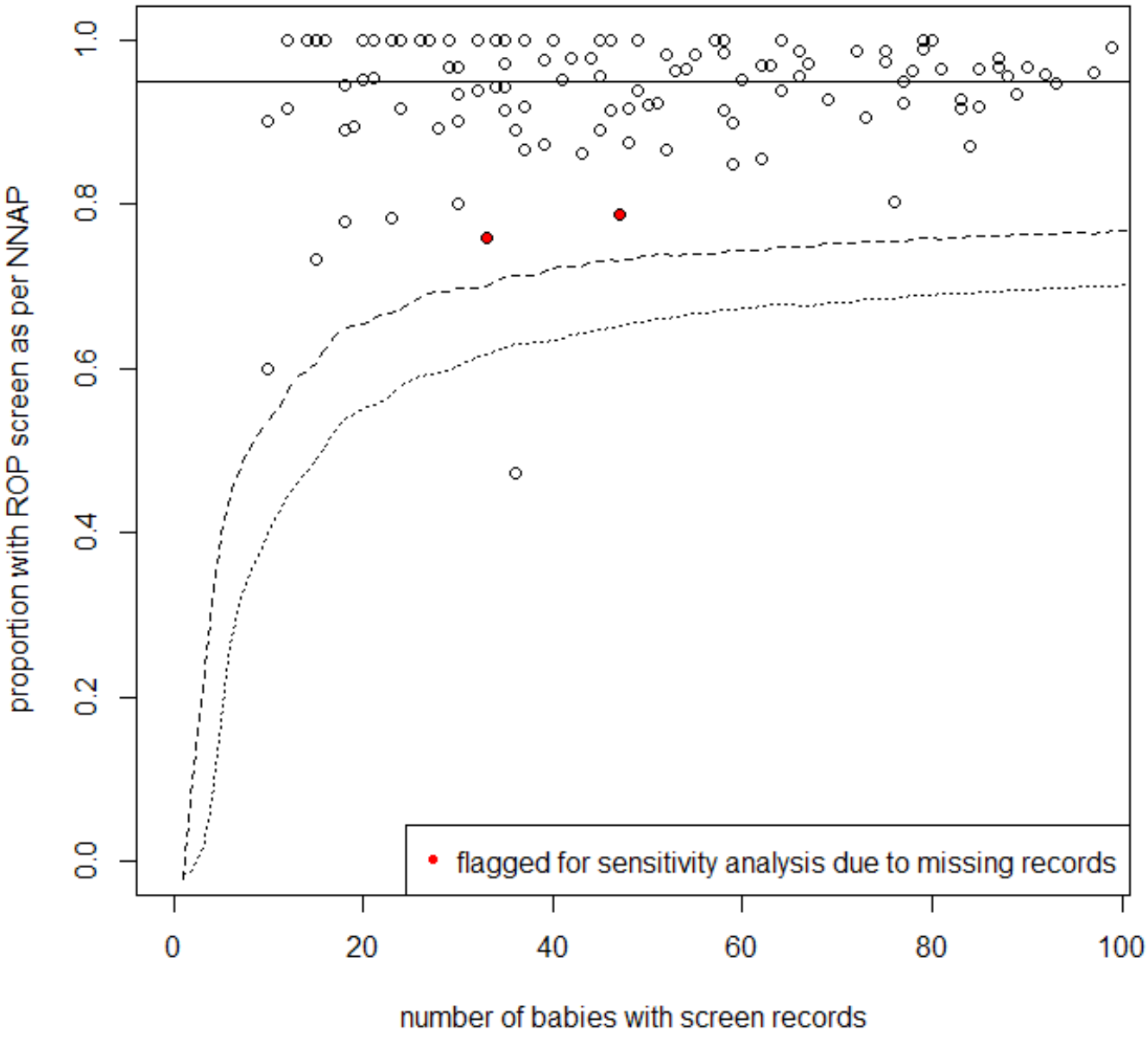
NNU below threshold: We identified one NNU for further investigation. This unit was below the 0.001 threshold. This unit was contacted about potential outlier status, and had an opportunity to review the accuracy of its data prior to the report's publication. Further details on the data outlier analysis process can be found on page 170 of this report.

Sensitivity analysis for NNU above threshold with missing screens: We also checked if NNU close to but above the 0.025 threshold that had some babies with no screening records would fall below the threshold in the worst case scenario that all their babies with no screening records had in fact failed to achieve the NNAP criteria (i.e. not screened at all, or not screened according to NNAP standards). It was found that two NNU could fall below the threshold if all of their missing screens failed to achieve the NNAP standard. If just one of the missing screens in each of these NNU achieved the standard, they would not fall below the 0.025 threshold. No other NNU would fall below the 0.025 threshold under this worst case scenario.

Good performance: There were 22 NNU with no missing screening records and all babies achieving the NNAP standard. These are indicated in table 3.4**.**

Figure 2:
Funnel plot for proportion of babies <32 weeks gestation or <1,501g with screening records who were screened according to NNAP interpretation of RCPCH, RCOphth, BLISS guideline.

Thresholds are 0.001 and 0.025 limits adjusted for multiple testing. Red dots show the two NNU identified by the missing screening records sensitivity analysis. Each dot represents one NNU.



Question 4

What proportion of babies of <33 weeks gestation at birth were receiving any of their own mother's milk at discharge to home from a neonatal unit?

Standard: Benchmarking

Source of Standard: NNAP Board

Results

Only babies who had a final discharge to 'home' at the end of their first episode of care are included in this analysis, i.e. all the babies included in this question were admitted to and stayed in only one NNU before being discharged home.

Of the **10,229** babies born in NNAP NNU at less than 33 weeks there were **5,920** babies born <33 weeks reported by **170** NNU who met the criteria for inclusion in this question.

Daily data summaries for the last or penultimate day of care indicated that **59%** of eligible babies were receiving mother's milk, exclusively or with another form of feeding, at the time of their discharge from neonatal care. Of the remaining babies, **40%** were recorded as receiving others types of feeding* at discharge and **<1%** had no feeding data available from the last or penultimate day of care.

Table 4.1
Babies born <33 weeks and receiving any of their mother's milk when discharged from a neonatal unit by NNU level.

NNU level	Number of eligible NNU	Number of eligible babies	ENTERAL FEEDS AT THE TIME OF DISCHARGE			
			Mother's milk only (% of eligible babies)	Mixed feeds * including Mother's milk (% of eligible babies)	Feeding/ mixed feeds* without Mother's milk (% of eligible babies)	Missing Data (% of eligible babies)
SCU	41	492	173 (35%)	99 (20%)	220 (45%)	0 (0%)
LNU	81	2779	1022 (37%)	694 (25%)	1050 (38%)	13 (0%)
NICU	48	2649	924 (35%)	597 (23%)	1123 (42%)	5 (0%)
Total	**170**	**5920**	**2119 (36%)**	**1390 (23%)**	**2393 (40%)**	**18 (0%)**

NNAP, 1 January - 31 December 2013

**Other types of enteral feeds that could be selected were; 'Formula', 'Donor expressed breast milk' and 'Nil by mouth'.*

Table 4.2

Non-transferred babies born <33 weeks and receiving any of their mother's milk when discharged from a NNU by neonatal network.

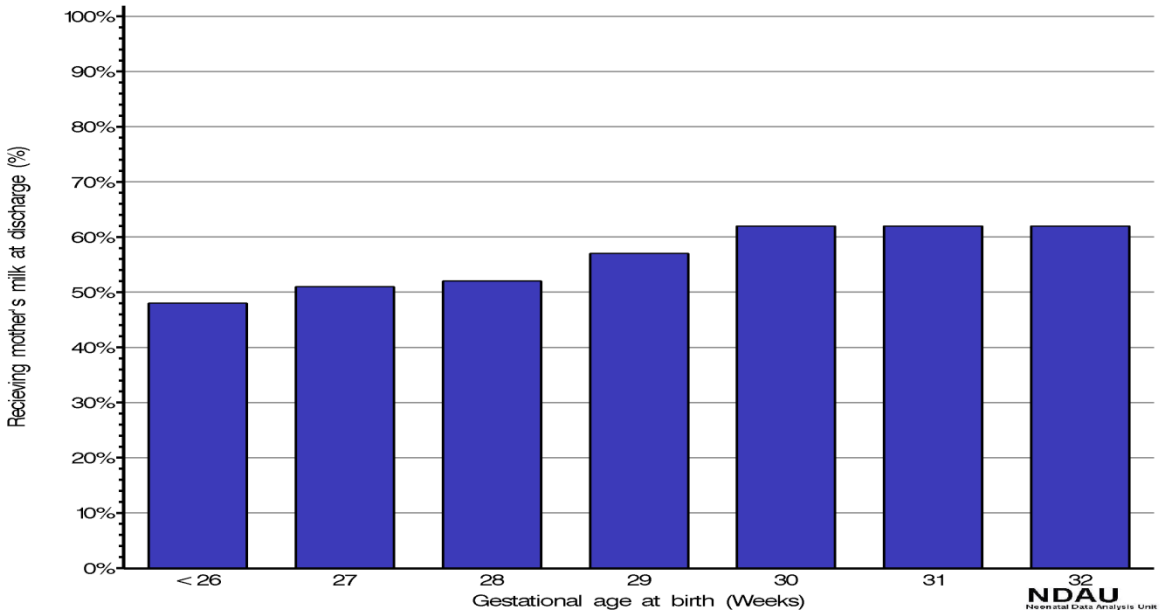
Neonatal network	Number of eligible Babies	ENTERAL FEEDS AT THE TIME OF DISCHARGE			
		Mother's milk only (% of eligible babies)	Mixed feeds * including Mother's milk (% of eligible babies)	Feeding/ mixed feeds* without Mother's milk (% of eligible babies)	Missing Data (% of eligible babies)
Bedfordshire and Hertfordshire	177	69 (39%)	55 (31%)	53 (30%)	0 (0%)
Cheshire & Merseyside	181	42 (23%)	33 (18%)	106 (59%)	0 (0%)
Eastern	348	148 (43%)	86 (25%)	113 (32%)	1 (0%)
Greater Manchester	316	96 (30%)	63 (20%)	157 (50%)	0 (0%)
Kent	172	58 (34%)	31 (18%)	83 (48%)	0 (0%)
Lancashire and South Cumbria	186	44 (24%)	32 (17%)	109 (59%)	1 (1%)
London - North Central	88	32 (36%)	40 (45%)	16 (18%)	0 (0%)
London - North East	354	101 (29%)	148 (42%)	101 (29%)	4 (1%)
London - North West	309	150 (49%)	110 (36%)	49 (16%)	0 (0%)
London - South East	240	108 (45%)	82 (34%)	49 (20%)	1 (0%)
London - South West	193	104 (54%)	48 (25%)	41 (21%)	0 (0%)
Midlands - Central	289	93 (32%)	61 (21%)	134 (46%)	1 (0%)
Midlands - South West	299	135 (45%)	68 (23%)	95 (32%)	1 (0%)
North Trent	229	58 (25%)	54 (24%)	116 (51%)	1 (0%)
Northern	279	60 (22%)	41 (15%)	178 (64%)	0 (0%)
Peninsula - South West	152	57 (38%)	29 (19%)	66 (43%)	0 (0%)
South Central (North)	232	95 (41%)	53 (23%)	84 (36%)	0 (0%)
South Central (South)	302	99 (33%)	82 (27%)	121 (40%)	0 (0%)
Staffordshire,Shropshire and Black Country Newborn Network	266	83 (31%)	40 (15%)	143 (54%)	0 (0%)
Surrey and Sussex	257	129 (50%)	44 (17%)	83 (32%)	1 (0%)
Trent	160	53 (33%)	29 (18%)	78 (49%)	0 (0%)
Wales	248	66 (27%)	43 (17%)	138 (56%)	1 (0%)
Western	286	142 (50%)	45 (16%)	93 (33%)	6 (2%)
Yorkshire	357	97 (27%)	73 (20%)	187 (52%)	0 (0%)
Total	**5920**	**2119 (36%)**	**1390 (23%)**	**2393 (40%)**	**18 (0%)**

NNAP, 1 January - 31 December 2013

**Other types of enteral feeds that could be selected were; 'Formula', 'Donor expressed breast milk' and 'Nil by mouth'.*

Figure 4.1

The proportion of non-transferred babies receiving any of their mother's milk when discharged from a NNU, by gestational age at birth (completed weeks).



NNAP, 1 January - 31 December 2013

Table 4.3

Babies born <33 weeks and receiving any of their mother's milk when discharged from a NNU.

NNU level	NNU name	Number of eligible babies	ENTERAL FEEDS AT THE TIME OF DISCHARGE			
			Mother's milk only (% of eligible babies)	Mixed feeds * including Mother's milk (% of eligible babies)	Feeding/ mixed feeds* without Mother's milk (% of eligible babies)	Missing Data (% of eligible babies)
SCU	Bassetlaw District General Hospital	3	0 (0%)	1 (33%)	2 (67%)	0 (0%)
	Bedford Hospital	9	3 (33%)	2 (22%)	4 (44%)	0 (0%)
	Conquest Hospital	8	3 (38%)	1 (13%)	4 (50%)	0 (0%)
	Cumberland Infirmary	8	0 (0%)	2 (25%)	6 (75%)	0 (0%)
	Darent Valley Hospital	16	1 (6%)	10 (63%)	5 (31%)	0 (0%)
	Darlington Memorial Hospital	14	3 (21%)	1 (7%)	10 (71%)	0 (0%)
	Dewsbury & District Hospital	14	2 (14%)	3 (21%)	9 (64%)	0 (0%)
	Ealing Hospital	28	6 (21%)	16 (57%)	6 (21%)	0 (0%)
	Eastbourne District General Hospital	1	1 (100%)	0 (0%)	0 (0%)	0 (0%)
	Epsom General Hospital	1	1 (100%)	0 (0%)	0 (0%)	0 (0%)
	Frimley Park Hospital	51	24 (47%)	9 (18%)	18 (35%)	0 (0%)
	Furness General Hospital	3	0 (0%)	0 (0%)	3 (100%)	0 (0%)

NNU level	NNU name	Number of eligible babies	ENTERAL FEEDS AT THE TIME OF DISCHARGE			
			Mother's milk only (% of eligible babies)	Mixed feeds * including Mother's milk (% of eligible babies)	Feeding/ mixed feeds* without Mother's milk (% of eligible babies)	Missing Data (% of eligible babies)
	George Eliot Hospital	4	0 (0%)	3 (75%)	1 (25%)	0 (0%)
	Good Hope Hospital	1	0 (0%)	0 (0%)	1 (100%)	0 (0%)
	Harrogate District Hospital	6	6 (100%)	0 (0%)	0 (0%)	0 (0%)
	Hereford County Hospital	8	4 (50%)	1 (13%)	3 (38%)	0 (0%)
	Hinchingbrooke Hospital	22	12 (55%)	2 (9%)	8 (36%)	0 (0%)
	James Paget Hospital	13	5 (38%)	3 (23%)	5 (38%)	0 (0%)
	King's Mill Hospital	25	6 (24%)	7 (28%)	12 (48%)	0 (0%)
	North Devon District Hospital	8	4 (50%)	0 (0%)	4 (50%)	0 (0%)
	North Manchester General Hospital	25	5 (20%)	5 (20%)	15 (60%)	0 (0%)
	Oxford University Hospitals, Horton Hospital	1	0 (0%)	0 (0%)	1 (100%)	0 (0%)
	Pilgrim Hospital	8	0 (0%)	1 (13%)	7 (88%)	0 (0%)
	Princess Royal Hospital	1	0 (0%)	0 (0%)	1 (100%)	0 (0%)
	Princess Royal University Hospital	18	7 (39%)	3 (17%)	8 (44%)	0 (0%)
	Queen Elizabeth Hospital, Gateshead	19	3 (16%)	4 (21%)	12 (63%)	0 (0%)
	Queen Elizabeth The Queen Mother Hospital	11	7 (64%)	0 (0%)	4 (36%)	0 (0%)
	Royal Surrey County Hospital	30	19 (63%)	2 (7%)	9 (30%)	0 (0%)
	Scarborough General Hospital	1	0 (0%)	0 (0%)	1 (100%)	0 (0%)
	Staffordshire General Hospital	5	1 (20%)	0 (0%)	4 (80%)	0 (0%)
	The Royal Free Hospital	5	1 (20%)	0 (0%)	4 (80%)	0 (0%)
	Torbay Hospital	14	7 (50%)	3 (21%)	4 (29%)	0 (0%)
	University Hospital Of North Durham	16	0 (0%)	2 (13%)	14 (88%)	0 (0%)
	Wansbeck General Hospital	7	5 (71%)	0 (0%)	2 (29%)	0 (0%)
	Warwick Hospital	5	1 (20%)	0 (0%)	4 (80%)	0 (0%)
	West Cumberland Hospital	1	1 (100%)	0 (0%)	0 (0%)	0 (0%)
	West Middlesex University Hospital	40	18 (45%)	14 (35%)	8 (20%)	0 (0%)
	West Suffolk Hospital	14	4 (29%)	3 (21%)	7 (50%)	0 (0%)
	Worthing Hospital	17	10 (59%)	1 (6%)	6 (35%)	0 (0%)
	Yeovil District Hospital	5	0 (0%)	0 (0%)	5 (100%)	0 (0%)
	Ysbyty Gwynedd	6	3 (50%)	0 (0%)	3 (50%)	0 (0%)

NNU level	NNU name	Number of eligible babies	ENTERAL FEEDS AT THE TIME OF DISCHARGE			
			Mother's milk only (% of eligible babies)	Mixed feeds * including Mother's milk (% of eligible babies)	Feeding/ mixed feeds* without Mother's milk (% of eligible babies)	Missing Data (% of eligible babies)
SCU total		**492**	**173 (35%)**	**99 (20%)**	**220 (45%)**	**0 (0%)**
LNU	**Airedale General Hospital**	22	6 (27%)	3 (14%)	13 (59%)	0 (0%)
	Barnet Hospital	30	5 (17%)	20 (67%)	5 (17%)	0 (0%)
	Barnsley District General Hospital	22	3 (14%)	4 (18%)	15 (68%)	0 (0%)
	Basildon Hospital	39	5 (13%)	11 (28%)	23 (59%)	0 (0%)
	Basingstoke & North Hampshire Hospital	20	7 (35%)	7 (35%)	6 (30%)	0 (0%)
	Broomfield Hospital	35	14 (40%)	16 (46%)	5 (14%)	0 (0%)
	Calderdale Royal Hospital	58	19 (33%)	12 (21%)	27 (47%)	0 (0%)
	Chesterfield & North Derbyshire Royal Hospital	23	7 (30%)	5 (22%)	11 (48%)	0 (0%)
	City Hospital	76	27 (36%)	18 (24%)	31 (41%)	0 (0%)
	Colchester General Hospital	32	9 (28%)	13 (41%)	10 (31%)	0 (0%)
	Countess Of Chester Hospital	18	2 (11%)	3 (17%)	13 (72%)	0 (0%)
	Croydon University Hospital	47	18 (38%)	14 (30%)	15 (32%)	0 (0%)
	Diana Princess Of Wales Hospital	31	9 (29%)	7 (23%)	14 (45%)	1 (3%)
	Doncaster Royal Infirmary	38	5 (13%)	7 (18%)	26 (68%)	0 (0%)
	Dorset County Hospital	18	5 (28%)	4 (22%)	9 (50%)	0 (0%)
	East Surrey Hospital	39	21 (54%)	8 (21%)	9 (23%)	1 (3%)
	Glangwili General Hospital	3	0 (0%)	2 (67%)	1 (33%)	0 (0%)
	Gloucestershire Royal Hospital	65	37 (57%)	8 (12%)	20 (31%)	0 (0%)
	Great Western Hospital	37	20 (54%)	3 (8%)	12 (32%)	2 (5%)
	Hillingdon Hospital	40	18 (45%)	12 (30%)	10 (25%)	0 (0%)
	Ipswich Hospital	20	9 (45%)	6 (30%)	5 (25%)	0 (0%)
	Kettering General Hospital	36	19 (53%)	6 (17%)	11 (31%)	0 (0%)
	Kingston Hospital	50	23 (46%)	17 (34%)	10 (20%)	0 (0%)
	Leighton Hospital	33	11 (33%)	7 (21%)	15 (45%)	0 (0%)
	Lincoln County Hospital	27	7 (26%)	4 (15%)	16 (59%)	0 (0%)
	Lister Hospital	65	32 (49%)	11 (17%)	22 (34%)	0 (0%)
	Macclesfield District General Hospital	10	6 (60%)	1 (10%)	3 (30%)	0 (0%)
	Manor Hospital	59	10 (17%)	13 (22%)	36 (61%)	0 (0%)

NNU level	NNU name	Number of eligible babies	ENTERAL FEEDS AT THE TIME OF DISCHARGE			
			Mother's milk only (% of eligible babies)	Mixed feeds * including Mother's milk (% of eligible babies)	Feeding/ mixed feeds* without Mother's milk (% of eligible babies)	Missing Data (% of eligible babies)
	Milton Keynes Foundation Trust Hospital	35	15 (43%)	8 (23%)	12 (34%)	0 (0%)
	Nevill Hall Hospital	9	1 (11%)	4 (44%)	4 (44%)	0 (0%)
	Newham General Hospital	79	20 (25%)	45 (57%)	12 (15%)	2 (3%)
	North Middlesex University Hospital	37	11 (30%)	12 (32%)	14 (38%)	0 (0%)
	Northampton General Hospital	47	17 (36%)	14 (30%)	16 (34%)	0 (0%)
	Northwick Park Hospital	62	18 (29%)	41 (66%)	3 (5%)	0 (0%)
	Ormskirk District General Hospital	16	5 (31%)	4 (25%)	7 (44%)	0 (0%)
	Peterborough City Hospital	39	17 (44%)	6 (15%)	15 (38%)	1 (3%)
	Pinderfields General Hospital	33	8 (24%)	5 (15%)	20 (61%)	0 (0%)
	Poole Hospital NHS Foundation Trust	39	9 (23%)	6 (15%)	24 (62%)	0 (0%)
	Prince Charles Hospital	13	2 (15%)	1 (8%)	10 (77%)	0 (0%)
	Princess Alexandra Hospital	27	8 (30%)	9 (33%)	10 (37%)	0 (0%)
	Princess Of Wales Hospital	11	0 (0%)	0 (0%)	11 (100%)	0 (0%)
	Queen Elizabeth Hospital, King's Lynn	26	11 (42%)	4 (15%)	11 (42%)	0 (0%)
	Queen Elizabeth Hospital, Woolwich	39	17 (44%)	13 (33%)	9 (23%)	0 (0%)
	Queen's Hospital, Burton On Trent	36	19 (53%)	4 (11%)	13 (36%)	0 (0%)
	Queen's Hospital, Romford	13	2 (15%)	3 (23%)	8 (62%)	0 (0%)
	Rotherham District General Hospital	21	4 (19%)	4 (19%)	13 (62%)	0 (0%)
	Royal Albert Edward Infirmary	25	5 (20%)	7 (28%)	13 (52%)	0 (0%)
	Royal Berkshire Hospital	47	15 (32%)	11 (23%)	21 (45%)	0 (0%)
	Royal Cornwall Hospital	32	14 (44%)	4 (13%)	14 (44%)	0 (0%)
	Royal Derby Hospital	53	21 (40%)	10 (19%)	22 (42%)	0 (0%)
	Royal Devon & Exeter Hospital	38	14 (37%)	5 (13%)	19 (50%)	0 (0%)
	Royal Glamorgan Hospital	21	5 (24%)	2 (10%)	14 (67%)	0 (0%)
	Royal Hampshire County Hospital	32	16 (50%)	4 (13%)	12 (38%)	0 (0%)
	Royal Lancaster Infirmary	13	3 (23%)	3 (23%)	6 (46%)	1 (8%)
	Royal Shrewsbury Hospital	53	18 (34%)	10 (19%)	25 (47%)	0 (0%)
	Royal United Hospital	43	17 (40%)	9 (21%)	14 (33%)	3 (7%)

NNU level	NNU name	Number of eligible babies	ENTERAL FEEDS AT THE TIME OF DISCHARGE			
			Mother's milk only (% of eligible babies)	Mixed feeds * including Mother's milk (% of eligible babies)	Feeding/ mixed feeds* without Mother's milk (% of eligible babies)	Missing Data (% of eligible babies)
	Russells Hall Hospital	40	13 (33%)	2 (5%)	25 (63%)	0 (0%)
	Salisbury District Hospital	23	8 (35%)	5 (22%)	10 (43%)	0 (0%)
	Scunthorpe General Hospital	10	4 (40%)	1 (10%)	5 (50%)	0 (0%)
	Southend Hospital	27	9 (33%)	11 (41%)	7 (26%)	0 (0%)
	St Helier Hospital	41	30 (73%)	6 (15%)	5 (12%)	0 (0%)
	St Mary's Hospital, Iow	10	2 (20%)	4 (40%)	4 (40%)	0 (0%)
	St Mary's Hospital, London	50	31 (62%)	9 (18%)	10 (20%)	0 (0%)
	St Richard's Hospital	17	5 (29%)	6 (35%)	6 (35%)	0 (0%)
	Stepping Hill Hospital	28	12 (43%)	6 (21%)	10 (36%)	0 (0%)
	Stoke Mandeville Hospital	34	12 (35%)	6 (18%)	16 (47%)	0 (0%)
	Tameside General Hospital	18	4 (22%)	2 (11%)	12 (67%)	0 (0%)
	Taunton & Somerset Hospital	38	22 (58%)	3 (8%)	12 (32%)	1 (3%)
	Tunbridge Wells Hospital	43	21 (49%)	5 (12%)	17 (40%)	0 (0%)
	University Hospital Lewisham	53	16 (30%)	26 (49%)	11 (21%)	0 (0%)
	University Hospital Of South Manchester	37	15 (41%)	8 (22%)	14 (38%)	0 (0%)
	Victoria Hospital, Blackpool	29	6 (21%)	8 (28%)	15 (52%)	0 (0%)
	Warrington Hospital	32	6 (19%)	9 (28%)	17 (53%)	0 (0%)
	Watford General Hospital	56	26 (46%)	18 (32%)	12 (21%)	0 (0%)
	Wexham Park Hospital	53	20 (38%)	19 (36%)	14 (26%)	0 (0%)
	Whipps Cross University Hospital	40	17 (43%)	16 (40%)	7 (18%)	0 (0%)
	Whiston Hospital	33	9 (27%)	1 (3%)	23 (70%)	0 (0%)
	Whittington Hospital	43	21 (49%)	18 (42%)	4 (9%)	0 (0%)
	Withybush Hospital	8	4 (50%)	2 (25%)	2 (25%)	0 (0%)
	Worcestershire Royal Hospital	66	36 (55%)	11 (17%)	18 (27%)	1 (2%)
	York District Hospital	18	7 (39%)	2 (11%)	9 (50%)	0 (0%)
LNU total		**2779**	**1022 (37%)**	**694 (25%)**	**1050 (38%)**	**13 (0%)**
NICU	**Arrowe Park Hospital**	39	3 (8%)	8 (21%)	28 (72%)	0 (0%)
	Birmingham Heartlands Hospital	71	36 (51%)	13 (18%)	22 (31%)	0 (0%)
	Birmingham Women's Hospital	77	32 (42%)	25 (32%)	20 (26%)	0 (0%)
	Bradford Royal Infirmary	52	13 (25%)	10 (19%)	29 (56%)	0 (0%)

NNU level	NNU name	Number of eligible babies	ENTERAL FEEDS AT THE TIME OF DISCHARGE			
			Mother's milk only (% of eligible babies)	Mixed feeds * including Mother's milk (% of eligible babies)	Feeding/ mixed feeds* without Mother's milk (% of eligible babies)	Missing Data (% of eligible babies)
	Chelsea & Westminster Hospital	58	38 (66%)	10 (17%)	10 (17%)	0 (0%)
	Derriford Hospital	60	18 (30%)	17 (28%)	25 (42%)	0 (0%)
	Glan Clwyd Hospital	28	5 (18%)	6 (21%)	17 (61%)	0 (0%)
	Guy's & St Thomas' Hospital	64	34 (53%)	22 (34%)	8 (13%)	0 (0%)
	Homerton Hospital	68	16 (24%)	31 (46%)	21 (31%)	0 (0%)
	Hull Royal Infirmary	63	12 (19%)	20 (32%)	31 (49%)	0 (0%)
	James Cook University Hospital	44	6 (14%)	4 (9%)	34 (77%)	0 (0%)
	King's College Hospital	66	34 (52%)	18 (27%)	13 (20%)	1 (2%)
	Lancashire Women & Newborn Centre	93	22 (24%)	15 (16%)	56 (60%)	0 (0%)
	Leeds Neonatal Service	90	24 (27%)	18 (20%)	48 (53%)	0 (0%)
	Leicester Neonatal Service	106	19 (18%)	25 (24%)	61 (58%)	1 (1%)
	Luton & Dunstable Hospital	47	8 (17%)	24 (51%)	15 (32%)	0 (0%)
	Medway Maritime Hospital	60	13 (22%)	14 (23%)	33 (55%)	0 (0%)
	New Cross Hospital	42	18 (43%)	6 (14%)	18 (43%)	0 (0%)
	Norfolk & Norwich University Hospital	73	37 (51%)	9 (12%)	27 (37%)	0 (0%)
	North Bristol NHS Trust (Southmead)	63	31 (49%)	20 (32%)	12 (19%)	0 (0%)
	Nottingham City Hospital	37	17 (46%)	5 (14%)	15 (41%)	0 (0%)
	Nottingham University Hospital (QMC)	10	2 (20%)	2 (20%)	6 (60%)	0 (0%)
	Oxford University Hospitals, John Radcliffe Hospital	62	33 (53%)	9 (15%)	20 (32%)	0 (0%)
	Princess Anne Hospital	60	27 (45%)	15 (25%)	18 (30%)	0 (0%)
	Queen Alexandra Hospital	83	20 (24%)	31 (37%)	32 (39%)	0 (0%)
	Queen Charlotte's Hospital	31	21 (68%)	8 (26%)	2 (6%)	0 (0%)
	Rosie Maternity Hospital, Addenbrookes	47	22 (47%)	15 (32%)	10 (21%)	0 (0%)
	Royal Bolton Hospital	64	24 (38%)	9 (14%)	31 (48%)	0 (0%)
	Royal Gwent Hospital	40	8 (20%)	9 (23%)	23 (58%)	0 (0%)
	Royal Oldham Hospital	54	14 (26%)	8 (15%)	32 (59%)	0 (0%)
	Royal Preston Hospital	48	13 (27%)	6 (13%)	29 (60%)	0 (0%)
	Royal Sussex County Hospital	49	19 (39%)	11 (22%)	19 (39%)	0 (0%)
	Royal Victoria Infirmary	77	21 (27%)	16 (21%)	40 (52%)	0 (0%)

NNU level	NNU name	Number of eligible babies	ENTERAL FEEDS AT THE TIME OF DISCHARGE			
			Mother's milk only (% of eligible babies)	Mixed feeds * including Mother's milk (% of eligible babies)	Feeding/ mixed feeds* without Mother's milk (% of eligible babies)	Missing Data (% of eligible babies)
	Singleton Hospital	38	17 (45%)	2 (5%)	19 (50%)	0 (0%)
	St George's Hospital	54	32 (59%)	11 (20%)	11 (20%)	0 (0%)
	St Mary's Hospital, Manchester	65	17 (26%)	18 (28%)	30 (46%)	0 (0%)
	St Michael's Hospital	35	15 (43%)	2 (6%)	18 (51%)	0 (0%)
	St Peter's Hospital	61	32 (52%)	12 (20%)	17 (28%)	0 (0%)
	Sunderland Royal Hospital	54	16 (30%)	5 (9%)	33 (61%)	0 (0%)
	The Jessop Wing, Sheffield	81	26 (32%)	25 (31%)	30 (37%)	0 (0%)
	The Royal London Hospital	51	21 (41%)	19 (37%)	9 (18%)	2 (4%)
	University College Hospital	10	5 (50%)	2 (20%)	3 (30%)	0 (0%)
	University Hospital Coventry	55	18 (33%)	9 (16%)	28 (51%)	0 (0%)
	University Hospital Of North Staffordshire	67	23 (34%)	9 (13%)	35 (52%)	0 (0%)
	University Hospital Of North Tees	39	5 (13%)	7 (18%)	27 (69%)	0 (0%)
	University Hospital Of Wales	38	15 (39%)	14 (37%)	9 (24%)	0 (0%)
	William Harvey Hospital	42	16 (38%)	2 (5%)	24 (57%)	0 (0%)
	Wrexham Maelor Hospital	33	6 (18%)	1 (3%)	25 (76%)	1 (3%)
NICU total		**2649**	**924 (35%)**	**597 (23%)**	**1123 (42%)**	**5 (0%)**
Total		**5920**	**2119 (36%)**	**1390 (23%)**	**2393 (40%)**	**18 (0%)**

NNAP, 1 January - 31 December 2013

**Other types of enteral feeds that could be selected were; 'Formula', 'Donor expressed breast milk' and 'Nil by mouth'.*

Outlier analysis

1. Participating NNU for outlier analysis

We initially identified 5,920 babies in 170 NNU for inclusion in the outlier analysis. No NNU had >10% missing feeding records at discharge, so none were classified as 'non-participant'. We excluded NNU with fewer than 10 eligible babies, and NNU that did not submit a full year of data. This left 144 NNU and 5,777 babies born to 5,143 mothers for the outlier analysis. In the included NNU, 60% of babies with feeding records were wholly or partially fed with their own mother's milk at discharge home.

2. Results of outlier analysis

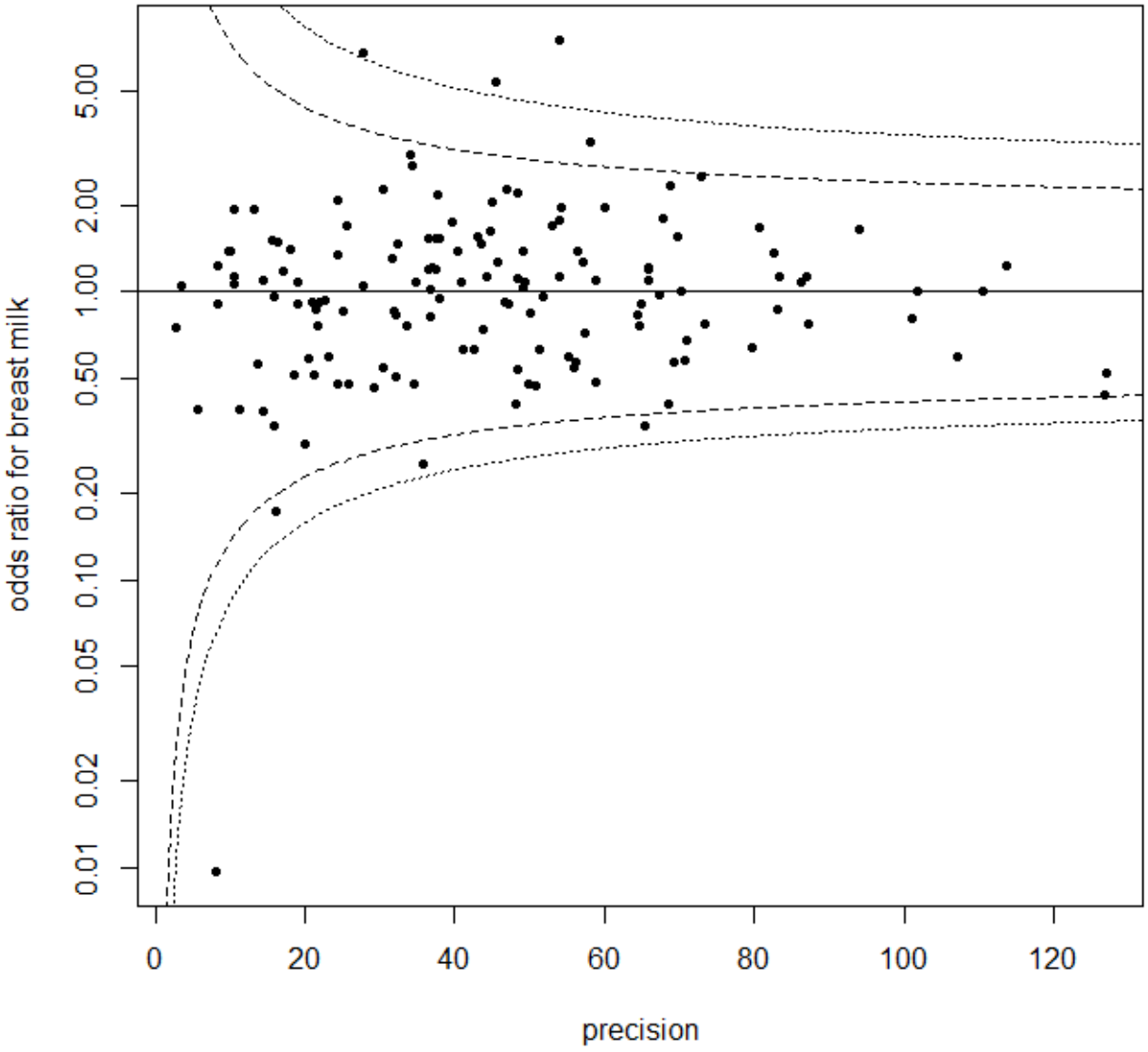
The main outlier analysis was based on complete feeding data in included NNU. We calculated the expected rate of discharge breastmilk feeding in each NNU, based on the characteristics of mothers, and compared the actual rate of breastmilk feeding with the expected rate. We used a staged methodology to identify NNU where the breastmilk feeding rates were unusually low. As in previous NNAP reports, we chose the thresholds 0.025 and 0.001 to flag NNU with unusually low values. The thresholds demarcate the breastmilk feeding rates where the probabilities are 0.025 and 0.001 of seeing a NNU fall below these levels when it is truly consistent with the breastmilk feeding rate in the population of usual NNU. We adjusted the thresholds for multiple testing. We also identified NNU above the 0.975 and 0.999 thresholds. We present the results of the outlier analysis using a funnel plot (Figure 4.2).

NNU outside thresholds: We identified six NNU with unusually low numbers of babies fed mother's breast milk at discharge. These NNU were contacted about potential outlier status, and had an opportunity to review the accuracy of their data prior to the report's publication. Further details on the data outlier analysis process can be found on page 170 of this report. We also identified six NNU with unusually high numbers of babies breastmilk fed at discharge. We looked at the NNU-level average characteristics of the mothers whose babies were included in the breastmilk feeding outlier analysis. The expected rates for each NNU were based on these maternal characteristics, with lower expected rates for NNU with younger mothers, living in more deprived areas, with higher levels of smoking and higher proportions whose self-reported NHS ethnic category code was white, subcategory British. Even after the adjustment, the NNU flagged as low outliers tend to have younger mothers, a higher proportion white/British and higher rates of smoking during pregnancy than the population average (population average smoking rate 21%, white/British 64%, average age 30.2 years). NNU flagged as high outliers tend to have older mothers, a lower proportion of white/British and a lower proportion of smokers.

Sensitivity analysis for NNU above threshold with missing feeding records: We did not conduct a sensitivity analysis to allow for missing data as so few data were missing.

Figure 4.2
Funnel plot of the odds ratio of actual breastmilk feeding to expected breastmilk feeding.

When actual breastmilk feeding is equal to expected breastmilk feeding given the characteristics of the included mothers and babies, the odds ratio will be equal to one, and this is shown as a horizontal line. NNU with higher than expected odds of breastmilk feeding lie above the horizontal line and NNU with lower than expected odds of breastmilk feeding lie below the horizontal line, but are not flagged as unusually high or low unless they fall outside the thresholds. The X axis is the precision; the precision is based on the variance of the log odds ratio and approximates the number of babies in each NNU. Thresholds are adjusted for multiple testing, setting the expected False Discovery Rate to 5% for the inner curves and 0.2% for the outer curves.



Question 5

Is there a documented consultation with parents by a senior member of the neonatal team within 24 hours of admission?

Standard: 100%

Source of Standard: NNAP Board

Results

There were **79,699** first episodes of care reported by **176** NNU that were considered for this question. Babies who were not categorised as receiving HRG 1, 2 or 3 on a NNU during their first day of care, or who were admitted for less than 12 hours, were excluded from the analysis; this left **50,757** episodes eligible for the audit question. The requirement for a 12 hour stay is a revision to previous NNAP methodology.

A senior member of the neonatal team consulted parents or carers within 24 hours of admission for **84%** of eligible episodes. Consultations that occurred before admission, or more than 24 hours after admission, were recorded in **7%** of eligible episodes. No consultation occurred for **3%** of eligible episodes and data on consultations was either missing or 'unknown' for **5%** of eligible episodes.

Table 5.1
Number of parents and/or carers of babies seen by a senior member of the neonatal team within 24 hours of admission by NNU level.

NNU level	Number of eligible NNU	Number of eligible babies	TIME OF FIRST CONSULTATION WITH PARENTS AND/OR CARERS (FROM ADMISSION)				
			Within 24 hours (% of eligible episodes)	After 24 hours (% of eligible episodes)	Before admission (% of eligible episodes)	No consultation (% of eligible episodes)	Missing/ unknown data (% of eligible episodes)
SCU	45	7213	5702 (79%)	187 (3%)	471 (7%)	235 (3%)	618 (9%)
LNU	82	22435	19322 (86%)	530 (2%)	829 (4%)	564 (3%)	1190 (5%)
NICU	49	21109	17783 (84%)	669 (3%)	973 (5%)	756 (4%)	928 (4%)
Total	176	50757	42807 (84%)	1386 (3%)	2273 (4%)	1555 (3%)	2736 (5%)

NNAP, 1 January - 31 December 2013

Table 5.2

Number of parents and/or carers of babies seen by a senior member of the neonatal team within 24 hours of admission by neonatal network.

Neonatal network	Number of eligible babies	TIME OF FIRST CONSULTATION WITH PARENTS AND/OR CARERS (FROM ADMISSION)				
		Within 24 hours (% of eligible episodes)	After 24 hours (% of eligible episodes)	Before admission (% of eligible episodes)	No consultation (% of eligible episodes)	Missing/ unknown data (% of eligible episodes)
Bedfordshire and Hertfordshire	1997	1789 (90%)	29 (1%)	47 (2%)	47 (2%)	85 (4%)
Cheshire and Merseyside	2150	1706 (79%)	192 (9%)	27 (1%)	134 (6%)	91 (4%)
Eastern	3208	2900 (90%)	60 (2%)	125 (4%)	53 (2%)	70 (2%)
Greater Manchester	2813	2075 (74%)	149 (5%)	190 (7%)	104 (4%)	295 (10%)
Kent	1618	1380 (85%)	22 (1%)	100 (6%)	62 (4%)	54 (3%)
Lancashire and South Cumbria	1229	982 (80%)	47 (4%)	50 (4%)	19 (2%)	131 (11%)
London - North Central	1497	1289 (86%)	20 (1%)	112 (7%)	45 (3%)	31 (2%)
London - North East	3025	2642 (87%)	98 (3%)	119 (4%)	93 (3%)	73 (2%)
London - North West	2309	1786 (77%)	88 (4%)	195 (8%)	74 (3%)	166 (7%)
London - South East	1852	1685 (91%)	57 (3%)	60 (3%)	36 (2%)	14 (1%)
London - South West	1510	1364 (90%)	24 (2%)	27 (2%)	35 (2%)	60 (4%)
Midlands - Central	1964	1656 (84%)	33 (2%)	142 (7%)	67 (3%)	66 (3%)
Midlands - South West	2571	1981 (77%)	83 (3%)	234 (9%)	74 (3%)	199 (8%)
North Trent	1972	1767 (90%)	40 (2%)	93 (5%)	48 (2%)	24 (1%)
Northern	2190	1708 (78%)	30 (1%)	136 (6%)	81 (4%)	235 (11%)
Peninsula - South West	1323	1073 (81%)	106 (8%)	44 (3%)	22 (2%)	78 (6%)
South Central (North)	2215	2178 (98%)	7 (0%)	4 (0%)	9 (0%)	17 (1%)
South Central (South)	2355	2320 (99%)	15 (1%)	3 (0%)	7 (0%)	10 (0%)
Staffordshire, Shropshire and Black Country Newborn Network	1872	1649 (88%)	48 (3%)	60 (3%)	79 (4%)	36 (2%)
Surrey and Sussex	2128	1924 (90%)	28 (1%)	47 (2%)	34 (2%)	95 (4%)

Neonatal network	Number of eligible babies	TIME OF FIRST CONSULTATION WITH PARENTS AND/OR CARERS (FROM ADMISSION)				
		Within 24 hours (% of eligible episodes)	After 24 hours (% of eligible episodes)	Before admission (% of eligible episodes)	No consultation (% of eligible episodes)	Missing/ unknown data (% of eligible episodes)
Trent	1444	1124 (78%)	46 (3%)	62 (4%)	69 (5%)	143 (10%)
Wales	2274	1484 (65%)	45 (2%)	143 (6%)	178 (8%)	424 (19%)
Western	2381	1809 (76%)	55 (2%)	200 (8%)	106 (4%)	211 (9%)
Yorkshire	2860	2536 (89%)	64 (2%)	53 (2%)	79 (3%)	128 (4%)
Total	**50757**	**42807 (84%)**	**1386 (3%)**	**2273 (4%)**	**1555 (3%)**	**2736 (5%)**

Table 5.3
Comparison to first consultation audit results in previous NNAP audits.

Year	Number of eligible NNU	Number of eligible episodes	TIME OF FIRST CONSULTATION WITH PARENTS AND/OR CARERS (FROM ADMISSION)			
			Within 24 hours (% of eligible episode)	After 24 hours (% of eligible episodes)	Before admission (% of eligible episodes	Missing*/ Unknown data (% of eligible episodes)
2008	169	29438	16538 (56%)	-	-	11859 (40%)
2009	167	57203	25704 (45%)	6254 (11%)	Excluded from analysis	10599 (19%)
2010	172	60183	40199 (67%)	2514 (4%)	Excluded from analysis	17470 (29%)
2011	164	50469	34450 (68%)	2289 (5%)	5858 (11%)	7872 (16%)
2012	174	54409	42792 (79%)	1754 (3%)	4165 (8%)	5698 (10%)
2013	176	50757	42807 (84%)	1386 (3%)	2273 (4%)	4291 (8%)

NNAP, 1 January - 31 December 2013

**For the purpose of comparison with previous years, all episodes categorised as 'no consultation' in 2012 and 2013 data are included under the 'missing/unknown data' heading.*

Table 5.4

Number of parents and/or carers of babies seen by a senior member of the neonatal team within 24 hours of admission by NNU.

NNU level	NNU name	Eligible episodes	TIME OF FIRST CONSULTATION WITH PARENTS AND/OR CARERS (FROM ADMISSION)				
			Within 24 hours (% of eligible episode)	After 24 hours	Before admission	No consultation	Missing/ unknown data
SCU	Alexandra Hospital #	97	64 (66%)	1	3	3	26
	Bassetlaw District General Hospital	93	83 (89%)	1	9	0	0
	Bedford Hospital	306	304 (99%)	0	0	2	0
	Chase Farm Hospital	129	99 (77%)	2	18	6	4
	Conquest Hospital #	167	112 (67%)	0	15	10	30
	Cumberland Infirmary #	172	57 (33%)	6	0	26	83
	Darent Valley Hospital	352	286 (81%)	4	43	11	8
	Darlington Memorial Hospital	133	123 (92%)	3	5	1	1
	Dewsbury and District Hospital	173	165 (95%)	4	0	3	1
	Ealing Hospital	182	127 (70%)	17	22	6	10
	Eastbourne District General Hospital	51	28 (55%)	0	2	1	20
	Epsom General Hospital	117	114 (97%)	1	0	0	2
	Frimley Park Hospital	354	346 (98%)	6	1	0	1
	Furness General Hospital #	65	28 (43%)	0	5	1	31
	George Eliot Hospital	103	84 (82%)	1	7	3	8
	Good Hope Hospital	258	188 (73%)	3	43	9	15
	Harrogate District Hospital #	101	74 (73%)	1	6	3	17
	Hereford County Hospital	173	141 (82%)	4	17	6	5
	Hinchingbrooke Hospital	142	109 (77%)	3	18	2	10
	James Paget Hospital	138	100 (72%)	5	20	2	11
	King George Hospital	9	8 (89%)	0	0	1	0
	King's Mill Hospital #	188	122 (65%)	11	11	4	40
	North Devon District Hospital	93	88 (95%)	0	4	0	1
	North Manchester General Hospital #	307	205 (67%)	16	31	14	41

NNU level	NNU name	Eligible episodes	TIME OF FIRST CONSULTATION WITH PARENTS AND/OR CARERS (FROM ADMISSION)				
			Within 24 hours (% of eligible episode)	After 24 hours	Before admission	No consultation	Missing/ unknown data
	Oxford University Hospitals, Horton Hospital Ω	72	72 (100%)	0	0	0	0
	Pilgrim Hospital	150	141 (94%)	2	1	6	0
	Princess Royal Hospital	160	142 (89%)	0	13	0	5
	Princess Royal University Hospital	205	152 (74%)	11	27	2	13
	Queen Elizabeth Hospital, Gateshead	154	149 (97%)	4	1	0	0
	Queen Elizabeth The Queen Mother Hospital	165	141 (85%)	0	18	1	5
	Royal Surrey County Hospital #	161	122 (76%)	4	9	3	23
	Scarborough General Hospital #	99	58 (59%)	2	5	13	21
	South Tyneside District Hospital #	69	54 (78%)	0	1	0	14
	Staffordshire General Hospital	128	122 (95%)	1	4	1	0
	The Royal Free Hospital	218	140 (64%)	9	28	21	20
	Torbay Hospital	169	126 (75%)	24	6	12	1
	University Hospital Of North Durham	143	119 (83%)	5	9	4	6
	Wansbeck General Hospital	175	160 (91%)	1	14	0	0
	Warwick Hospital	242	202 (83%)	17	3	17	3
	West Cumberland Hospital #	138	42 (30%)	1	3	18	74
	West Middlesex University Hospital	322	258 (80%)	10	27	12	15
	West Suffolk Hospital	185	182 (98%)	3	0	0	0
	Worthing Hospital Ω	157	157 (100%)	0	0	0	0
	Yeovil District Hospital #	90	45 (50%)	2	13	1	29
	Ysbyty Gwynedd #	108	63 (58%)	2	9	10	24
SCU Total		**7213**	**5702 (79%)**	**187**	**471**	**235**	**618**
LNU	**Airedale General Hospital #**	172	136 (79%)	1	8	3	24
	Barnet Hospital	301	257 (85%)	4	32	4	4
	Barnsley District General Hospital	212	201 (95%)	6	5	0	0
	Basildon Hospital	330	321 (97%)	3	2	1	3

NNU level	NNU name	Eligible episodes	TIME OF FIRST CONSULTATION WITH PARENTS AND/OR CARERS (FROM ADMISSION)				
			Within 24 hours (% of eligible episode)	After 24 hours	Before admission	No consultation	Missing/ unknown data
	Basingstoke and North Hampshire Hospital Ω	205	205 (100%)	0	0	0	0
	Bronglais General Hospital Ω	1	1 (100%)	0	0	0	0
	Broomfield Hospital	242	207 (86%)	2	0	33	0
	Calderdale Royal Hospital	396	387 (98%)	9	0	0	0
	Chesterfield and North Derbyshire Royal Hospital	270	256 (95%)	1	13	0	0
	City Hospital	412	363 (88%)	33	6	7	3
	Colchester General Hospital Ω	284	284 (100%)	0	0	0	0
	Countess Of Chester Hospital Ω	255	254 (100%)	0	1	0	0
	Croydon University Hospital	408	398 (98%)	1	5	2	2
	Diana Princess Of Wales Hospital	213	172 (81%)	5	26	5	5
	Doncaster Royal Infirmary	257	250 (97%)	0	6	1	0
	Dorset County Hospital	200	195 (98%)	2	1	1	1
	East Surrey Hospital	333	328 (98%)	0	1	1	3
	Glangwili General Hospital	101	72 (71%)	5	12	4	8
	Gloucestershire Royal Hospital	449	292 (65%)	15	86	18	38
	Great Western Hospital #	274	169 (62%)	11	21	17	56
	Hillingdon Hospital	300	268 (89%)	18	6	5	3
	Ipswich Hospital #	420	311 (74%)	11	38	13	47
	Kettering General Hospital	229	222 (97%)	1	1	2	3
	Kingston Hospital	338	327 (97%)	3	5	0	3
	Leighton Hospital	196	194 (99%)	0	0	2	0
	Lincoln County Hospital	255	229 (90%)	4	0	22	0
	Lister Hospital #	674	514 (76%)	17	32	32	79
	Macclesfield District General Hospital	88	77 (88%)	3	0	5	3
	Manor Hospital	379	298 (79%)	22	10	37	12
	Milton Keynes Foundation Trust Hospital	267	256 (96%)	2	1	2	6

NNU level	NNU name	Eligible episodes	TIME OF FIRST CONSULTATION WITH PARENTS AND/OR CARERS (FROM ADMISSION)				
			Within 24 hours (% of eligible episode)	After 24 hours	Before admission	No consultation	Missing/ unknown data
	Nevill Hall Hospital #	166	104 (63%)	2	12	11	37
	Newham General Hospital	382	334 (87%)	17	21	3	7
	North Middlesex University Hospital	231	182 (79%)	13	29	7	0
	Northampton General Hospital	255	223 (87%)	6	12	7	7
	Northwick Park Hospital	448	399 (89%)	2	4	13	30
	Ormskirk District General Hospital	186	167 (90%)	7	1	3	8
	Peterborough City Hospital	257	233 (91%)	3	19	1	1
	Pinderfields General Hospital	232	227 (98%)	1	3	0	1
	Poole Hospital NHS Foundation Trust	265	261 (98%)	4	0	0	0
	Prince Charles Hospital #	130	71 (55%)	1	6	7	45
	Princess Alexandra Hospital	312	299 (96%)	9	4	0	0
	Princess Of Wales Hospital	188	84 (45%)	1	15	17	71
	Queen Elizabeth Hospital, King's Lynn	183	181 (99%)	1	1	0	0
	Queen Elizabeth Hospital, Woolwich	239	226 (95%)	6	7	0	0
	Queen's Hospital, Burton On Trent	163	160 (98%)	0	0	0	3
	Queen's Hospital, Romford	513	457 (89%)	8	22	26	0
	Rotherham District General Hospital	179	164 (92%)	7	0	8	0
	Royal Albert Edward Infirmary	236	200 (85%)	5	4	3	24
	Royal Berkshire Hospital	393	391 (99%)	1	0	0	1
	Royal Cornwall Hospital	433	374 (86%)	16	11	6	26
	Royal Derby Hospital	325	272 (84%)	13	9	12	19
	Royal Devon and Exeter Hospital #	323	226 (70%)	51	3	3	40
	Royal Glamorgan Hospital	192	135 (70%)	3	8	27	19
	Royal Hampshire County Hospital Ω	298	298 (100%)	0	0	0	0
	Royal Lancaster Infirmary #	126	81 (64%)	6	10	0	29
	Royal Shrewsbury Hospital	346	326 (94%)	5	15	0	0
	Royal United Hospital #	396	272 (69%)	9	44	19	52

NNU level	NNU name	Eligible episodes	TIME OF FIRST CONSULTATION WITH PARENTS AND/OR CARERS (FROM ADMISSION)				
			Within 24 hours (% of eligible episode)	After 24 hours	Before admission	No consultation	Missing/ unknown data
	Russells Hall Hospital	338	295 (87%)	10	8	10	15
	Salisbury District Hospital	202	194 (96%)	3	1	2	2
	Scunthorpe General Hospital	173	117 (68%)	0	22	16	18
	Southend Hospital	359	311 (87%)	22	10	13	3
	St Helier Hospital	247	245 (99%)	2	0	0	0
	St Mary's Hospital, IOW	125	117 (94%)	0	1	0	7
	St Mary's Hospital, London #	218	140 (64%)	12	25	8	33
	St Richard's Hospital	161	159 (99%)	1	0	1	0
	Stepping Hill Hospital #	206	120 (58%)	7	1	2	76
	Stoke Mandeville Hospital Ω	338	337 (100%)	1	0	0	0
	Tameside General Hospital	162	137 (85%)	14	7	3	1
	Taunton and Somerset Hospital	267	178 (67%)	11	35	43	0
	Tunbridge Wells Hospital	370	303 (82%)	3	23	9	32
	University Hospital Lewisham	336	333 (99%)	3	0	0	0
	University Hospital Of South Manchester	296	260 (88%)	16	2	3	15
	Victoria Hospital, Blackpool	195	166 (85%)	11	7	7	4
	Warrington Hospital #	235	175 (74%)	3	2	7	48
	Watford General Hospital	550	524 (95%)	8	13	0	5
	Wexham Park Hospital	461	440 (95%)	2	2	7	10
	Whipps Cross University Hospital #	252	171 (68%)	6	23	13	39
	Whiston Hospital	236	217 (92%)	5	3	2	9
	Whittington Hospital	307	251 (82%)	5	34	14	3
	Withybush Hospital #	70	26 (37%)	0	5	1	38
	Worcestershire Royal Hospital #	262	160 (61%)	4	19	3	76
	York District Hospital #	211	155 (73%)	5	8	10	33
LNU Total		**22435**	**19322 (86%)**	**530**	**829**	**564**	**1190**
NICU	**Arrowe Park Hospital**	287	231 (80%)	10	13	22	11

NNU level	NNU name	Eligible episodes	TIME OF FIRST CONSULTATION WITH PARENTS AND/OR CARERS (FROM ADMISSION)				
			Within 24 hours (% of eligible episode)	After 24 hours	Before admission	No consultation	Missing/ unknown data
	Birmingham Heartlands Hospital	648	516 (80%)	13	69	15	35
	Birmingham Women's Hospital	721	549 (76%)	25	77	31	39
	Bradford Royal Infirmary	394	360 (91%)	11	1	17	5
	Chelsea and Westminster Hospital	508	370 (73%)	21	69	16	32
	Derriford Hospital	305	259 (85%)	15	20	1	10
	Glan Clwyd Hospital	195	79 (41%)	1	3	45	67
	Guy's and St Thomas' Hospital	553	487 (88%)	30	2	34	0
	Homerton Hospital	568	541 (95%)	26	1	0	0
	Hull Royal Infirmary	373	301 (81%)	13	18	18	23
	James Cook University Hospital	280	201 (72%)	2	52	21	4
	King's College Hospital	519	487 (94%)	7	24	0	1
	Lancashire Women and Newborn Centre	482	449 (93%)	14	6	6	7
	Leeds Neonatal Service	709	673 (95%)	17	4	12	3
	Leicester Neonatal Service	596	447 (75%)	4	106	23	16
	Liverpool Women's Hospital	667	391 (59%)	164	7	93	12
	Luton and Dunstable Hospital	467	447 (96%)	4	2	13	1
	Medway Maritime Hospital	457	444 (97%)	13	0	0	0
	New Cross Hospital	309	249 (81%)	10	23	18	9
	Norfolk and Norwich University Hospital	460	440 (96%)	17	1	2	0
	North Bristol NHS Trust (Southmead)	572	546 (95%)	7	1	4	14
	Nottingham City Hospital #	271	189 (70%)	9	22	15	36
	Nottingham University Hospital (QMC) #	255	171 (67%)	7	19	10	48
	Oxford University Hospitals, John Radcliffe Hospital Ω	684	682 (100%)	1	1	0	0
	Princess Anne Hospital	470	463 (99%)	5	0	2	0
	Queen Alexandra Hospital Ω	429	428 (100%)	0	0	1	0
	Queen Charlotte's Hospital #	331	224 (68%)	8	42	14	43
	Rosie Maternity Hospital, Addenbrookes	585	554 (95%)	6	24	0	1

NNU level	NNU name	Eligible episodes	TIME OF FIRST CONSULTATION WITH PARENTS AND/OR CARERS (FROM ADMISSION)				
			Within 24 hours (% of eligible episode)	After 24 hours	Before admission	No consultation	Missing/ unknown data
	Royal Bolton Hospital	500	367 (73%)	24	48	14	47
	Royal Gwent Hospital #	347	241 (69%)	9	30	28	39
	Royal Oldham Hospital	430	370 (86%)	24	16	19	1
	Royal Preston Hospital #	361	258 (71%)	16	22	5	60
	Royal Sussex County Hospital	329	312 (95%)	7	0	1	9
	Royal Victoria Infirmary	401	357 (89%)	2	0	2	40
	Singleton Hospital	273	258 (95%)	7	2	4	2
	St George's Hospital #	400	280 (70%)	17	17	33	53
	St Mary's Hospital, Manchester #	676	416 (62%)	43	81	46	90
	St Michael's Hospital	333	307 (92%)	0	0	4	22
	St Peter's Hospital	416	377 (91%)	11	6	18	4
	Sunderland Royal Hospital	263	245 (93%)	3	14	1	0
	The Jessop Wing, Sheffield	575	524 (91%)	20	12	18	1
	The Royal London Hospital	381	317 (83%)	3	11	29	21
	University College Hospital Ω	542	542 (100%)	0	0	0	0
	University Hospital Coventry	376	318 (85%)	4	13	15	26
	University Hospital Of North Staffordshire	372	359 (97%)	0	0	13	0
	University Hospital Of North Tees	262	201 (77%)	3	37	8	13
	University Hospital Of Wales	326	246 (75%)	10	25	17	28
	William Harvey Hospital	274	206 (75%)	2	16	41	9
	Wrexham Maelor Hospital	177	104 (59%)	4	16	7	46
NICU Total		**21109**	**17783 (84%)**	**669 (3%)**	**973 (5%)**	**756 (4%)**	**928 (4%)**
Total		**50757**	**42807 (84%)**	**1386**	**2273**	**1555**	**2736**

NNAP, 1 January - 31 December 2013

Ω indicates no missing consultation records and all babies achieving the NNAP standard.

 # Indicates units with less than 90% complete data who were deemed 'non participant' in the outlier analysis

Outlier analysis

1. Participating NNU for outlier analysis

We initially identified 50,757 babies in 176 NNU for inclusion in the outlier analysis. We excluded NNU where more than 10% of babies had no consultation time records. We also excluded NNU with fewer than 10 babies requiring a consultation, and NNU that did not submit a full year of data. This left 133 participating NNU and 40,515 babies included in the outlier analysis. There were 39 NNU including 9,098 babies that did not provide sufficient data to participate in the outlier analysis – these 'non participant' NNU are indicated in table 5.4. In the participating NNU, 91% of babies with consultation time records had a consultation within 24 hours of admission, in accordance with the NNAP standard.

2. Results of outlier analysis

The main outlier analysis was based on complete data in participating NNU – babies with missing data were excluded. We used a staged methodology to identify NNU where the rates of consultation within 24 hours of admission were unusually low. As in previous NNAP reports, we chose the thresholds 0.025 and 0.001 to flag NNU with unusually low values. The lower thresholds demarcate the consultation rates where the probabilities are 0.025 and 0.001 of seeing a NNU fall below these levels when it is truly consistent with the rate in the population of usual NNU. We also adjusted the thresholds for multiple testing. We present the results of the outlier analysis using a funnel plot (Figure 5).

NNU below threshold: We identified one NNU with an unusually low proportion of consultations within 24 hours of admission. This NNU was below the 0.025 threshold. As a sensitivity analysis we assessed the potential effect of missing values for this NNU and discovered that, even if the babies with missing consultation records had all achieved the NNAP standard, this NNU would remain below the 0.025 threshold. This unit was contacted about potential outlier status, and had an opportunity to review the accuracy of its data prior to the report's publication. Further details on the data outlier analysis process can be found on page 170 of this report.

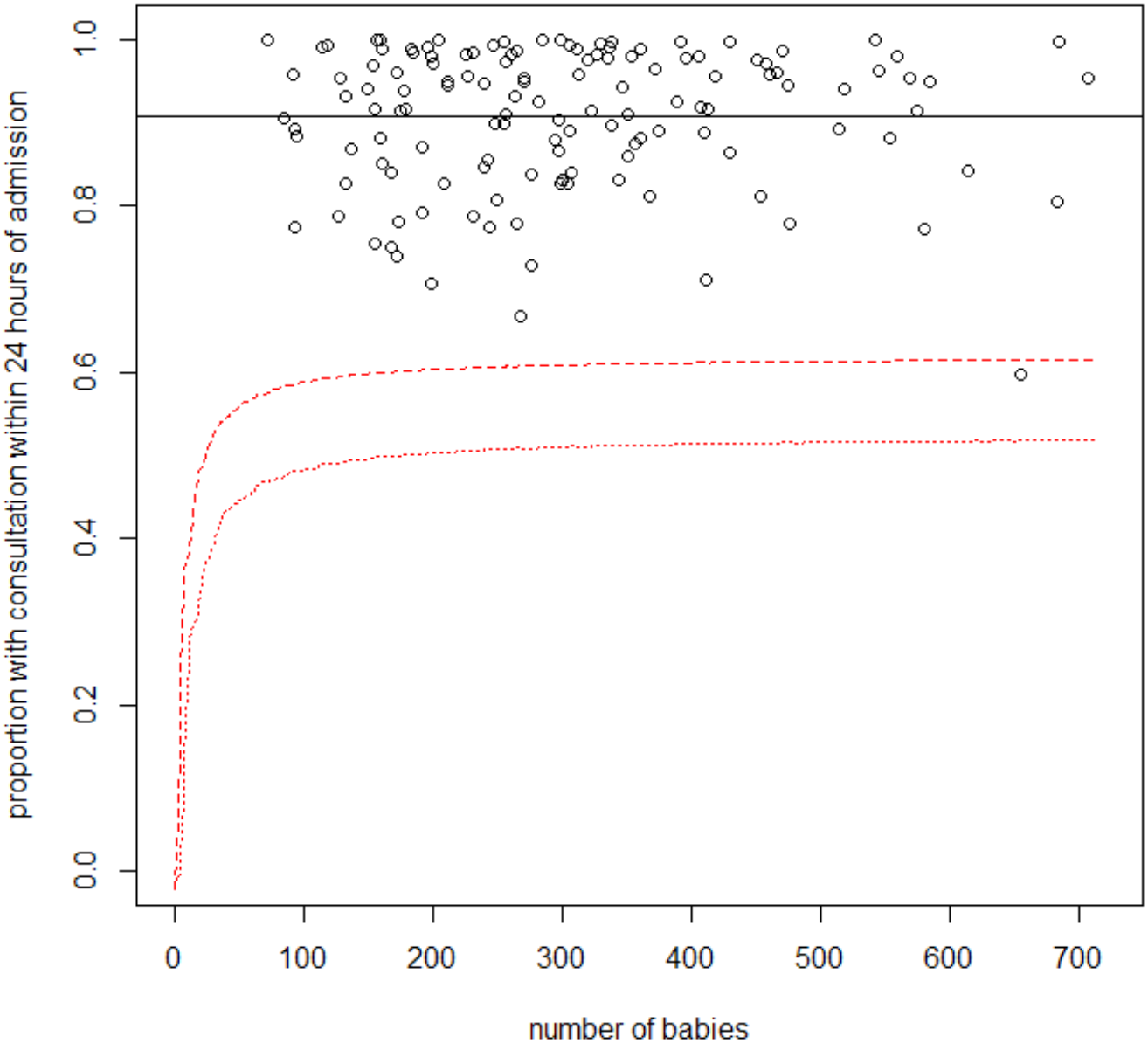
Sensitivity analysis for NNU above threshold with missing consultation records: We also checked if NNU close to but above the 0.025 threshold that had no record of consultation for some babies would fall below the threshold in the worst case scenario that all their missing values indicated their consultation time did not achieve the NNAP criteria. No NNU would fall below the 0.025 threshold under this worst case scenario.

Good performance: There were seven NNU with no missing consultation records and all babies achieving the NNAP standard. These are indicated in table 5.4.

Figure 5

Funnel plot for proportion of babies with consultation time records whose parents had a consultation that achieved the NNAP standard.

Thresholds are 0.001 and 0.025 limits adjusted for multiple testing.



Question 6

Are all babies who require transfer out of a unit kept within their own network, except where clinical reasons dictate otherwise?

Standard: >90% of transfers within the baby's first network of care

Source of Standard: NNAP Board

Results

There were a total of **80,000** babies eligible for inclusion in the NNAP 2013 audit. Of these babies, **214** have been excluded from this question as their complete episodic data, including their first episode of care, was not available for analysis. This analysis was conducted using the remaining **79,786** babies who had complete episodic data.

From these **79,786** babies, there were a total of **11,020** transfers involving **7,409** babies. This means that **9%** of babies experienced at least one transfer during their time in neonatal care. Of these transfers **81%** were within the first known network of care and **19%** were to another neonatal network. Please note that NNAP have not determined which babies were born within their 'own' network. Instead the analysis was based on the number of babies who were transferred between different NNU, and the neonatal networks to which those units belonged. A transfer within network is one where the baby is transferred to a hospital within the first known network of care. Conversely, a transfer outside a neonatal network is one where a baby is transferred to a NNU that did not belong to the first network of care.

Table 6.1

Transfer of babies out of network of first care by provider of first admission for babies discharged in 2013.

Neonatal network	Eligible babies	Number of eligible babies transferred (as % of eligible babies)	Total number of transfers for these babies	Transfers within network (as % of all transfers)	Transfers outside of network (as % of all transfers)	REASON FOR TRANSFER OUT OF NETWORK			
						Cardiac care	Surgical care	Other* reason	Unknown
Bedfordshire and Hertfordshire	3162	182 (6%)	289	202 (70%)	87 (30%)	3	32	52	1
Cheshire and Merseyside	2900	175 (6%)	236	196 (83%)	40 (17%)	0	3	37	0
Eastern	5415	394 (7%)	572	499 (87%)	73 (13%)	3	8	62	0
Greater Manchester	3159	417 (13%)	636	578 (91%)	58 (9%)	1	3	54	0
Kent	2922	252 (9%)	437	309 (71%)	128 (29%)	10	55	63	0
Lancashire and South Cumbria	1529	128 (8%)	203	134 (66%)	69 (34%)	1	30	38	0
London - North Central	3441	369 (11%)	515	339 (66%)	176 (34%)	4	16	156	0
London - North East	3661	528 (14%)	806	688 (85%)	118 (15%)	8	19	91	0
London - North West	2548	337 (13%)	520	400 (77%)	120 (23%)	2	7	111	1
London - South East	2027	252 (12%)	376	269 (72%)	107 (28%)	1	7	99	0
London - South West	3392	200 (6%)	277	195 (70%)	82 (30%)	0	7	75	0
Midlands - Central	2615	306 (12%)	502	402 (80%)	100 (20%)	0	9	91	0
Midlands - South West	4462	376 (8%)	504	409 (81%)	95 (19%)	0	5	90	0
North Trent	3468	296 (9%)	412	318 (77%)	94 (23%)	5	7	82	0
Northern	3255	371 (11%)	540	521 (96%)	19 (4%)	0	3	16	0
Peninsula - South West	2537	193 (8%)	274	205 (75%)	69 (25%)	0	30	39	0
South Central (North)	2482	323 (13%)	435	375 (86%)	60 (14%)	1	3	56	0
South Central (South)	3243	346 (11%)	496	437 (88%)	59 (12%)	0	6	53	0

Neonatal network	Eligible babies	Number of eligible babies transferred (as % of eligible babies)	Total number of transfers for these babies	Transfers within network (as % of all transfers)	Transfers outside of network (as % of all transfers)	REASON FOR TRANSFER OUT OF NETWORK			
						Cardiac care	Surgical care	Other* reason	Unknown
Staffordshire, Shropshire and Black Country Newborn Network	4008	147 (4%)	207	139 (67%)	68 (33%)	0	9	59	0
Surrey and Sussex	3667	380 (10%)	586	432 (74%)	154 (26%)	12	32	110	0
Trent	2507	267 (11%)	442	350 (79%)	92 (21%)	1	5	86	0
Wales	2681	334 (12%)	505	479 (95%)	26 (5%)	2	9	15	0
Western	6522	439 (7%)	660	557 (84%)	103 (16%)	3	2	98	0
Yorkshire	4183	397 (9%)	590	545 (92%)	45 (8%)	0	3	42	0
Total	**79786**	**7409 (9%)**	**11020**	**8978 (81%)**	**2042 (19%)**	**57**	**310**	**1675**	**2**

NNAP, 1 January - 30 December 2013

**Other reasons for transfer that could be selected were 'continuing care', 'specialist care' and 'other'.*

Question 7

Are rates of normal survival at two years comparable in similar babies from similar neonatal units?

Standard: 100% of babies with data entered

Analysis: (a) number of babies with some/all health data entered
(b) number of babies lost to follow up
(c) number of babies who died after discharge
(d) number of babies with no data entered
(e) number of babies classified as mildly/moderately/severely impaired

Source of Standard: NNAP Board

NNAP audited the number of eligible babies born at a gestational age of <30 weeks for whom a two-year (corrected post term) health status follow up has been partially or fully completed. Follow up data were available up to March 2014, and babies born during the 12-month period of July 2010 to June 2011 were selected, as these babies could have been expected to have had a follow-up appointment by the end of 2013.

Classifying impairment:

The analyses of health data are based on the following question groups from the TPRG/SEND/NNAP two-year corrected age outcome form, as can be seen in Appendix D.

- **Neurodevelopment:** 1. Neuromotor, 6. Neurology, 8. Development, 9. Neurosensory, 10. Communication.
- **Respiratory:** 3. Respiratory and cardiovascular system.
- **Gastro-intestinal:** 4. Gastro-intestinal tract.

Data from developmental tests (including Bailey III, Griffiths) are not used in this analysis.

Impairment was defined using data items from the specified TPRG/SEND/NNAP two-year corrected age outcome form as follows:

- At least one of the bold* items was marked 'yes' = severe impairment
- At least one of the non-bold items marked yes and all bold items marked 'no' = mild-moderate impairment
- All items marked 'no' = no impairment
- Missing data do not count as a 'no', therefore complete data entry is required to identify babies as having no impairment.
- One of the questions on BadgerNet which does not feature on the paper form is 'Is development normal (<3 months delay)?' This question was not used to identify babies with no impairment, but if the answer was 'yes' and the other related questions ('Is there mild delay [3-6 months delay]?', 'Is there moderate delay [6-12 months delay]?' and 'Is there severe delay [>12 months delay]?') were left blank, it was assumed that the answer to these three questions was 'no'.

*The bold items associated with each analysis are:

Neurodevelopment

1.c. Is this child unable to walk without assistance?
1.e. Is this child unable to sit?
1.h. Is this child unable to use hands (i.e. to feed)?
6.c. Has the child had >1 seizure per month despite treatment?
8.c. Is the child's development >12 months behind corrected age?
9.c. Does this child have hearing impairment not correctable with aids?
9.f. Is this child blind or sees light only?
10.c. Does this child have <5 meaningful words, vocalisations or signs?
10.e. Is the child unable to understand words or signs?

Respiratory and CVS system

3.b. Does child require supplemental oxygen or other respiratory support?

Gastro-intestinal Tract

4.c. Does this child require TPN, NG or PEG feeding?

Results

Table 7.1 shows that there were 3,488 babies <30 weeks gestation born between July 2010 and June 2011 who survived and were discharged from a NNU to home, to a ward or to foster care.

a) 44% had any health data entered
b) 10% were lost to follow up or were not assessed for other reasons
c) 10 babies (0.3%) were reported to have died after discharge
d) 45% of babies had no follow-up data entered
e) Of the 1,551 babies with health data entered, 44% had no neurodevelopmental impairment, 17% had mild/moderate impairment, 16% had severe impairment and 23% had insufficient data to determine the impairment category.

Table 7.1
Final discharge status of babies born <30 weeks gestation between July 2010 and June 2011 and who were admitted to neonatal care.

Discharge Status	Number of babies <30 weeks	As % of all
Discharged to home, ward or foster care	3488	80%
Died	712	16%
Transferred	151	3%
Unknown	10	<1%

NNAP, infants born 1 July 2010 - 30 June 2011

Table 7.2

Neurodevelopmental outcomes and health data completeness from two-year (corrected post term) health follow up recorded by neonatal network, babies born <30 weeks gestation between July 2010 and June 2011 who survived to discharge from neonatal care.

Neonatal network of birth	Eligible babies	SOME HEALTH DATA ENTERED				NO HEALTH DATA ENTERED			
		Impairment not determinable	No impairment	Mild/ moderate impairment	Severe impairment	Lost to follow up	Not assessed for other reason	Died post discharge	No data entered at all
Bedfordshire and Hertfordshire	110	31	24	4	6	0	8	0	37
Cheshire and Merseyside	92	5	28	10	16	0	9	0	24
Eastern	191	14	31	12	5	2	21	0	106
Greater Manchester	196	20	37	9	13	6	17	2	92
Kent	104	10	25	7	8	0	18	0	36
Lancashire and South Cumbria	111	6	15	13	6	1	9	0	61
London - North Central	127	14	46	16	19	0	8	0	24
London - North East	244	11	30	10	20	1	3	0	169
London - North West	220	17	42	17	8	1	10	0	125
London - South East	146	11	33	19	14	0	5	0	64
London - South West	93	20	18	13	6	3	4	0	29
Midlands - Central	78	3	12	4	3	0	28	1	27
Midlands - South West	167	6	33	12	4	1	9	1	101
Midlands North Staffordshire, Shropshire and Black Country Newborn Network	144	34	16	10	9	0	23	1	51
North Trent	183	20	36	20	12	1	10	0	84
Northern	188	9	32	12	19	0	13	1	102
Peninsula - South West	65	8	18	9	8	1	1	0	20
South Central (North)	149	27	31	13	14	4	38	2	20
South Central (South)	197	32	60	21	14	0	20	0	50
Surrey and Sussex	142	13	14	16	11	1	6	0	81

Neonatal network of birth	Eligible babies	SOME HEALTH DATA ENTERED				NO HEALTH DATA ENTERED			
		Impairment not determinable	No impairment	Mild/ moderate impairment	Severe impairment	Lost to follow up	Not assessed for other reason	Died post discharge	No data entered at all
Trent	118	2	34	2	10	1	9	0	60
Western	164	10	22	6	12	0	31	0	83
Yorkshire	184	19	35	11	16	8	9	2	84
Home	33	4	0	4	1	0	0	0	24
Non NHS England and Wales	12	1	2	0	0	0	1	0	8
Unknown	30	3	2	0	1	0	0	0	24
Total	**3488**	**350**	**676**	**270**	**255**	**31**	**310**	**10**	**1586**

NNAP, infants born 1 July 2010 - 30 June 2011

Table 7.3

Neurodevelopmental outcomes and health data completeness from two-year (corrected post term) health follow up recorded by NNU of birth, babies born <30 weeks gestation between July 2010 and June 2011 who survived to discharge from neonatal care

NNU level	Place of birth	Eligible babies	SOME HEALTH DATA ENTERED				NO HEALTH DATA ENTERED			
			Impairment not determinable	No impairment	Mild/ moderate impairment	Severe impairment	Lost to follow up	Not assessed for other reason	Died post discharge	No data entered at all
-	Other*	75	8	4	4	2	0	1	0	56
SCU	Alexandra Hospital	1	0	0	0	0	0	0	0	1
	Bassetlaw District General Hospital	3	0	0	0	0	0	0	0	3
	Bedford Hospital	10	5	0	0	0	0	5	0	0
	Chase Farm Hospital	2	0	1	0	0	0	1	0	0
	Conquest Hospital	1	0	0	0	0	0	0	0	1
	Darent Valley Hospital	7	0	2	1	0	0	2	0	2
	Darlington Memorial Hospital	8	1	0	0	0	0	0	0	7
	Dewsbury and District Hospital	11	6	1	0	1	2	1	0	0
	Ealing Hospital	11	0	1	0	0	0	0	0	10
	Eastbourne District General Hospital	2	0	0	1	0	0	0	0	1
	Epsom General Hospital	3	3	0	0	0	0	0	0	0
	Frimley Park Hospital	13	5	0	0	0	0	0	0	8
	George Eliot Hospital	8	2	0	0	0	0	4	0	2
	Good Hope Hospital	9	0	0	0	0	1	0	1	7
	Harrogate District Hospital	2	0	0	0	0	0	0	0	2
	Hereford County Hospital	4	0	0	0	0	0	0	0	4
	Hinchingbrooke Hospital	11	0	3	2	0	0	0	0	6
	James Paget Hospital	10	0	0	0	0	0	0	0	10
	King George Hospital	2	0	0	0	0	0	0	0	2

NNU level	Place of birth	Eligible babies	SOME HEALTH DATA ENTERED				NO HEALTH DATA ENTERED			
			Impairment not determinable	No impairment	Mild/ moderate impairment	Severe impairment	Lost to follow up	Not assessed for other reason	Died post discharge	No data entered at all
	King's Mill Hospital	9	0	1	0	1	0	0	0	7
	Maidstone General Hospital	3	1	0	0	0	0	1	0	1
	North Devon District Hospital	3	0	0	0	0	0	0	0	3
	North Manchester General Hospital	9	0	0	0	1	0	0	0	8
	Oxford University Hospitals, Horton Hospital	2	0	0	0	1	0	1	0	0
	Pilgrim Hospital	5	0	0	0	1	0	4	0	0
	Princess Royal Hospital	1	0	1	0	0	0	0	0	0
	Princess Royal University Hospital	6	0	0	0	0	0	1	0	5
	Queen Elizabeth Hospital, Gateshead	8	0	0	0	1	0	1	0	6
	Queen Elizabeth Ii Hospital	1	1	0	0	0	0	0	0	0
	Queen Elizabeth The Queen Mother Hospital	2	1	0	0	0	0	0	0	1
	Royal Surrey County Hospital	7	2	0	0	0	0	0	0	5
	Sandwell General Hospital	1	0	0	0	0	0	0	0	1
	Scarborough General Hospital	3	0	0	0	0	0	0	0	3
	South Tyneside District Hospital	2	0	0	0	0	0	1	0	1
	Staffordshire General Hospital	1	1	0	0	0	0	0	0	0
	The Royal Free Hospital	7	1	1	0	1	0	0	0	4
	Torbay Hospital	3	0	0	0	0	0	0	0	3
	University Hospital Of North Durham	4	0	0	0	0	0	0	0	4
	Wansbeck General Hospital	1	0	1	0	0	0	0	0	0

NNU level	Place of birth	Eligible babies	SOME HEALTH DATA ENTERED				NO HEALTH DATA ENTERED			
			Impairment not determinable	No impairment	Mild/ moderate impairment	Severe impairment	Lost to follow up	Not assessed for other reason	Died post discharge	No data entered at all
	Warwick Hospital	6	0	1	0	1	0	2	0	2
	West Cumberland Hospital	2	0	0	0	0	0	0	0	2
	West Middlesex University Hospital	18	4	6	3	0	0	0	0	5
	West Suffolk Hospital	9	0	3	0	0	0	0	0	6
	Worthing Hospital	11	1	1	4	3	1	1	0	0
	Yeovil District Hospital	1	0	0	0	0	0	1	0	0
LNU	Airedale General Hospital	9	0	1	2	0	0	0	0	6
	Barnet Hospital	28	5	10	5	4	0	0	0	4
	Barnsley District General Hospital	12	0	1	0	0	0	0	0	11
	Basildon Hospital	19	0	0	0	0	0	1	0	18
	Basingstoke and North Hampshire Hospital	5	1	1	0	0	0	1	0	2
	Broomfield Hospital	14	1	5	1	0	0	2	0	5
	Calderdale Royal Hospital	22	1	5	3	7	1	4	1	0
	Chesterfield and North Derbyshire Royal Hospital	15	0	6	0	2	0	1	0	6
	City Hospital	41	2	15	6	2	0	8	0	8
	Colchester General Hospital	13	0	1	2	0	1	2	0	7
	Countess Of Chester Hospital	13	1	6	0	4	0	0	0	2
	Croydon University Hospital	22	4	4	3	1	0	0	0	10
	Diana Princess Of Wales Hospital	21	10	7	2	0	0	2	0	0
	Doncaster Royal Infirmary	23	0	4	1	2	0	0	0	16
	Dorset County Hospital	6	0	1	0	0	0	0	0	5
	East Surrey Hospital	14	1	1	3	4	0	1	0	4

NNU level	Place of birth	Eligible babies	SOME HEALTH DATA ENTERED				NO HEALTH DATA ENTERED			
			Impairment not determinable	No impairment	Mild/ moderate impairment	Severe impairment	Lost to follow up	Not assessed for other reason	Died post discharge	No data entered at all
	Fairfield General Hospital	3	0	0	0	0	0	0	0	3
	Gloucestershire Royal Hospital	24	1	0	0	0	0	0	0	23
	Great Western Hospital	27	0	0	0	0	0	2	0	25
	Hillingdon Hospital	26	0	0	0	0	0	0	0	26
	Ipswich Hospital	16	0	0	0	0	0	0	0	16
	Kettering General Hospital	17	0	2	0	0	0	0	0	15
	Kingston Hospital	9	0	1	0	0	0	0	0	8
	Leighton Hospital	13	1	2	2	3	0	3	0	2
	Lincoln County Hospital	18	0	0	0	0	0	2	0	16
	Lister Hospital	24	12	6	0	0	0	0	0	6
	Macclesfield District General Hospital	4	0	2	1	0	0	0	0	1
	Manor Hospital	28	4	8	7	3	0	3	0	3
	Milton Keynes Foundation Trust Hospital	18	0	0	0	0	0	2	0	16
	Newham General Hospital	34	0	0	0	0	0	0	0	34
	North Middlesex University Hospital	16	0	2	2	2	0	0	0	10
	Northwick Park Hospital	30	3	11	6	4	0	3	0	3
	Ormskirk District General Hospital	3	0	0	0	0	0	0	0	3
	Peterborough City Hospital	20	1	0	0	0	0	0	0	19
	Pinderfields General Hospital	12	0	4	1	2	2	3	0	0
	Poole Hospital NHS Foundation Trust	14	3	6	2	3	0	0	0	0
	Princess Alexandra Hospital	11	0	0	0	0	0	0	0	11

NNU level	Place of birth	Eligible babies	SOME HEALTH DATA ENTERED				NO HEALTH DATA ENTERED			
			Impairment not determinable	No impairment	Mild/ moderate impairment	Severe impairment	Lost to follow up	Not assessed for other reason	Died post discharge	No data entered at all
	Queen Elizabeth Hospital, King's Lynn	13	0	7	1	1	0	0	0	4
	Queen Elizabeth Hospital, Woolwich	25	1	1	1	1	0	3	0	18
	Queen's Hospital, Burton On Trent	3	1	0	0	0	0	1	0	1
	Queen's Hospital, Romford	36	3	1	0	1	0	0	0	31
	Rochdale Infirmary	5	0	0	0	0	0	0	0	5
	Rotherham District General Hospital	12	1	3	4	2	0	2	0	0
	Royal Albert Edward Infirmary	17	3	2	0	1	2	4	0	5
	Royal Berkshire Hospital	31	7	7	3	7	2	4	1	0
	Royal Cornwall Hospital	10	1	7	1	1	0	0	0	0
	Royal Derby Hospital	28	2	2	0	0	0	2	0	22
	Royal Devon and Exeter Hospital	16	3	4	1	0	1	1	0	6
	Royal Hampshire County Hospital	12	5	2	1	3	0	0	0	1
	Royal Lancaster Infirmary	7	0	3	3	0	0	0	0	1
	Royal Shrewsbury Hospital	26	3	3	1	1	0	0	0	18
	Royal United Hospital	12	2	4	2	2	0	0	0	2
	Russells Hall Hospital	19	5	3	1	2	0	1	0	7
	Salisbury District Hospital	7	4	1	1	0	0	1	0	0
	Scunthorpe General Hospital	10	0	1	0	1	0	0	0	8
	Southend Hospital	12	1	4	0	5	0	0	0	2
	St Helier Hospital	19	3	7	1	1	2	4	0	1
	St Mary's Hospital, IOW	6	0	0	0	0	0	0	0	6

NNU level	Place of birth	Eligible babies	SOME HEALTH DATA ENTERED				NO HEALTH DATA ENTERED			
			Impairment not determinable	No impairment	Mild/ moderate impairment	Severe impairment	Lost to follow up	Not assessed for other reason	Died post discharge	No data entered at all
	St Mary's Hospital, London	48	6	7	0	0	1	1	0	33
	St Richard's Hospital	5	0	2	1	0	0	1	0	1
	Stepping Hill Hospital	16	1	12	1	0	0	1	1	0
	Stoke Mandeville Hospital	14	3	4	3	2	1	0	0	1
	Tameside General Hospital	14	3	4	0	3	0	4	0	0
	Taunton and Somerset Hospital	23	3	7	2	1	0	4	0	6
	Tunbridge Wells Hospital	18	0	0	0	0	0	0	0	18
	University Hospital Lewisham	26	0	5	2	1	0	0	0	18
	University Hospital Of South Manchester	32	5	11	2	2	0	4	1	7
	Victoria Hospital, Blackpool	10	0	0	0	0	0	3	0	7
	Warrington Hospital	15	2	5	2	4	0	2	0	0
	Watford General Hospital	16	2	5	2	2	0	0	0	5
	Wexham Park Hospital	36	4	14	5	1	1	10	1	0
	Whipps Cross University Hospital	12	1	5	1	1	1	0	0	3
	Whiston Hospital	10	0	6	1	3	0	0	0	0
	Whittington Hospital	20	4	7	0	3	0	0	0	6
	Worcestershire Royal Hospital	24	1	6	2	1	0	0	0	14
	York District Hospital	2	0	1	0	0	0	0	0	1
NICU	Arrowe Park Hospital	34	1	7	4	2	0	4	0	16
	Birmingham Heartlands Hospital	33	0	7	3	1	0	0	0	22
	Birmingham Women's Hospital	54	3	5	1	0	0	1	0	44
	Bradford Royal Infirmary	30	8	12	2	3	3	1	1	0

NNU level	Place of birth	Eligible babies	SOME HEALTH DATA ENTERED				NO HEALTH DATA ENTERED			
			Impairment not determinable	No impairment	Mild/ moderate impairment	Severe impairment	Lost to follow up	Not assessed for other reason	Died post discharge	No data entered at all
	Chelsea and Westminster Hospital	31	0	4	7	2	0	0	0	18
	Derriford Hospital	33	4	7	7	7	0	0	0	8
	Guy's and St Thomas' Hospital	50	2	16	7	4	0	1	0	20
	Homerton Hospital	69	6	11	5	8	0	1	0	38
	Hull Royal Infirmary	32	0	2	0	1	0	0	0	29
	James Cook University Hospital	46	0	4	1	7	0	0	0	34
	King's College Hospital	38	8	11	9	8	0	0	0	2
	Lancashire Women and Newborn Centre	51	3	1	2	3	0	1	0	41
	Leeds Neonatal Service	60	4	9	3	2	0	0	0	42
	Luton and Dunstable Hospital	59	11	13	2	4	0	3	0	26
	Medway Maritime Hospital	41	2	8	4	7	0	15	0	5
	New Cross Hospital	46	20	0	0	2	0	3	0	21
	Norfolk and Norwich University Hospital	31	11	1	0	2	1	16	0	0
	North Bristol NHS Trust (Southmead)	51	4	11	2	8	0	24	0	2
	Nottingham City Hospital	28	0	17	2	4	0	1	0	4
	Nottingham University Hospital (QMC)	30	0	14	0	4	1	0	0	11
	Oxford University Hospitals, John Radcliffe Hospital	47	13	6	2	3	0	21	0	2
	Princess Anne Hospital	60	16	13	4	2	0	14	0	11
	Queen Alexandra Hospital	82	3	34	12	6	0	3	0	24

NNU level	Place of birth	Eligible babies	SOME HEALTH DATA ENTERED				NO HEALTH DATA ENTERED			
			Impairment not determinable	No impairment	Mild/ moderate impairment	Severe impairment	Lost to follow up	Not assessed for other reason	Died post discharge	No data entered at all
	Queen Charlotte's Hospital	55	4	13	1	2	0	6	0	29
	Rosie Maternity Hospital, Addenbrookes	43	1	11	6	2	0	1	0	22
	Royal Bolton Hospital	24	2	2	0	1	0	0	0	19
	Royal Oldham Hospital	13	1	2	0	2	4	2	0	2
	Royal Preston Hospital	43	3	11	8	3	1	5	0	12
	Royal Sussex County Hospital	42	0	8	7	3	0	2	0	22
	Royal Victoria Infirmary	58	5	18	9	8	0	1	1	16
	Salford Royal Hospital	18	0	1	2	1	0	0	0	14
	St George's Hospital	40	10	6	9	4	1	0	0	10
	St Mary's Hospital, Manchester	45	5	3	4	2	0	2	0	29
	St Michael's Hospital	26	0	0	0	1	0	0	0	25
	St Peter's Hospital	51	4	3	1	1	0	2	0	40
	Sunderland Royal Hospital	28	0	6	0	0	0	6	0	16
	The Jessop Wing, Sheffield	87	9	14	13	5	1	5	0	40
	The Royal London Hospital	43	0	6	2	3	0	1	0	31
	The Royal London Hospital - Constance Green	1	0	1	0	0	0	0	0	0
	University College Hospital	70	4	27	11	11	0	7	0	10
	University Hospital Coventry	44	0	9	4	2	0	21	1	7
	University Hospital Of North Staffordshire	24	1	2	1	1	0	16	1	2
	University Hospital Of North Tees	31	3	3	2	3	0	4	0	16
	William Harvey Hospital	33	6	15	2	1	0	0	0	9

NNAP, infants born 1 July 2010 - 30 June 2011

Table 7.4

Respiratory and gastro-intestinal outcomes and health from two-year (corrected post term) health follow up recorded by neonatal network, babies born <30 weeks gestation between July 2010 and June 2011 who survived to discharge from neonatal care.

Neonatal network of birth	Eligible babies with health data entered	RESPIRATORY				GASTRO-INTESTINAL			
		Impairment not determinable	No impairment	Mild/ moderate impairment	Severe impairment	Impairment not determinable	No impairment	Mild/ moderate impairment	Severe impairment
Bedfordshire and Hertfordshire	65	10	55	0	0	11	52	1	1
Cheshire and Merseyside	59	3	54	1	1	3	51	5	0
Eastern	62	5	56	0	1	6	54	0	2
Greater Manchester	79	3	74	0	2	7	69	2	1
Kent	50	8	38	1	3	7	39	2	2
Lancashire and South Cumbria	40	5	34	1	0	6	34	0	0
London - North Central	95	2	92	0	1	2	89	3	1
London - North East	71	4	63	1	3	2	63	2	4
London - North West	84	10	73	1	0	9	73	1	1
London - South East	77	6	68	0	3	6	66	2	3
London - South West	57	12	42	2	1	12	43	1	1
Midlands - Central	22	6	13	2	1	5	16	1	0
Midlands - South West	55	2	52	1	0	4	49	1	1
Midlands North Staffordshire, Shropshire and Black Country Newborn Network	69	5	63	1	0	4	62	1	2
North Trent	88	14	72	0	2	14	70	0	4
Northern	72	6	61	2	3	4	66	0	2
Peninsula - South West	43	2	41	0	0	3	37	2	1
South Central (North)	85	16	68	1	0	25	58	2	0

Neonatal network of birth	Eligible babies with health data entered	RESPIRATORY				GASTRO-INTESTINAL			
		Impairment not determinable	No impairment	Mild/ moderate impairment	Severe impairment	Impairment not determinable	No impairment	Mild/ moderate impairment	Severe impairment
South Central (South)	127	12	112	0	3	16	109	1	1
Surrey and Sussex	54	5	48	1	0	6	47	0	1
Trent	48	3	45	0	0	0	46	2	0
Western	50	6	43	0	1	5	43	1	1
Yorkshire	81	4	77	0	0	9	67	1	4
Home	9	2	6	0	1	2	7	0	0
Non NHS England and Wales	3	0	3	0	0	0	3	0	0
Unknown	6	3	3	0	0	4	2	0	0
Total	**1551**	**154**	**1356**	**15**	**26**	**172**	**1315**	**31**	**33**

NNAP, infants born 1 July 2010 - 30 June 2011

Question 8

What percentage of babies admitted to a neonatal unit have:

(a) One or more episodes of a pure growth of a pathogen from blood?
(b) One or more episode of a pure growth of a pathogen from CSF?
(c) Either a pure growth of a skin commensal or a mixed growth with ≥3 clinical signs at the time of blood sampling?

Standard: Standard not set, benchmarking at present.

Source of Standard: NNAP Board

Results

There were **90,287** admissions and **79,165** babies in 175 NNU eligible for the audit. A total of **30,311** blood and CSF cultures were recorded for these babies; pathogen results, including 'no growth' were entered for **82%** of cultures.

The results for each section of the analyses were:

(a) **Less than 1%** of all babies had a positive blood culture result recorded with **0.6% with** a pure growth of a pathogen.
(b) **0.01%** of all babies had a positive CSF culture result recorded with a pure growth of a pathogen.
(c) For blood cultures, **0.09%** of babies had a growth of a skin commensal with three or more predefined clinical signs, and **0.01%** a mixed growth with three or more predefined clinical signs.s.

Table 8.1
Completeness of available culture data by gestational age.

Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
		Number of blood cultures	Number of blood cultures with pathogens entered (% of blood cultures)	Number of CSF cultures	Number of CSF cultures with pathogens entered (% of CSF cultures)
Missing	12	1	1 (100%)	0	0
<= 27 weeks	2223	4233	3746 (88%)	316	286 (91%)
28-31 weeks	5187	4284	3689 (86%)	366	336 (92%)
32-36 weeks	24904	7462	6025 (81%)	662	554 (84%)
>= 37 weeks	46839	10455	8161 (78%)	2532	2082 (82%)
Total	**79165**	**26435**	**21622 (82%)**	**3876**	**3258 (84%)**

NNAP, 1 January - 31 December 2013

Table 8.2

Completeness of available culture data by neonatal unit and gestational age.

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
SCU	Alexandra Hospital	< 32 weeks	16	2	1 (50%)	0	0 (0%)
		>= 32 weeks	196	18	4 (22%)	1	1 (100%)
	Bassetlaw District General Hospital	< 32 weeks	11	3	3 (100%)	0	0 (0%)
		>= 32 weeks	116	20	16 (80%)	4	4 (100%)
	Bedford Hospital	< 32 weeks	23	13	13 (100%)	0	0 (0%)
		>= 32 weeks	331	124	124 (100%)	22	22 (100%)
	Bronglais General Hospital	>= 32 weeks	11	5	0 (0%)	0	0 (0%)
	Chase Farm Hospital	< 32 weeks	20	2	1 (50%)	0	0 (0%)
		>= 32 weeks	193	13	4 (31%)	4	4 (100%)
	Conquest Hospital	< 32 weeks	24	9	4 (44%)	0	0 (0%)
		>= 32 weeks	273	44	15 (34%)	9	2 (22%)
	Cumberland Infirmary	< 32 weeks	16	11	6 (55%)	0	0 (0%)
		>= 32 weeks	202	38	25 (66%)	0	0 (0%)
	Darent Valley Hospital	< 32 weeks	55	9	4 (44%)	1	1 (100%)
		>= 32 weeks	639	149	104 (70%)	15	9 (60%)
	Darlington Memorial Hospital	< 32 weeks	28	11	11 (100%)	1	1 (100%)
		>= 32 weeks	374	91	83 (91%)	20	19 (95%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Dewsbury & District Hospital	< 32 weeks	31	23	22 (96%)	0	0 (0%)
		>= 32 weeks	218	80	76 (95%)	9	9 (100%)
	Ealing Hospital	< 32 weeks	41	14	10 (71%)	0	0 (0%)
		>= 32 weeks	196	35	26 (74%)	4	3 (75%)
	Eastbourne District General Hospital	< 32 weeks	11	2	0 (0%)	0	0 (0%)
		>= 32 weeks	63	7	0 (0%)	0	0 (0%)
	Epsom General Hospital	< 32 weeks	11	4	4 (100%)	2	2 (100%)
		>= 32 weeks	162	30	30 (100%)	20	20 (100%)
	Frimley Park Hospital	< 32 weeks	50	42	39 (93%)	0	0 (0%)
		>= 32 weeks	581	186	177 (95%)	10	10 (100%)
	Furness General Hospital	< 32 weeks	10	2	0 (0%)	0	0 (0%)
		>= 32 weeks	87	12	1 (8%)	0	0 (0%)
	George Eliot Hospital	< 32 weeks	26	9	9 (100%)	0	0 (0%)
		>= 32 weeks	151	33	27 (82%)	1	0 (0%)
	Good Hope Hospital	< 32 weeks	30	12	11 (92%)	1	1 (100%)
		>= 32 weeks	549	148	139 (94%)	15	15 (100%)
	Harrogate District Hospital	< 32 weeks	18	9	7 (78%)	0	0 (0%)
		>= 32 weeks	140	17	13 (76%)	3	3 (100%)
	Hereford County Hospital	< 32 weeks	13	13	12 (92%)	0	0 (0%)
		>= 32 weeks	202	96	75 (78%)	13	13 (100%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Hinchingbrooke Hospital	< 32 weeks	23	5	5 (100%)	1	1 (100%)
		>= 32 weeks	176	45	30 (67%)	5	2 (40%)
	James Paget Hospital	< 32 weeks	21	9	7 (78%)	1	1 (100%)
		>= 32 weeks	255	68	47 (69%)	13	8 (62%)
	King George Hospital	< 32 weeks	69	3	2 (67%)	0	0 (0%)
		>= 32 weeks	116	2	1 (50%)	0	0 (0%)
	King's Mill Hospital	< 32 weeks	38	10	6 (60%)	2	2 (100%)
		>= 32 weeks	214	20	10 (50%)	3	0 (0%)
	North Devon District Hospital	< 32 weeks	10	14	14 (100%)	1	1 (100%)
		>= 32 weeks	188	94	94 (100%)	23	23 (100%)
	North Manchester General Hospital	< 32 weeks	57	8	4 (50%)	1	0 (0%)
		>= 32 weeks	348	26	9 (35%)	9	5 (56%)
	Oxford University Hospitals, Horton Hospital	< 32 weeks	13	3	3 (100%)	0	0 (0%)
		>= 32 weeks	132	41	38 (93%)	10	10 (100%)
	Pilgrim Hospital	< 32 weeks	15	5	5 (100%)	0	0 (0%)
		>= 32 weeks	289	139	135 (97%)	16	16 (100%)
	Princess Royal Hospital	< 32 weeks	34	12	8 (67%)	0	0 (0%)
		>= 32 weeks	208	80	33 (41%)	4	3 (75%)
	Princess Royal University Hospital	< 32 weeks	48	12	5 (42%)	0	0 (0%)
		>= 32 weeks	234	17	7 (41%)	4	2 (50%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Queen Elizabeth Hospital, Gateshead	< 32 weeks	26	9	6 (67%)	0	0 (0%)
		>= 32 weeks	184	19	5 (26%)	2	1 (50%)
	Queen Elizabeth The Queen Mother Hospital	< 32 weeks	18	7	5 (71%)	0	0 (0%)
		>= 32 weeks	391	72	56 (78%)	5	3 (60%)
	Royal Surrey County Hospital	< 32 weeks	29	14	3 (21%)	0	0 (0%)
		>= 32 weeks	566	53	4 (8%)	9	0 (0%)
	Scarborough General Hospital	< 32 weeks	14	6	3 (50%)	0	0 (0%)
		>= 32 weeks	164	45	35 (78%)	2	1 (50%)
	South Tyneside District Hospital	< 32 weeks	5	2	2 (100%)	0	0 (0%)
		>= 32 weeks	81	14	8 (57%)	1	1 (100%)
	Staffordshire General Hospital	< 32 weeks	15	5	5 (100%)	0	0 (0%)
		>= 32 weeks	834	80	75 (94%)	8	7 (88%)
	The Royal Free Hospital	< 32 weeks	27	2	1 (50%)	0	0 (0%)
		>= 32 weeks	315	42	15 (36%)	1	0 (0%)
	Torbay Hospital	< 32 weeks	31	16	13 (81%)	0	0 (0%)
		>= 32 weeks	274	121	107 (88%)	22	16 (73%)
	University Hospital Of North Durham	< 32 weeks	23	8	6 (75%)	0	0 (0%)
		>= 32 weeks	523	85	77 (91%)	25	25 (100%)
	Wansbeck General Hospital	< 32 weeks	20	11	3 (27%)	0	0 (0%)
		>= 32 weeks	301	90	1 (1%)	1	0 (0%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Warwick Hospital	< 32 weeks	12	5	5 (100%)	0	0 (0%)
		>= 32 weeks	292	113	110 (97%)	21	21 (100%)
	West Cumberland Hospital	Missing	1	0	0 (0%)	0	0 (0%)
		< 32 weeks	8	4	0 (0%)	0	0 (0%)
		>= 32 weeks	155	20	2 (10%)	3	1 (33%)
	West Middlesex University Hospital	< 32 weeks	51	2	1 (50%)	0	0 (0%)
		>= 32 weeks	362	16	9 (56%)	3	2 (67%)
	West Suffolk Hospital	< 32 weeks	33	11	4 (36%)	1	1 (100%)
		>= 32 weeks	321	83	42 (51%)	22	12 (55%)
	Worthing Hospital	< 32 weeks	27	6	6 (100%)	1	1 (100%)
		>= 32 weeks	454	87	87 (100%)	18	18 (100%)
	Yeovil District Hospital	< 32 weeks	10	0	0 (0%)	0	0 (0%)
		>= 32 weeks	147	16	5 (31%)	2	1 (50%)
	Ysbyty Gwynedd	< 32 weeks	17	2	2 (100%)	0	0 (0%)
		>= 32 weeks	152	17	9 (53%)	3	2 (67%)
SCU Total		Missing	1	0	0 (0%)	0	0 (0%)
		< 32 weeks	1124	381	281 (74%)	13	12 (92%)
		>= 32 weeks	12325	2651	1990 (75%)	385	314 (82%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Airedale General Hospital	< 32 weeks	29	26	26 (100%)	1	0 (0%)
		>= 32 weeks	172	65	64 (98%)	3	3 (100%)
	Barnet Hospital	< 32 weeks	78	20	17 (85%)	3	3 (100%)
		>= 32 weeks	326	38	27 (71%)	11	6 (55%)
	Barnsley District General Hospital	< 32 weeks	29	36	35 (97%)	2	2 (100%)
		>= 32 weeks	251	67	65 (97%)	29	27 (93%)
	Basildon Hospital	< 32 weeks	41	64	63 (98%)	3	3 (100%)
		>= 32 weeks	326	128	124 (97%)	27	27 (100%)
	Basingstoke & North Hampshire Hospital	< 32 weeks	28	27	5 (19%)	1	1 (100%)
		>= 32 weeks	226	111	19 (17%)	4	3 (75%)
	Broomfield Hospital	< 32 weeks	38	24	21 (88%)	5	3 (60%)
		>= 32 weeks	385	91	82 (90%)	29	26 (90%)
	Calderdale Royal Hospital	< 32 weeks	70	67	67 (100%)	5	5 (100%)
		>= 32 weeks	401	131	131 (100%)	26	26 (100%)
	Chesterfield & North Derbyshire Royal Hospital	< 32 weeks	36	47	46 (98%)	5	5 (100%)
		>= 32 weeks	273	151	150 (99%)	17	17 (100%)
	City Hospital	< 32 weeks	121	53	44 (83%)	6	6 (100%)
		>= 32 weeks	774	139	109 (78%)	46	39 (85%)
	Colchester General Hospital	< 32 weeks	44	20	13 (65%)	0	0 (0%)
		>= 32 weeks	312	88	41 (47%)	7	5 (71%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Countess Of Chester Hospital	< 32 weeks	21	20	11 (55%)	2	2 (100%)
		>= 32 weeks	417	166	90 (54%)	83	49 (59%)
	Croydon University Hospital	< 32 weeks	69	5	1 (20%)	1	1 (100%)
		>= 32 weeks	403	26	15 (58%)	2	2 (100%)
	Diana Princess Of Wales Hospital	< 32 weeks	39	32	27 (84%)	1	1 (100%)
		>= 32 weeks	763	196	184 (94%)	25	21 (84%)
	Doncaster Royal Infirmary	< 32 weeks	68	95	93 (98%)	4	4 (100%)
		>= 32 weeks	264	116	110 (95%)	27	27 (100%)
	Dorset County Hospital	< 32 weeks	21	7	6 (86%)	1	1 (100%)
		>= 32 weeks	225	82	53 (65%)	9	9 (100%)
	East Surrey Hospital	< 32 weeks	34	18	12 (67%)	1	0 (0%)
		>= 32 weeks	390	54	19 (35%)	21	5 (24%)
	Glangwili General Hospital	< 32 weeks	18	11	7 (64%)	0	0 (0%)
		>= 32 weeks	124	29	22 (76%)	2	2 (100%)
	Gloucestershire Royal Hospital	< 32 weeks	89	12	8 (67%)	0	0 (0%)
		>= 32 weeks	422	23	11 (48%)	3	2 (67%)
	Great Western Hospital	< 32 weeks	52	2	0 (0%)	0	0 (0%)
		>= 32 weeks	312	15	6 (40%)	1	1 (100%)
	Hillingdon Hospital	< 32 weeks	57	11	10 (91%)	1	1 (100%)
		>= 32 weeks	289	27	22 (81%)	5	5 (100%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Ipswich Hospital	< 32 weeks	47	24	23 (96%)	2	2 (100%)
		>= 32 weeks	470	116	102 (88%)	33	27 (82%)
	Kettering General Hospital	< 32 weeks	58	11	6 (55%)	2	2 (100%)
		>= 32 weeks	239	19	7 (37%)	5	2 (40%)
	Kingston Hospital	< 32 weeks	44	20	20 (100%)	3	3 (100%)
		>= 32 weeks	351	44	41 (93%)	10	10 (100%)
	Leighton Hospital	< 32 weeks	34	40	40 (100%)	23	23 (100%)
		>= 32 weeks	223	98	98 (100%)	71	71 (100%)
	Lincoln County Hospital	< 32 weeks	46	37	37 (100%)	4	4 (100%)
		>= 32 weeks	546	150	149 (99%)	23	23 (100%)
	Lister Hospital	< 32 weeks	66	58	48 (83%)	1	1 (100%)
		>= 32 weeks	840	332	192 (58%)	27	13 (48%)
	Macclesfield District General Hospital	< 32 weeks	14	9	8 (89%)	3	3 (100%)
		>= 32 weeks	105	43	42 (98%)	13	13 (100%)
	Manor Hospital	Missing	1	1	1 (100%)	0	0 (0%)
		< 32 weeks	56	54	44 (81%)	0	0 (0%)
		>= 32 weeks	481	184	143 (78%)	23	17 (74%)
	Milton Keynes Foundation Trust Hospital	< 32 weeks	46	8	4 (50%)	0	0 (0%)
		>= 32 weeks	324	36	16 (44%)	4	2 (50%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Nevill Hall Hospital	< 32 weeks	43	15	3 (20%)	0	0 (0%)
		>= 32 weeks	208	72	1 (1%)	1	0 (0%)
	Newham General Hospital	Missing	1	0	0 (0%)	0	0 (0%)
		< 32 weeks	93	24	15 (63%)	1	1 (100%)
		>= 32 weeks	387	50	17 (34%)	5	2 (40%)
	North Middlesex University Hospital	< 32 weeks	53	30	20 (67%)	1	1 (100%)
		>= 32 weeks	270	51	31 (61%)	12	9 (75%)
	Northampton General Hospital	< 32 weeks	60	71	62 (87%)	11	11 (100%)
		>= 32 weeks	267	108	88 (81%)	21	15 (71%)
	Northwick Park Hospital	Missing	1	0	0 (0%)	0	0 (0%)
		< 32 weeks	76	29	16 (55%)	2	2 (100%)
		>= 32 weeks	459	83	42 (51%)	10	4 (40%)
	Ormskirk District General Hospital	< 32 weeks	25	25	25 (100%)	1	1 (100%)
		>= 32 weeks	301	117	116 (99%)	22	22 (100%)
	Peterborough City Hospital	< 32 weeks	66	37	29 (78%)	3	3 (100%)
		>= 32 weeks	890	174	153 (88%)	47	42 (89%)
	Pinderfields General Hospital	< 32 weeks	66	58	58 (100%)	1	1 (100%)
		>= 32 weeks	257	90	84 (93%)	5	5 (100%)
	Poole Hospital Nhs Foundation Trust	< 32 weeks	51	62	62 (100%)	1	1 (100%)
		>= 32 weeks	285	143	143 (100%)	1	1 (100%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Prince Charles Hospital	< 32 weeks	27	16	10 (63%)	0	0 (0%)
		>= 32 weeks	153	73	32 (44%)	7	3 (43%)
	Princess Alexandra Hospital	< 32 weeks	43	52	52 (100%)	0	0 (0%)
		>= 32 weeks	342	164	163 (99%)	6	6 (100%)
	Princess Of Wales Hospital	Missing	1	0	0 (0%)	0	0 (0%)
		< 32 weeks	32	18	14 (78%)	5	2 (40%)
		>= 32 weeks	218	47	20 (43%)	7	3 (43%)
	Queen Elizabeth Hospital, King's Lynn	< 32 weeks	22	38	38 (100%)	0	0 (0%)
		>= 32 weeks	305	121	121 (100%)	43	43 (100%)
	Queen Elizabeth Hospital, Woolwich	< 32 weeks	68	67	65 (97%)	4	4 (100%)
		>= 32 weeks	235	158	151 (96%)	16	15 (94%)
	Queen's Hospital, Burton On Trent	Missing	1	0	0 (0%)	0	0 (0%)
		< 32 weeks	36	35	35 (100%)	2	2 (100%)
		>= 32 weeks	161	83	83 (100%)	9	9 (100%)
	Queen's Hospital, Romford	< 32 weeks	87	30	26 (87%)	1	1 (100%)
		>= 32 weeks	792	89	63 (71%)	21	15 (71%)
	Rotherham District General Hospital	< 32 weeks	34	41	41 (100%)	2	2 (100%)
		>= 32 weeks	183	111	104 (94%)	13	13 (100%)
	Royal Albert Edward Infirmary	< 32 weeks	35	33	32 (97%)	0	0 (0%)
		>= 32 weeks	253	114	114 (100%)	7	7 (100%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Royal Berkshire Hospital	< 32 weeks	53	23	18 (78%)	2	2 (100%)
		>= 32 weeks	426	133	52 (39%)	14	13 (93%)
	Royal Cornwall Hospital	< 32 weeks	42	24	19 (79%)	4	2 (50%)
		>= 32 weeks	515	190	169 (89%)	58	52 (90%)
	Royal Derby Hospital	< 32 weeks	69	52	51 (98%)	9	9 (100%)
		>= 32 weeks	337	111	94 (85%)	22	19 (86%)
	Royal Devon & Exeter Hospital	< 32 weeks	59	6	4 (67%)	0	0 (0%)
		>= 32 weeks	491	26	10 (38%)	7	4 (57%)
	Royal Glamorgan Hospital	< 32 weeks	49	47	46 (98%)	0	0 (0%)
		>= 32 weeks	220	70	67 (96%)	4	2 (50%)
	Royal Hampshire County Hospital	< 32 weeks	25	8	1 (13%)	1	0 (0%)
		>= 32 weeks	317	38	0 (0%)	1	0 (0%)
	Royal Lancaster Infirmary	< 32 weeks	28	9	5 (56%)	1	0 (0%)
		>= 32 weeks	132	40	22 (55%)	4	3 (75%)
	Royal Shrewsbury Hospital	< 32 weeks	44	113	110 (97%)	14	13 (93%)
		>= 32 weeks	746	226	216 (96%)	46	45 (98%)
	Royal United Hospital	< 32 weeks	53	10	5 (50%)	1	1 (100%)
		>= 32 weeks	494	30	18 (60%)	3	2 (67%)
	Russells Hall Hospital	< 32 weeks	46	18	8 (44%)	0	0 (0%)
		>= 32 weeks	539	89	41 (46%)	5	4 (80%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Salisbury District Hospital	< 32 weeks	30	19	18 (95%)	0	0 (0%)
		>= 32 weeks	209	90	87 (97%)	6	6 (100%)
	Scunthorpe General Hospital	< 32 weeks	18	16	13 (81%)	0	0 (0%)
		>= 32 weeks	660	79	39 (49%)	9	4 (44%)
	Southend Hospital	< 32 weeks	39	37	37 (100%)	1	0 (0%)
		>= 32 weeks	381	108	103 (95%)	16	16 (100%)
	St Helier Hospital	< 32 weeks	52	52	52 (100%)	15	15 (100%)
		>= 32 weeks	418	132	132 (100%)	35	35 (100%)
	St Mary's Hospital, Iow	< 32 weeks	13	8	7 (88%)	0	0 (0%)
		>= 32 weeks	194	41	28 (68%)	5	3 (60%)
	St Mary's Hospital, London	< 32 weeks	94	22	12 (55%)	1	1 (100%)
		>= 32 weeks	184	26	17 (65%)	2	1 (50%)
	St Richard's Hospital	< 32 weeks	36	19	19 (100%)	1	1 (100%)
		>= 32 weeks	607	104	103 (99%)	27	26 (96%)
	Stepping Hill Hospital	< 32 weeks	40	9	5 (56%)	0	0 (0%)
		>= 32 weeks	251	36	24 (67%)	1	1 (100%)
	Stoke Mandeville Hospital	< 32 weeks	42	17	7 (41%)	2	1 (50%)
		>= 32 weeks	367	74	33 (45%)	13	5 (38%)
	Tameside General Hospital	< 32 weeks	38	31	29 (94%)	0	0 (0%)
		>= 32 weeks	176	71	70 (99%)	3	3 (100%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Taunton & Somerset Hospital	< 32 weeks	47	8	5 (63%)	1	1 (100%)
		>= 32 weeks	383	60	24 (40%)	25	8 (32%)
	Tunbridge Wells Hospital	< 32 weeks	55	40	36 (90%)	1	1 (100%)
		>= 32 weeks	544	263	224 (85%)	44	42 (95%)
	University Hospital Lewisham	< 32 weeks	76	81	78 (96%)	3	3 (100%)
		>= 32 weeks	321	129	109 (84%)	21	19 (90%)
	University Hospital Of South Manchester	< 32 weeks	58	90	89 (99%)	3	3 (100%)
		>= 32 weeks	297	138	137 (99%)	39	39 (100%)
	Victoria Hospital, Blackpool	< 32 weeks	33	21	19 (90%)	0	0 (0%)
		>= 32 weeks	323	60	49 (82%)	4	2 (50%)
	Warrington Hospital	< 32 weeks	29	45	41 (91%)	3	3 (100%)
		>= 32 weeks	292	87	83 (95%)	15	14 (93%)
	Watford General Hospital	< 32 weeks	65	36	33 (92%)	4	4 (100%)
		>= 32 weeks	1151	366	354 (97%)	152	150 (99%)
	Wexham Park Hospital	< 32 weeks	54	97	84 (87%)	12	11 (92%)
		>= 32 weeks	464	287	258 (90%)	47	47 (100%)
	Whipps Cross University Hospital	< 32 weeks	66	11	9 (82%)	1	1 (100%)
		>= 32 weeks	289	45	35 (78%)	11	8 (73%)
	Whiston Hospital	< 32 weeks	39	19	17 (89%)	8	8 (100%)
		>= 32 weeks	248	75	70 (93%)	26	25 (96%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Whittington Hospital	< 32 weeks	73	56	51 (91%)	4	4 (100%)
		>= 32 weeks	1968	402	386 (96%)	13	13 (100%)
	Withybush Hospital	< 32 weeks	17	4	2 (50%)	0	0 (0%)
		>= 32 weeks	92	11	6 (55%)	1	0 (0%)
	Worcestershire Royal Hospital	< 32 weeks	80	41	31 (76%)	3	3 (100%)
		>= 32 weeks	485	47	30 (64%)	8	4 (50%)
	York District Hospital	< 32 weeks	47	35	32 (91%)	1	1 (100%)
		>= 32 weeks	266	58	57 (98%)	1	1 (100%)
LNU Total		**Missing**	**5**	**1**	**1 (100%)**	**0**	**0 (0%)**
		< 32 weeks	**3728**	**2663**	**2338 (88%)**	**211**	**196 (93%)**
		>= 32 weeks	**31234**	**8355**	**6807 (82%)**	**1527**	**1310 (86%)**
NICU	Arrowe Park Hospital	< 32 weeks	59	92	90 (98%)	25	25 (100%)
		>= 32 weeks	293	117	96 (82%)	61	50 (82%)
	Birmingham Heartlands Hospital	< 32 weeks	101	211	209 (99%)	4	4 (100%)
		>= 32 weeks	1093	387	382 (99%)	30	29 (97%)
	Birmingham Women's Hospital	< 32 weeks	148	60	37 (62%)	3	1 (33%)
		>= 32 weeks	1058	122	89 (73%)	12	10 (83%)
	Bradford Royal Infirmary	< 32 weeks	99	158	149 (94%)	4	4 (100%)
		>= 32 weeks	585	191	168 (88%)	23	22 (96%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Chelsea & Westminster Hospital	< 32 weeks	123	193	122 (63%)	12	8 (67%)
		>= 32 weeks	534	155	81 (52%)	21	8 (38%)
	Derriford Hospital	Missing	1	0	0 (0%)	0	0 (0%)
		< 32 weeks	81	40	27 (68%)	4	4 (100%)
		>= 32 weeks	963	133	101 (76%)	16	15 (94%)
	Glan Clwyd Hospital	< 32 weeks	41	26	19 (73%)	5	4 (80%)
		>= 32 weeks	255	47	25 (53%)	14	5 (36%)
	Guy's & St Thomas' Hospital	< 32 weeks	204	394	393 (100%)	32	32 (100%)
		>= 32 weeks	618	245	245 (100%)	39	39 (100%)
	Homerton Hospital	< 32 weeks	187	270	257 (95%)	4	4 (100%)
		>= 32 weeks	506	320	306 (96%)	16	12 (75%)
	Hull Royal Infirmary	< 32 weeks	84	142	129 (91%)	6	6 (100%)
		>= 32 weeks	408	141	122 (87%)	23	20 (87%)
	James Cook University Hospital	< 32 weeks	102	81	56 (69%)	3	2 (67%)
		>= 32 weeks	268	73	19 (26%)	15	9 (60%)
	King's College Hospital	< 32 weeks	93	193	170 (88%)	26	26 (100%)
		>= 32 weeks	489	200	166 (83%)	17	12 (71%)
	Lancashire Women & Newborn Centre	< 32 weeks	96	134	131 (98%)	11	10 (91%)
		>= 32 weeks	429	230	212 (92%)	62	60 (97%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Leeds Neonatal Service	Missing	1	0	0 (0%)	0	0 (0%)
		< 32 weeks	196	323	322 (100%)	6	5 (83%)
		>= 32 weeks	1371	369	358 (97%)	22	20 (91%)
	Leicester Neonatal Service	< 32 weeks	161	109	100 (92%)	28	28 (100%)
		>= 32 weeks	960	161	126 (78%)	32	30 (94%)
	Luton & Dunstable Hospital	< 32 weeks	103	124	117 (94%)	10	9 (90%)
		>= 32 weeks	728	235	226 (96%)	50	49 (98%)
	Medway Maritime Hospital	< 32 weeks	100	71	71 (100%)	3	3 (100%)
		>= 32 weeks	807	130	130 (100%)	27	27 (100%)
	New Cross Hospital	< 32 weeks	93	32	26 (81%)	1	1 (100%)
		>= 32 weeks	775	49	27 (55%)	11	8 (73%)
	Norfolk & Norwich University Hospital	< 32 weeks	101	88	80 (91%)	15	12 (80%)
		>= 32 weeks	973	309	291 (94%)	138	132 (96%)
	North Bristol NHS Trust (Southmead)	< 32 weeks	116	69	69 (100%)	41	41 (100%)
		>= 32 weeks	2286	158	157 (99%)	45	45 (100%)
	Nottingham City Hospital	Missing	2	0	0 (0%)	0	0 (0%)
		< 32 weeks	97	70	50 (71%)	19	16 (84%)
		>= 32 weeks	516	91	27 (30%)	23	6 (26%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Nottingham University Hospital (QMC)	Missing	1	0	0 (0%)	0	0 (0%)
		< 32 weeks	110	31	11 (35%)	8	2 (25%)
		>= 32 weeks	487	69	11 (16%)	9	2 (22%)
	Oxford University Hospitals, John Radcliffe Hospital	< 32 weeks	169	44	17 (39%)	3	2 (67%)
		>= 32 weeks	684	101	16 (16%)	21	5 (24%)
	Princess Anne Hospital	< 32 weeks	125	23	16 (70%)	2	0 (0%)
		>= 32 weeks	639	40	14 (35%)	5	0 (0%)
	Queen Alexandra Hospital	< 32 weeks	149	194	183 (94%)	8	8 (100%)
		>= 32 weeks	362	152	116 (76%)	12	8 (67%)
	Queen Charlotte's Hospital	< 32 weeks	142	78	62 (79%)	0	0 (0%)
		>= 32 weeks	268	51	30 (59%)	1	0 (0%)
	Rosie Maternity Hospital, Addenbrookes	< 32 weeks	144	155	147 (95%)	26	25 (96%)
		>= 32 weeks	792	268	237 (88%)	80	71 (89%)
	Royal Bolton Hospital	< 32 weeks	97	52	47 (90%)	6	5 (83%)
		>= 32 weeks	485	110	71 (65%)	12	8 (67%)
	Royal Gwent Hospital	< 32 weeks	90	67	42 (63%)	4	3 (75%)
		>= 32 weeks	332	119	50 (42%)	15	5 (33%)
	Royal Oldham Hospital	< 32 weeks	128	133	110 (83%)	22	20 (91%)
		>= 32 weeks	442	164	113 (69%)	61	40 (66%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	Royal Preston Hospital	< 32 weeks	80	122	120 (98%)	14	14 (100%)
		>= 32 weeks	393	179	169 (94%)	60	60 (100%)
	Royal Sussex County Hospital	Missing	1	0	0 (0%)	0	0 (0%)
		< 32 weeks	150	98	91 (93%)	12	11 (92%)
		>= 32 weeks	322	84	69 (82%)	17	13 (76%)
	Royal Victoria Infirmary	< 32 weeks	148	4	0 (0%)	0	0 (0%)
		>= 32 weeks	459	7	1 (14%)	2	0 (0%)
	Singleton Hospital	< 32 weeks	105	161	145 (90%)	15	15 (100%)
		>= 32 weeks	245	81	57 (70%)	19	14 (74%)
	St George's Hospital	< 32 weeks	147	21	9 (43%)	4	3 (75%)
		>= 32 weeks	1946	17	6 (35%)	7	2 (29%)
	St Mary's Hospital, Manchester	< 32 weeks	197	88	57 (65%)	3	2 (67%)
		>= 32 weeks	714	127	62 (49%)	10	5 (50%)
	St Michael's Hospital	< 32 weeks	147	56	54 (96%)	6	6 (100%)
		>= 32 weeks	2347	99	89 (90%)	3	2 (67%)
	St Peter's Hospital	< 32 weeks	129	107	84 (79%)	10	8 (80%)
		>= 32 weeks	638	116	77 (66%)	29	15 (52%)
	Sunderland Royal Hospital	< 32 weeks	77	6	6 (100%)	0	0 (0%)
		>= 32 weeks	262	16	16 (100%)	1	1 (100%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
	The Jessop Wing, Sheffield	< 32 weeks	194	383	320 (84%)	20	17 (85%)
		>= 32 weeks	767	318	235 (74%)	43	31 (72%)
	The Royal London Hospital	< 32 weeks	140	67	54 (81%)	6	5 (83%)
		>= 32 weeks	403	81	41 (51%)	19	9 (47%)
	University College Hospital	< 32 weeks	145	90	74 (82%)	6	5 (83%)
		>= 32 weeks	564	121	54 (45%)	47	21 (45%)
	University Hospital Coventry	< 32 weeks	120	203	187 (92%)	5	4 (80%)
		>= 32 weeks	402	153	98 (64%)	9	5 (56%)
	University Hospital Of North Staffordshire	< 32 weeks	86	180	180 (100%)	5	5 (100%)
		>= 32 weeks	452	228	226 (99%)	31	31 (100%)
	University Hospital Of North Tees	< 32 weeks	70	67	65 (97%)	1	1 (100%)
		>= 32 weeks	231	69	49 (71%)	20	16 (80%)
	University Hospital Of Wales	< 32 weeks	77	84	56 (67%)	4	3 (75%)
		>= 32 weeks	369	128	30 (23%)	14	10 (71%)
	William Harvey Hospital	< 32 weeks	79	65	52 (80%)	5	5 (100%)
		>= 32 weeks	422	110	87 (79%)	27	23 (85%)
	Wrexham Maelor Hospital	< 32 weeks	31	14	3 (21%)	1	0 (0%)
		>= 32 weeks	169	40	11 (28%)	11	7 (64%)

NNU level	NNU name	Gestational age group	Number of eligible babies	BLOOD CULTURES		CSF CULTURES	
				Number of blood cultures	Number of blood cultures with results entered (as % of blood cultures)	Number of CSF cultures	Number of CSF cultures with results entered (as % of CSF cultures)
NICU Total		Missing	6	0	0 (0%)	0	0 (0%)
		< 32 weeks	4931	5743	4816 (84%)	458	414 (90%)
		>= 32 weeks	31087	6991	5389 (77%)	1282	1012 (79%)
Total		Missing	12	1	1 (100%)	0	0 (0%)
		< 32 weeks	7410	8517	7435 (87%)	682	622 (91%)
		>= 32 weeks	71743	17917	14186 (79%)	3194	2636 (83%)

NNAP, 1 January - 31 December 2013

Table 8.3

Positive blood culture results by neonatal unit level and gestational age.

NNU Level	Gestational age group	Number of babies	Number of admissions	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs
SCU	Missing	1	1	0	0	0
	<= 27 weeks	297	425	2	0	0
	28-31 weeks	827	1025	4	0	0
	32-36 weeks	4596	4908	8	0	0
	>= 37 weeks	7729	8048	15	0	0
LNU	Missing	5	5	0	0	0
	<= 27 weeks	980	1448	45	4	0
	28-31 weeks	2748	3185	45	7	3
	32-36 weeks	11470	12043	29	4	0
	>= 37 weeks	19764	20468	42	2	0
NICU	Missing	6	6	0	0	0
	<= 27 weeks	1996	2961	157	36	7
	28-31 weeks	2935	3412	45	15	0
	32-36 weeks	10435	11009	25	3	0
	>= 37 weeks	20652	21343	48	1	0
Total	**Missing**	**12**	**12**	**0**	**0**	**0**
	<= 27 weeks	**2223**	**4834**	**204**	**40**	**7**
	28-31 weeks	**5187**	**7622**	**94**	**22**	**3**
	32-36 weeks	**24904**	**27960**	**62**	**7**	**0**
	>= 37 weeks	**46839**	**49859**	**105**	**3**	**0**

NNAP, 1 January - 31 December 2013

Table 8.4

Positive CSF culture results by neonatal unit level and gestational age.

NNU Level	Gestational age group	Number of babies	Number of admissions	Number of babies with a pure growth of a pathogen
SCU	Missing	1	1	0
	<= 27 weeks	297	425	0
	28-31 weeks	827	1025	0
	32-36 weeks	4596	4908	0
	>= 37 weeks	7729	8048	0
LNU	Missing	5	5	0
	<= 27 weeks	980	1448	1
	28-31 weeks	2748	3185	1
	32-36 weeks	11470	12043	1
	>= 37 weeks	19764	20468	4
NICU	Missing	6	6	0
	<= 27 weeks	1996	2961	2
	28-31 weeks	2935	3412	0
	32-36 weeks	10435	11009	2
	>= 37 weeks	20652	21343	1
Total	**Missing**	**12**	**12**	**0**
	<= 27 weeks	**2223**	**4834**	**3**
	28-31 weeks	**5187**	**7622**	**1**
	32-36 weeks	**24904**	**27960**	**3**
	>= 37 weeks	**46839**	**49859**	**5**

NNAP, 1 January - 31 December 2013

Table 8.5

Positive blood culture and CSF culture results by neonatal unit and gestational age. Positive results were counted when it had been more than 72 hours since the last known positive infection, including positive cultures recorded in another NNU.

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
SCU	Alexandra Hospital	< 32 weeks	16	18	1	0	0	0	0	0
		>= 32 weeks	196	213	4	1	0	0	1	0
	Bassetlaw District General Hospital	< 32 weeks	11	13	3	0	0	0	0	0
		>= 32 weeks	116	118	16	0	0	0	4	0
	Bedford Hospital	< 32 weeks	23	31	13	0	0	0	0	0
		>= 32 weeks	331	352	124	1	0	0	22	0
	Chase Farm Hospital	< 32 weeks	20	20	1	0	0	0	0	0
		>= 32 weeks	193	207	4	0	0	0	4	0
	Conquest Hospital	< 32 weeks	24	39	4	0	0	0	0	0
		>= 32 weeks	273	292	15	0	0	0	2	0
	Cumberland Infirmary	< 32 weeks	16	21	6	0	0	0	0	0
		>= 32 weeks	202	209	25	1	0	0	0	0
	Darent Valley Hospital	< 32 weeks	55	84	4	1	0	0	1	0
		>= 32 weeks	639	686	104	4	0	0	9	0
	Darlington Memorial Hospital	< 32 weeks	28	38	11	0	0	0	1	0
		>= 32 weeks	374	390	83	0	0	0	19	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	Dewsbury & District Hospital	< 32 weeks	31	39	22	0	0	0	0	0
		>= 32 weeks	218	234	76	2	0	0	9	0
	Ealing Hospital	< 32 weeks	41	51	10	1	0	0	0	0
		>= 32 weeks	196	201	26	0	0	0	3	0
	Eastbourne District General Hospital	< 32 weeks	11	12	0	0	0	0	0	0
		>= 32 weeks	63	68	0	0	0	0	0	0
	Epsom General Hospital	< 32 weeks	11	14	4	0	0	0	2	0
		>= 32 weeks	162	173	30	1	0	0	20	0
	Frimley Park Hospital	< 32 weeks	50	62	39	0	0	0	0	0
		>= 32 weeks	581	601	177	5	0	0	10	0
	Furness General Hospital	< 32 weeks	10	14	0	0	0	0	0	0
		>= 32 weeks	87	90	1	0	0	0	0	0
	George Eliot Hospital	< 32 weeks	26	37	9	0	0	0	0	0
		>= 32 weeks	151	167	27	1	0	0	0	0
	Good Hope Hospital	< 32 weeks	30	33	11	0	0	0	1	0
		>= 32 weeks	549	582	139	0	0	0	15	0
	Harrogate District Hospital	< 32 weeks	18	24	7	0	0	0	0	0
		>= 32 weeks	140	145	13	0	0	0	3	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	Hereford County Hospital	< 32 weeks	13	19	12	1	0	0	0	0
		>= 32 weeks	202	211	75	2	0	0	13	0
	Hinchingbrooke Hospital	< 32 weeks	23	27	5	0	0	0	1	0
		>= 32 weeks	176	178	30	0	0	0	2	0
	James Paget Hospital	< 32 weeks	21	25	7	0	0	0	1	0
		>= 32 weeks	255	260	47	0	0	0	8	0
	King George Hospital	< 32 weeks	69	75	2	0	0	0	0	0
		>= 32 weeks	116	118	1	0	0	0	0	0
	King's Mill Hospital	< 32 weeks	38	46	6	0	0	0	2	0
		>= 32 weeks	214	224	10	0	0	0	0	0
	North Devon District Hospital	< 32 weeks	10	14	14	0	0	0	1	0
		>= 32 weeks	188	195	94	0	0	0	23	0
	North Manchester General Hospital	< 32 weeks	57	75	4	0	0	0	0	0
		>= 32 weeks	348	363	9	1	0	0	5	0
	Oxford University Hospitals, Horton Hospital	< 32 weeks	13	16	3	1	0	0	0	0
		>= 32 weeks	132	144	38	0	0	0	10	0
	Pilgrim Hospital	< 32 weeks	15	18	5	0	0	0	0	0
		>= 32 weeks	289	300	135	1	0	0	16	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	Princess Royal Hospital	< 32 weeks	34	41	8	0	0	0	0	0
		>= 32 weeks	208	220	33	0	0	0	3	0
	Princess Royal University Hospital	< 32 weeks	48	72	5	0	0	0	0	0
		>= 32 weeks	234	253	7	0	0	0	2	0
	Queen Elizabeth Hospital, Gateshead	< 32 weeks	26	32	6	1	0	0	0	0
		>= 32 weeks	184	190	5	0	0	0	1	0
	Queen Elizabeth The Queen Mother Hospital	< 32 weeks	18	24	5	0	0	0	0	0
		>= 32 weeks	391	404	56	0	0	0	3	0
	Royal Surrey County Hospital	< 32 weeks	29	35	3	0	0	0	0	0
		>= 32 weeks	566	596	4	0	0	0	0	0
	Scarborough General Hospital	< 32 weeks	14	24	3	0	0	0	0	0
		>= 32 weeks	164	176	35	1	0	0	1	0
	South Tyneside District Hospital	< 32 weeks	5	8	2	0	0	0	0	0
		>= 32 weeks	81	83	8	0	0	0	1	0
	Staffordshire General Hospital	< 32 weeks	15	20	5	1	0	0	0	0
		>= 32 weeks	834	839	75	1	0	0	7	0
	The Royal Free Hospital	< 32 weeks	27	30	1	0	0	0	0	0
		>= 32 weeks	315	327	15	1	0	0	0	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	Torbay Hospital	< 32 weeks	31	36	13	0	0	0	0	0
		>= 32 weeks	274	284	107	4	0	0	16	0
	University Hospital Of North Durham	< 32 weeks	23	31	6	0	0	0	0	0
		>= 32 weeks	523	549	77	0	0	0	25	0
	Wansbeck General Hospital	< 32 weeks	20	24	3	0	0	0	0	0
		>= 32 weeks	301	324	1	0	0	0	0	0
	Warwick Hospital	< 32 weeks	12	18	5	0	0	0	0	0
		>= 32 weeks	292	318	110	0	0	0	21	0
	West Cumberland Hospital	Missing	1	1	0	0	0	0	0	0
		< 32 weeks	8	17	0	0	0	0	0	0
		>= 32 weeks	155	167	2	0	0	0	1	0
	West Middlesex University Hospital	< 32 weeks	51	60	1	0	0	0	0	0
		>= 32 weeks	362	376	9	0	0	0	2	0
	West Suffolk Hospital	< 32 weeks	33	45	4	0	0	0	1	0
		>= 32 weeks	321	335	42	0	0	0	12	0
	Worthing Hospital	< 32 weeks	27	35	6	0	0	0	1	0
		>= 32 weeks	454	479	87	1	0	0	18	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	Yeovil District Hospital	< 32 weeks	10	14	0	0	0	0	0	0
		>= 32 weeks	147	159	5	0	0	0	1	0
	Ysbyty Gwynedd	< 32 weeks	17	19	2	0	0	0	0	0
		>= 32 weeks	152	156	9	0	0	0	2	0
SCU Total		Missing	1	1	0	0	0	0	0	0
		< 32 weeks	1124	1450	281	6	0	0	12	0
		>= 32 weeks	12325	12956	1990	28	0	0	314	0
LNU	Airedale General Hospital	< 32 weeks	29	32	26	0	0	0	0	0
		>= 32 weeks	172	179	64	0	0	0	3	0
	Barnet Hospital	< 32 weeks	78	92	17	0	0	0	3	0
		>= 32 weeks	326	344	27	0	0	0	6	0
	Barnsley District General Hospital	< 32 weeks	29	35	35	2	0	0	2	0
		>= 32 weeks	251	266	65	2	0	0	27	0
	Basildon Hospital	< 32 weeks	41	54	63	2	1	0	3	0
		>= 32 weeks	326	333	124	0	0	0	27	0
	Basingstoke & North Hampshire Hospital	< 32 weeks	28	35	5	1	0	0	1	0
		>= 32 weeks	226	241	19	0	0	0	3	0
	Bronglais General Hospital	>= 32 weeks	11	11	0	0	0	0	0	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	Broomfield Hospital	< 32 weeks	38	45	21	2	0	0	3	0
		>= 32 weeks	385	402	82	3	0	0	26	1
	Calderdale Royal Hospital	< 32 weeks	70	75	67	6	0	0	5	0
		>= 32 weeks	401	419	131	1	0	0	26	0
	Chesterfield & North Derbyshire Royal Hospital	< 32 weeks	36	39	46	2	0	0	5	0
		>= 32 weeks	273	280	150	0	0	0	17	0
	City Hospital	< 32 weeks	121	131	44	1	0	0	6	0
		>= 32 weeks	774	790	109	0	0	0	39	0
	Colchester General Hospital	< 32 weeks	44	61	13	1	0	0	0	0
		>= 32 weeks	312	328	41	0	0	0	5	0
	Countess Of Chester Hospital	< 32 weeks	21	26	11	0	0	0	2	0
		>= 32 weeks	417	427	90	0	0	0	49	0
	Croydon University Hospital	< 32 weeks	69	79	1	0	0	0	1	0
		>= 32 weeks	403	413	15	2	0	0	2	0
	Diana Princess Of Wales Hospital	< 32 weeks	39	43	27	0	0	0	1	0
		>= 32 weeks	763	790	184	1	0	0	21	1
	Doncaster Royal Infirmary	< 32 weeks	68	85	93	3	0	0	4	0
		>= 32 weeks	264	276	110	0	0	0	27	1

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	Dorset County Hospital	< 32 weeks	21	25	6	0	0	0	1	0
		>= 32 weeks	225	230	53	0	0	0	9	0
	East Surrey Hospital	< 32 weeks	34	34	12	0	0	0	0	0
		>= 32 weeks	390	400	19	0	0	0	5	0
	Glangwili General Hospital	< 32 weeks	18	24	7	0	0	0	0	0
		>= 32 weeks	124	127	22	1	0	0	2	0
	Gloucestershire Royal Hospital	< 32 weeks	89	99	8	1	0	0	0	0
		>= 32 weeks	422	439	11	0	0	0	2	0
	Great Western Hospital	< 32 weeks	52	62	0	0	0	0	0	0
		>= 32 weeks	312	329	6	0	0	0	1	0
	Hillingdon Hospital	< 32 weeks	57	65	10	2	0	0	1	0
		>= 32 weeks	289	308	22	0	0	0	5	0
	Ipswich Hospital	< 32 weeks	47	58	23	0	0	0	2	0
		>= 32 weeks	470	486	102	1	0	0	27	0
	Kettering General Hospital	< 32 weeks	58	66	6	1	0	0	2	0
		>= 32 weeks	239	247	7	0	0	0	2	0
	Kingston Hospital	< 32 weeks	44	48	20	0	1	0	3	0
		>= 32 weeks	351	370	41	1	0	0	10	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	Leighton Hospital	< 32 weeks	34	38	40	0	0	0	23	0
		>= 32 weeks	223	233	98	1	0	0	71	1
	Lincoln County Hospital	< 32 weeks	46	63	37	0	0	0	4	0
		>= 32 weeks	546	556	149	3	0	0	23	0
	Lister Hospital	< 32 weeks	66	80	48	0	0	0	1	0
		>= 32 weeks	840	860	192	0	0	0	13	0
	Macclesfield District General Hospital	< 32 weeks	14	17	8	0	0	0	3	0
		>= 32 weeks	105	114	42	0	0	0	13	0
	Manor Hospital	Missing	1	1	1	0	0	0	0	0
		< 32 weeks	56	61	44	0	0	0	0	0
		>= 32 weeks	481	494	143	1	0	0	17	0
	Milton Keynes Foundation Trust Hospital	< 32 weeks	46	54	4	1	0	0	0	0
		>= 32 weeks	324	336	16	0	0	0	2	0
	Nevill Hall Hospital	< 32 weeks	43	50	3	0	0	0	0	0
		>= 32 weeks	208	218	1	1	0	0	0	0
	Newham General Hospital	Missing	1	1	0	0	0	0	0	0
		< 32 weeks	93	119	15	4	0	0	1	1
		>= 32 weeks	387	399	17	0	1	0	2	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	North Middlesex University Hospital	< 32 weeks	53	66	20	2	0	0	1	0
		>= 32 weeks	270	282	31	0	0	0	9	0
	Northampton General Hospital	< 32 weeks	60	67	62	4	1	0	11	0
		>= 32 weeks	267	276	88	1	0	0	15	0
	Northwick Park Hospital	Missing	1	1	0	0	0	0	0	0
		< 32 weeks	76	96	16	2	0	0	2	0
		>= 32 weeks	459	477	42	2	1	0	4	0
	Ormskirk District General Hospital	< 32 weeks	25	30	25	1	0	0	1	0
		>= 32 weeks	301	315	116	3	0	0	22	0
	Peterborough City Hospital	< 32 weeks	66	79	29	1	0	0	3	0
		>= 32 weeks	890	921	153	2	0	0	42	0
	Pinderfields General Hospital	< 32 weeks	66	82	58	1	0	0	1	0
		>= 32 weeks	257	264	84	1	0	0	5	0
	Poole Hospital NHS Foundation Trust	< 32 weeks	51	58	62	2	0	0	1	0
		>= 32 weeks	285	306	143	0	0	0	1	0
	Prince Charles Hospital	< 32 weeks	27	31	10	0	0	0	0	0
		>= 32 weeks	153	163	32	2	0	0	3	0
	Princess Alexandra Hospital	< 32 weeks	43	53	52	2	1	0	0	0
		>= 32 weeks	342	348	163	1	1	0	6	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	Princess Of Wales Hospital	Missing	1	1	0	0	0	0	0	0
		< 32 weeks	32	39	14	2	0	0	2	0
		>= 32 weeks	218	228	20	0	0	0	3	0
	Queen Elizabeth Hospital, King's Lynn	< 32 weeks	22	26	38	1	0	0	0	0
		>= 32 weeks	305	314	121	1	0	0	43	0
	Queen Elizabeth Hospital, Woolwich	< 32 weeks	68	84	65	0	0	0	4	0
		>= 32 weeks	235	252	151	1	0	0	15	0
	Queen's Hospital, Burton On Trent	Missing	1	1	0	0	0	0	0	0
		< 32 weeks	36	39	35	0	0	0	2	0
		>= 32 weeks	161	168	83	3	0	0	9	0
	Queen's Hospital, Romford	< 32 weeks	87	108	26	1	0	0	1	0
		>= 32 weeks	792	819	63	0	0	0	15	0
	Rotherham District General Hospital	< 32 weeks	34	48	41	1	0	0	2	0
		>= 32 weeks	183	191	104	0	0	0	13	0
	Royal Albert Edward Infirmary	< 32 weeks	35	43	32	0	0	0	0	0
		>= 32 weeks	253	268	114	0	1	0	7	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	Royal Berkshire Hospital	< 32 weeks	53	65	18	0	0	0	2	0
		>= 32 weeks	426	446	52	2	0	0	13	0
	Royal Cornwall Hospital	< 32 weeks	42	46	19	2	0	0	2	0
		>= 32 weeks	515	524	169	2	0	0	52	0
	Royal Derby Hospital	< 32 weeks	69	84	51	2	0	1	9	0
		>= 32 weeks	337	349	94	3	0	0	19	0
	Royal Devon & Exeter Hospital	< 32 weeks	59	73	4	2	0	0	0	0
		>= 32 weeks	491	511	10	1	0	0	4	0
	Royal Glamorgan Hospital	< 32 weeks	49	66	46	2	0	0	0	0
		>= 32 weeks	220	228	67	0	0	0	2	0
	Royal Hampshire County Hospital	< 32 weeks	25	29	1	0	0	0	0	0
		>= 32 weeks	317	333	0	0	0	0	0	0
	Royal Lancaster Infirmary	< 32 weeks	28	33	5	0	0	0	0	0
		>= 32 weeks	132	138	22	0	0	0	3	0
	Royal Shrewsbury Hospital	< 32 weeks	44	45	110	5	2	0	13	0
		>= 32 weeks	746	755	216	0	0	0	45	0
	Royal United Hospital	< 32 weeks	53	66	5	1	0	0	1	0
		>= 32 weeks	494	512	18	3	0	0	2	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	Russells Hall Hospital	< 32 weeks	46	59	8	0	1	0	0	0
		>= 32 weeks	539	560	41	0	0	0	4	0
	Salisbury District Hospital	< 32 weeks	30	35	18	0	0	0	0	0
		>= 32 weeks	209	218	87	1	0	0	6	0
	Scunthorpe General Hospital	< 32 weeks	18	25	13	0	0	0	0	0
		>= 32 weeks	660	686	39	1	0	0	4	0
	Southend Hospital	< 32 weeks	39	47	37	0	0	0	0	0
		>= 32 weeks	381	406	103	3	0	0	16	0
	St Helier Hospital	< 32 weeks	52	54	52	5	0	0	15	0
		>= 32 weeks	418	430	132	0	0	0	35	0
	St Mary's Hospital, IOW	< 32 weeks	13	18	7	0	0	0	0	0
		>= 32 weeks	194	198	28	1	0	0	3	0
	St Mary's Hospital, London	< 32 weeks	94	99	12	4	1	0	1	0
		>= 32 weeks	184	194	17	1	0	0	1	0
	St Richard's Hospital	< 32 weeks	36	40	19	1	0	0	1	0
		>= 32 weeks	607	630	103	1	0	0	26	0
	Stepping Hill Hospital	< 32 weeks	40	47	5	0	1	0	0	0
		>= 32 weeks	251	263	24	0	0	0	1	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	Stoke Mandeville Hospital	< 32 weeks	42	55	7	0	0	0	1	0
		>= 32 weeks	367	389	33	0	0	0	5	0
	Tameside General Hospital	< 32 weeks	38	47	29	1	0	0	0	0
		>= 32 weeks	176	186	70	0	0	0	3	0
	Taunton & Somerset Hospital	< 32 weeks	47	60	5	0	1	0	1	0
		>= 32 weeks	383	401	24	0	0	0	8	0
	Tunbridge Wells Hospital	< 32 weeks	55	65	36	1	0	0	1	0
		>= 32 weeks	544	563	224	1	0	0	42	0
	University Hospital Lewisham	< 32 weeks	76	85	78	3	1	0	3	1
		>= 32 weeks	321	330	109	1	0	0	19	0
	University Hospital Of South Manchester	< 32 weeks	58	68	89	5	0	0	3	0
		>= 32 weeks	297	306	137	0	0	0	39	0
	Victoria Hospital, Blackpool	< 32 weeks	33	40	19	0	0	0	0	0
		>= 32 weeks	323	329	49	0	0	0	2	1
	Warrington Hospital	< 32 weeks	29	31	41	0	0	0	3	0
		>= 32 weeks	292	307	83	2	1	0	14	0
	Watford General Hospital	< 32 weeks	65	73	33	0	0	0	4	0
		>= 32 weeks	1151	1177	354	4	0	0	150	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	Wexham Park Hospital	< 32 weeks	54	62	84	1	0	2	11	0
		>= 32 weeks	464	490	258	0	0	0	47	0
	Whipps Cross University Hospital	< 32 weeks	66	77	9	0	0	0	1	0
		>= 32 weeks	289	305	35	3	1	0	8	0
	Whiston Hospital	< 32 weeks	39	45	17	0	0	0	8	0
		>= 32 weeks	248	259	70	0	0	0	25	0
	Whittington Hospital	< 32 weeks	73	80	51	6	0	0	4	0
		>= 32 weeks	1968	1986	386	1	0	0	13	0
	Withybush Hospital	< 32 weeks	17	26	2	0	0	0	0	0
		>= 32 weeks	92	95	6	0	0	0	0	0
	Worcestershire Royal Hospital	< 32 weeks	80	84	31	0	0	0	3	0
		>= 32 weeks	485	494	30	0	0	0	4	0
	York District Hospital	< 32 weeks	47	60	32	0	0	0	1	0
		>= 32 weeks	266	276	57	0	0	0	1	0
LNU Total		**Missing**	**5**	**5**	**1**	**0**	**0**	**0**	**0**	**0**
		< 32 weeks	**3728**	**4633**	**2338**	**90**	**211**	**52**	**196**	**2**
		>= 32 weeks	**31234**	**32511**	**6807**	**66**	**74**	**4**	**1310**	**5**
NICU	Arrowe Park Hospital	< 32 weeks	59	60	90	7	0	0	25	0
		>= 32 weeks	293	298	96	0	0	0	50	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	Birmingham Heartlands Hospital	< 32 weeks	101	109	209	9	4	0	4	0
		>= 32 weeks	1093	1120	382	3	1	0	29	0
	Birmingham Women's Hospital	< 32 weeks	148	171	37	5	0	0	1	0
		>= 32 weeks	1058	1106	89	0	0	0	10	0
	Bradford Royal Infirmary	< 32 weeks	99	109	149	3	8	0	4	0
		>= 32 weeks	585	610	168	2	0	0	22	0
	Chelsea & Westminster Hospital	< 32 weeks	123	141	122	9	3	0	8	0
		>= 32 weeks	534	538	81	1	0	0	8	0
	Derriford Hospital	Missing	1	1	0	0	0	0	0	0
		< 32 weeks	81	87	27	2	1	0	4	0
		>= 32 weeks	963	1013	101	4	0	0	15	0
	Glan Clwyd Hospital	< 32 weeks	41	46	19	2	0	0	4	0
		>= 32 weeks	255	256	25	1	0	0	5	0
	Guy's & St Thomas' Hospital	< 32 weeks	204	211	393	15	9	1	32	0
		>= 32 weeks	618	653	245	4	0	0	39	0
	Homerton Hospital	< 32 weeks	187	212	257	9	2	4	4	1
		>= 32 weeks	506	524	306	3	0	0	12	0
	Hull Royal Infirmary	< 32 weeks	84	88	129	4	1	0	6	0
		>= 32 weeks	408	415	122	4	1	0	20	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	James Cook University Hospital	< 32 weeks	102	120	56	1	4	0	2	0
		>= 32 weeks	268	288	19	2	0	0	9	1
	King's College Hospital	< 32 weeks	93	106	170	5	1	0	26	0
		>= 32 weeks	489	497	166	3	0	0	12	0
	Lancashire Women & Newborn Centre	< 32 weeks	96	100	131	3	1	0	10	0
		>= 32 weeks	429	446	212	5	0	0	60	0
	Leeds Neonatal Service	Missing	1	1	0	0	0	0	0	0
		< 32 weeks	196	214	322	14	1	0	5	0
		>= 32 weeks	1371	1392	358	5	0	0	20	0
	Leicester Neonatal Service	< 32 weeks	161	182	100	1	0	0	28	0
		>= 32 weeks	960	1021	126	4	0	0	30	0
	Luton & Dunstable Hospital	< 32 weeks	103	133	117	3	0	0	9	0
		>= 32 weeks	728	744	226	1	0	0	49	0
	Medway Maritime Hospital	< 32 weeks	100	110	71	3	3	0	3	0
		>= 32 weeks	807	827	130	2	0	0	27	0
	New Cross Hospital	< 32 weeks	93	104	26	1	0	0	1	0
		>= 32 weeks	775	788	27	0	0	0	8	0
	Norfolk & Norwich University Hospital	< 32 weeks	101	104	80	2	1	0	12	0
		>= 32 weeks	973	991	291	1	0	0	132	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	North Bristol NHS Trust (Southmead)	< 32 weeks	116	131	69	3	0	0	41	0
		>= 32 weeks	2286	2305	157	1	0	0	45	1
	Nottingham City Hospital	Missing	2	2	0	0	0	0	0	0
		< 32 weeks	97	126	50	1	0	0	16	0
		>= 32 weeks	516	538	27	0	0	0	6	0
	Nottingham University Hospital (QMC)	Missing	1	1	0	0	0	0	0	0
		< 32 weeks	110	139	11	3	0	0	2	0
		>= 32 weeks	487	504	11	0	0	0	2	0
	Oxford University Hospitals, John Radcliffe Hospital	< 32 weeks	169	191	17	4	0	0	2	0
		>= 32 weeks	684	695	16	1	0	0	5	0
	Princess Anne Hospital	< 32 weeks	125	138	16	2	0	0	0	0
		>= 32 weeks	639	660	14	0	0	0	0	0
	Queen Alexandra Hospital	< 32 weeks	149	169	183	11	0	0	8	0
		>= 32 weeks	362	376	116	3	0	0	8	0
	Queen Charlotte's Hospital	< 32 weeks	142	156	62	8	1	0	0	0
		>= 32 weeks	268	274	30	1	0	0	0	0
	Rosie Maternity Hospital, Addenbrookes	< 32 weeks	144	160	147	3	0	1	25	0
		>= 32 weeks	792	797	237	0	0	0	71	1

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	Royal Bolton Hospital	< 32 weeks	97	107	47	3	0	0	5	0
		>= 32 weeks	485	497	71	2	0	0	8	0
	Royal Gwent Hospital	< 32 weeks	90	103	42	0	0	0	3	0
		>= 32 weeks	332	339	50	1	0	0	5	0
	Royal Oldham Hospital	< 32 weeks	128	157	110	7	1	0	20	1
		>= 32 weeks	442	472	113	1	0	0	40	0
	Royal Preston Hospital	< 32 weeks	80	91	120	2	1	0	14	0
		>= 32 weeks	393	404	169	1	0	0	60	0
	Royal Sussex County Hospital	Missing	1	1	0	0	0	0	0	0
		< 32 weeks	150	168	91	3	0	0	11	0
		>= 32 weeks	322	328	69	1	0	0	13	0
	Royal Victoria Infirmary	< 32 weeks	148	156	0	0	0	0	0	0
		>= 32 weeks	459	483	1	0	0	0	0	0
	Singleton Hospital	< 32 weeks	105	112	145	7	0	0	15	0
		>= 32 weeks	245	249	57	1	0	0	14	0
	St George's Hospital	< 32 weeks	147	156	9	0	0	0	3	0
		>= 32 weeks	1946	1955	6	1	0	0	2	0
	St Mary's Hospital, Manchester	< 32 weeks	197	219	57	2	0	0	2	0
		>= 32 weeks	714	722	62	1	0	0	5	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	St Michael's Hospital	< 32 weeks	147	184	54	7	0	0	6	0
		>= 32 weeks	2347	2438	89	4	0	0	2	0
	St Peter's Hospital	< 32 weeks	129	140	84	4	0	1	8	0
		>= 32 weeks	638	645	77	2	0	0	15	0
	Sunderland Royal Hospital	< 32 weeks	77	81	6	1	0	0	0	0
		>= 32 weeks	262	270	16	1	0	0	1	0
	The Jessop Wing, Sheffield	< 32 weeks	194	205	320	15	3	0	17	0
		>= 32 weeks	767	778	235	3	0	0	31	0
	The Royal London Hospital	< 32 weeks	140	164	54	3	1	0	5	0
		>= 32 weeks	403	414	41	0	2	0	9	0
	University College Hospital	< 32 weeks	145	180	74	5	0	0	5	0
		>= 32 weeks	564	587	54	1	0	0	21	0
	University Hospital Coventry	< 32 weeks	120	148	187	4	0	0	4	0
		>= 32 weeks	402	415	98	0	0	0	5	0
	University Hospital Of North Staffordshire	< 32 weeks	86	89	180	2	4	0	5	0
		>= 32 weeks	452	460	226	2	0	0	31	0
	University Hospital Of North Tees	< 32 weeks	70	77	65	2	0	0	1	0
		>= 32 weeks	231	235	49	0	0	0	16	0

NNU level	NNU name	Gestational age group	Number of babies	Number of admissions	BLOOD CULTURES				CSF CULTURES	
					Number of blood cultures with results entered	Number of babies with a pure growth of a pathogen	Number of babies with a skin commensal and ≥ 3 clinical signs	Number of babies with a mixed growth and ≥ 3 clinical signs	Number of CSF cultures with results entered	Number of babies with a pure growth of a pathogen
	University Hospital Of Wales	< 32 weeks	77	91	56	0	1	0	3	0
		>= 32 weeks	369	376	30	0	0	0	10	0
	William Harvey Hospital	< 32 weeks	79	94	52	2	0	0	5	0
		>= 32 weeks	422	435	87	0	0	0	23	0
	Wrexham Maelor Hospital	< 32 weeks	31	34	3	0	0	0	0	0
		>= 32 weeks	169	174	11	0	0	0	7	0
NICU Total		**Missing**	**6**	**6**	**1**	**0**	**0**	**0**	**0**	**0**
		< 32 weeks	**4931**	**6373**	**4816**	**202**	**51**	**7**	**414**	**2**
		>= 32 weeks	**31087**	**32532**	**5389**	**73**	**4**	**0**	**1012**	**3**
Total		**Missing**	**12**	**12**	**1**	**0**	**0**	**0**	**0**	**0**
		< 32 weeks	**7410**	**12456**	**7435**	**298**	**62**	**10**	**622**	**4**
		>= 32 weeks	**71743**	**77819**	**14186**	**167**	**10**	**0**	**2636**	**8**

NNAP, 1 January - 31 December 2013

Question 9

As outlined in Section 2.6, due to difficulties in obtaining denominator data in 2012, the Project Board took the decision that no denominator data would be collected for 2013. A solution is being explored which will allow the analysis of data for this audit question in future.

Question 10

How many blood stream infections[a] are there on a NNU per 1,000 days of central line[b] care?

a: the growth of a recognised pathogen in pure culture, or in the case of a mixed growth, or growth of skin commensal, the added requirement for 3 or more of 10 predefined clinical signs

b: UAC, UVC, percutaneous long line or surgically inserted central line

Standard: Standard not set, benchmarking.

Source of Standard: NNAP Board

This year **79,615** infants in **175** NNU received **986,786** days of care. In total **12%** of all care days included a central line and **298** blood stream infections were reported for these central line days; 3.0 blood stream infections per 1,000 central line days.

Table 10.1

Occurrence of central line associated bloodstream infection in NNAP participating NNU; babies who died or were discharged during 2013.

NNU Level	Gestational age group	Number of babies	Number of line days	Number of Central line associated blood stream infections	CABSI per 1000
SCU	Missing	1	0	0	0
	<= 27 weeks	297	151	0	0.0
	28-31 weeks	827	787	1	1.3
	32-36 weeks	4596	749	2	2.7
	>= 37 weeks	7729	611	2	3.3
LNU	Missing	5	0	0	0.0
	<= 27 weeks	980	4303	24	5.6
	28-31 weeks	2748	14561	26	1.8
	32-36 weeks	11470	6562	6	0.9
	>= 37 weeks	19764	3685	9	2.4
NICU	Missing	6	3	0	0.0
	<= 27 weeks	1996	38623	155	4.0
	28-31 weeks	2935	22430	41	1.8
	32-36 weeks	10435	12669	13	1.0
	>= 37 weeks	20652	14099	19	1.3
Total	Missing	12	3	0	0.0
	<= 27 weeks	2223	43077	179	4.2
	28-31 weeks	5187	37778	68	1.8
	32-36 weeks	24904	19980	21	1.1
	>= 37 weeks	46839	18395	30	1.6

NNAP, 1 January - 31 December 2013

Table 10.2

Occurrence of central line associated bloodstream infection in NNAP participating NNUs by neonatal unit and gestational age. Positive results were counted when it had been more than 72 hours since the last known positive infection, including positive cultures recorded in another NNU.

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
SCU	Alexandra Hospital	< 32 weeks	16	1	6	0	0.0
		>= 32 weeks	196	4	9	0	0.0
	Bassetlaw District General Hospital	< 32 weeks	11	3	2	0	0.0
		>= 32 weeks	116	16	4	0	0.0
	Bedford Hospital	< 32 weeks	23	13	24	0	0.0
		>= 32 weeks	331	124	112	0	0.0
	Chase Farm Hospital	< 32 weeks	20	1	0	0	0.0
		>= 32 weeks	193	4	17	0	0.0
	Conquest Hospital	< 32 weeks	24	4	2	0	0.0
		>= 32 weeks	273	15	5	0	0.0
	Cumberland Infirmary	< 32 weeks	16	6	3	0	0.0
		>= 32 weeks	202	25	6	0	0.0
	Darent Valley Hospital	< 32 weeks	55	4	28	0	0.0
		>= 32 weeks	639	104	82	0	0.0
	Darlington Memorial Hospital	< 32 weeks	28	11	4	0	0.0
		>= 32 weeks	374	83	27	0	0.0
	Dewsbury & District Hospital	< 32 weeks	31	22	16	0	0.0
		>= 32 weeks	218	76	21	1	47.6

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	Ealing Hospital	< 32 weeks	41	10	18	0	0.0
		>= 32 weeks	196	26	12	0	0.0
	Eastbourne District General Hospital	< 32 weeks	11	0	2	0	0.0
		>= 32 weeks	63	0	0	0	0.0
	Epsom General Hospital	< 32 weeks	11	4	4	0	0.0
		>= 32 weeks	162	30	6	0	0.0
	Frimley Park Hospital	< 32 weeks	50	39	99	0	0.0
		>= 32 weeks	581	177	69	0	0.0
	Furness General Hospital	< 32 weeks	10	0	2	0	0.0
		>= 32 weeks	87	1	3	0	0.0
	George Eliot Hospital	< 32 weeks	26	9	7	0	0.0
		>= 32 weeks	151	27	16	0	0.0
	Good Hope Hospital	< 32 weeks	30	11	4	0	0.0
		>= 32 weeks	549	139	16	0	0.0
	Harrogate District Hospital	< 32 weeks	18	7	2	0	0.0
		>= 32 weeks	140	13	0	0	0.0
	Hereford County Hospital	< 32 weeks	13	12	21	0	0.0
		>= 32 weeks	202	75	48	0	0.0
	Hinchingbrooke Hospital	< 32 weeks	23	5	102	0	0.0
		>= 32 weeks	176	30	103	0	0.0
	James Paget Hospital	< 32 weeks	21	7	61	0	0.0
		>= 32 weeks	255	47	110	0	0.0

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	King George Hospital	< 32 weeks	69	2	0	0	0.0
		>= 32 weeks	116	1	14	0	0.0
	King's Mill Hospital	< 32 weeks	38	6	197	0	0.0
		>= 32 weeks	214	10	208	0	0.0
	North Devon District Hospital	< 32 weeks	10	14	4	0	0.0
		>= 32 weeks	188	94	14	0	0.0
	North Manchester General Hospital	< 32 weeks	57	4	40	0	0.0
		>= 32 weeks	348	9	36	0	0.0
	Oxford University Hospitals, Horton Hospital	< 32 weeks	13	3	1	0	0.0
		>= 32 weeks	132	38	15	0	0.0
	Pilgrim Hospital	< 32 weeks	15	5	3	0	0.0
		>= 32 weeks	289	135	11	0	0.0
	Princess Royal Hospital	< 32 weeks	34	8	2	0	0.0
		>= 32 weeks	208	33	9	0	0.0
	Princess Royal University Hospital	< 32 weeks	48	5	39	0	0.0
		>= 32 weeks	234	7	31	0	0.0
	Queen Elizabeth Hospital, Gateshead	< 32 weeks	26	6	4	0	0.0
		>= 32 weeks	184	5	4	0	0.0
	Queen Elizabeth The Queen Mother Hospital	< 32 weeks	18	5	3	0	0.0
		>= 32 weeks	391	56	5	0	0.0
	Royal Surrey County Hospital	< 32 weeks	29	3	22	0	0.0
		>= 32 weeks	566	4	29	0	0.0

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	Scarborough General Hospital	< 32 weeks	14	3	6	0	0.0
		>= 32 weeks	164	35	6	0	0.0
	South Tyneside District Hospital	< 32 weeks	5	2	0	0	0.0
		>= 32 weeks	81	8	3	0	0.0
	Staffordshire General Hospital	< 32 weeks	15	5	6	1	166.7
		>= 32 weeks	834	75	8	0	0.0
	The Royal Free Hospital	< 32 weeks	27	1	2	0	0.0
		>= 32 weeks	315	15	7	1	142.9
	Torbay Hospital	< 32 weeks	31	13	3	0	0.0
		>= 32 weeks	274	107	15	1	66.7
	University Hospital Of North Durham	< 32 weeks	23	6	12	0	0.0
		>= 32 weeks	523	77	10	0	0.0
	Wansbeck General Hospital	< 32 weeks	20	3	2	0	0.0
		>= 32 weeks	301	1	4	0	0.0
	Warwick Hospital	< 32 weeks	12	5	8	0	0.0
		>= 32 weeks	292	110	40	0	0.0
	West Cumberland Hospital	Missing	1	0	0	0	0.0
		< 32 weeks	8	0	1	0	0.0
		>= 32 weeks	155	2	4	0	0.0
	West Middlesex University Hospital	< 32 weeks	51	1	36	0	0.0
		>= 32 weeks	362	9	70	0	0.0

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	West Suffolk Hospital	< 32 weeks	33	4	90	0	0.0
		>= 32 weeks	321	42	78	0	0.0
	Worthing Hospital	< 32 weeks	27	6	42	0	0.0
		>= 32 weeks	454	87	55	1	18.2
	Yeovil District Hospital	< 32 weeks	10	0	2	0	0.0
		>= 32 weeks	147	5	13	0	0.0
	Ysbyty Gwynedd	< 32 weeks	17	2	6	0	0.0
		>= 32 weeks	152	9	5	0	0.0
SCU Total		**Missing**	**1**	**0**	**0**	**0**	**0.0**
		< 32 weeks	**1124**	**281**	**938**	**1**	**1.1**
		>= 32 weeks	**12325**	**1990**	**1360**	**4**	**2.9**
LNU	Airedale General Hospital	< 32 weeks	29	26	23	0	0.0
		>= 32 weeks	172	64	14	0	0.0
	Barnet Hospital	< 32 weeks	78	17	211	0	0.0
		>= 32 weeks	326	27	84	0	0.0
	Barnsley District General Hospital	< 32 weeks	29	35	177	2	11.3
		>= 32 weeks	251	65	52	0	0.0
	Basildon Hospital	< 32 weeks	41	63	241	1	4.1
		>= 32 weeks	326	124	197	0	0.0
	Basingstoke & North Hampshire Hospital	< 32 weeks	28	5	41	0	0.0
		>= 32 weeks	226	19	65	0	0.0

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	Bronglais General Hospital	>= 32 weeks	11	0	0	0	0.0
	Broomfield Hospital	< 32 weeks	38	21	191	2	10.5
		>= 32 weeks	385	82	217	1	4.6
	Calderdale Royal Hospital	< 32 weeks	70	67	515	4	7.8
		>= 32 weeks	401	131	254	1	3.9
	Chesterfield & North Derbyshire Royal Hospital	< 32 weeks	36	46	146	0	0.0
		>= 32 weeks	273	150	105	0	0.0
	City Hospital	< 32 weeks	121	44	1086	0	0.0
		>= 32 weeks	774	109	296	0	0.0
	Colchester General Hospital	< 32 weeks	44	13	213	0	0.0
		>= 32 weeks	312	41	131	0	0.0
	Countess Of Chester Hospital	< 32 weeks	21	11	125	0	0.0
		>= 32 weeks	417	90	81	0	0.0
	Croydon University Hospital	< 32 weeks	69	1	508	0	0.0
		>= 32 weeks	403	15	263	0	0.0
	Diana Princess Of Wales Hospital	< 32 weeks	39	27	249	0	0.0
		>= 32 weeks	763	184	40	1	25.0
	Doncaster Royal Infirmary	< 32 weeks	68	93	309	2	6.5
		>= 32 weeks	264	110	162	0	0.0
	Dorset County Hospital	< 32 weeks	21	6	41	0	0.0
		>= 32 weeks	225	53	70	0	0.0

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	East Surrey Hospital	< 32 weeks	34	12	95	0	0.0
		>= 32 weeks	390	19	107	0	0.0
	Glangwili General Hospital	< 32 weeks	18	7	7	0	0.0
		>= 32 weeks	124	22	10	0	0.0
	Gloucestershire Royal Hospital	< 32 weeks	89	8	651	0	0.0
		>= 32 weeks	422	11	277	0	0.0
	Great Western Hospital	< 32 weeks	52	0	141	0	0.0
		>= 32 weeks	312	6	75	0	0.0
	Hillingdon Hospital	< 32 weeks	57	10	138	0	0.0
		>= 32 weeks	289	22	109	0	0.0
	Ipswich Hospital	< 32 weeks	47	23	331	0	0.0
		>= 32 weeks	470	102	240	0	0.0
	Kettering General Hospital	< 32 weeks	58	6	183	1	5.5
		>= 32 weeks	239	7	58	0	0.0
	Kingston Hospital	< 32 weeks	44	20	328	1	3.0
		>= 32 weeks	351	41	123	0	0.0
	Leighton Hospital	< 32 weeks	34	40	299	0	0.0
		>= 32 weeks	223	98	257	0	0.0
	Lincoln County Hospital	< 32 weeks	46	37	93	0	0.0
		>= 32 weeks	546	149	104	0	0.0
	Lister Hospital	< 32 weeks	66	48	379	0	0.0
		>= 32 weeks	840	192	168	0	0.0

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	Macclesfield District General Hospital	< 32 weeks	14	8	35	0	0.0
		>= 32 weeks	105	42	37	0	0.0
	Manor Hospital	missing	1	1	0	0	0.0
		< 32 weeks	56	44	359	0	0.0
		>= 32 weeks	481	143	282	1	3.5
	Milton Keynes Foundation Trust Hospital	< 32 weeks	46	4	159	1	6.3
		>= 32 weeks	324	16	100	0	0.0
	Nevill Hall Hospital	< 32 weeks	43	3	22	0	0.0
		>= 32 weeks	208	1	36	0	0.0
	Newham General Hospital	Missing	1	0	0	0	0.0
		< 32 weeks	93	15	215	1	4.7
		>= 32 weeks	387	17	120	0	0.0
	North Middlesex University Hospital	< 32 weeks	53	20	80	0	0.0
		>= 32 weeks	270	31	65	0	0.0
	Northampton General Hospital	< 32 weeks	60	62	462	3	6.5
		>= 32 weeks	267	88	213	0	0.0
	Northwick Park Hospital	Missing	1	0	.	0	0.0
		< 32 weeks	76	16	268	1	3.7
		>= 32 weeks	459	42	107	1	9.3
	Ormskirk District General Hospital	< 32 weeks	25	25	132	0	0.0
		>= 32 weeks	301	116	68	2	29.4

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	Peterborough City Hospital	< 32 weeks	66	29	401	1	2.5
		>= 32 weeks	890	153	122	1	8.2
	Pinderfields General Hospital	< 32 weeks	66	58	320	0	0.0
		>= 32 weeks	257	84	57	0	0.0
	Poole Hospital NHS Foundation Trust	< 32 weeks	51	62	231	1	4.3
		>= 32 weeks	285	143	104	0	0.0
	Prince Charles Hospital	< 32 weeks	27	10	49	0	0.0
		>= 32 weeks	153	32	26	0	0.0
	Princess Alexandra Hospital	< 32 weeks	43	52	203	1	4.9
		>= 32 weeks	342	163	143	0	0.0
	Princess Of Wales Hospital	Missing	1	0	.	0	0.0
		< 32 weeks	32	14	28	0	0.0
		>= 32 weeks	218	20	29	0	0.0
	Queen Elizabeth Hospital, King's Lynn	< 32 weeks	22	38	245	1	4.1
		>= 32 weeks	305	121	255	0	0.0
	Queen Elizabeth Hospital, Woolwich	< 32 weeks	68	65	280	0	0.0
		>= 32 weeks	235	151	109	0	0.0
	Queen's Hospital, Burton On Trent	missing	1	0	0	0	0.0
		< 32 weeks	36	35	50	0	0.0
		>= 32 weeks	161	83	31	0	0.0

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	Queen's Hospital, Romford	< 32 weeks	87	26	530	0	0.0
		>= 32 weeks	792	63	212	0	0.0
	Rotherham District General Hospital	< 32 weeks	34	41	111	1	9.0
		>= 32 weeks	183	104	115	0	0.0
	Royal Albert Edward Infirmary	< 32 weeks	35	32	77	0	0.0
		>= 32 weeks	253	114	38	0	0.0
	Royal Berkshire Hospital	< 32 weeks	53	18	223	0	0.0
		>= 32 weeks	426	52	236	0	0.0
	Royal Cornwall Hospital	< 32 weeks	42	19	347	2	5.8
		>= 32 weeks	515	169	268	1	3.7
	Royal Derby Hospital	< 32 weeks	69	51	358	2	5.6
		>= 32 weeks	337	94	230	1	4.3
	Royal Devon & Exeter Hospital	< 32 weeks	59	4	389	1	2.6
		>= 32 weeks	491	10	194	0	0.0
	Royal Glamorgan Hospital	< 32 weeks	49	46	205	1	4.9
		>= 32 weeks	220	67	112	0	0.0
	Royal Hampshire County Hospital	< 32 weeks	25	1	79	0	0.0
		>= 32 weeks	317	0	50	0	0.0
	Royal Lancaster Infirmary	< 32 weeks	28	5	138	0	0.0
		>= 32 weeks	132	22	65	0	0.0

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	Royal Shrewsbury Hospital	< 32 weeks	44	110	232	5	21.6
		>= 32 weeks	746	216	146	0	0.0
	Royal United Hospital	< 32 weeks	53	5	283	0	0.0
		>= 32 weeks	494	18	197	1	5.1
	Russells Hall Hospital	< 32 weeks	46	8	335	0	0.0
		>= 32 weeks	539	41	195	0	0.0
	Salisbury District Hospital	< 32 weeks	30	18	103	0	0.0
		>= 32 weeks	209	87	35	0	0.0
	Scunthorpe General Hospital	< 32 weeks	18	13	126	0	0.0
		>= 32 weeks	660	39	56	0	0.0
	Southend Hospital	< 32 weeks	39	37	204	0	0.0
		>= 32 weeks	381	103	207	0	0.0
	St Helier Hospital	< 32 weeks	52	52	259	2	7.7
		>= 32 weeks	418	132	104	0	0.0
	St Mary's Hospital, IOW	< 32 weeks	13	7	97	0	0.0
		>= 32 weeks	194	28	229	0	0.0
	St Mary's Hospital, London	< 32 weeks	94	12	185	3	16.2
		>= 32 weeks	184	17	60	0	0.0
	St Richard's Hospital	< 32 weeks	36	19	60	0	0.0
		>= 32 weeks	607	103	89	0	0.0

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	Stepping Hill Hospital	< 32 weeks	40	5	168	0	0.0
		>= 32 weeks	251	24	40	0	0.0
	Stoke Mandeville Hospital	< 32 weeks	42	7	239	0	0.0
		>= 32 weeks	367	33	127	0	0.0
	Tameside General Hospital	< 32 weeks	38	29	123	1	8.1
		>= 32 weeks	176	70	73	0	0.0
	Taunton & Somerset Hospital	< 32 weeks	47	5	285	0	0.0
		>= 32 weeks	383	24	290	0	0.0
	Tunbridge Wells Hospital	< 32 weeks	55	36	184	1	5.4
		>= 32 weeks	544	224	109	0	0.0
	University Hospital Lewisham	< 32 weeks	76	78	840	3	3.6
		>= 32 weeks	321	109	249	1	4.0
	University Hospital Of South Manchester	< 32 weeks	58	89	525	2	3.8
		>= 32 weeks	297	137	71	0	0.0
	Victoria Hospital, Blackpool	< 32 weeks	33	19	187	0	0.0
		>= 32 weeks	323	49	71	0	0.0
	Warrington Hospital	< 32 weeks	29	41	234	0	0.0
		>= 32 weeks	292	83	130	2	15.4
	Watford General Hospital	< 32 weeks	65	33	223	0	0.0
		>= 32 weeks	1151	354	134	1	7.5

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	Wexham Park Hospital	< 32 weeks	54	84	326	1	3.1
		>= 32 weeks	464	258	208	0	0.0
	Whipps Cross University Hospital	< 32 weeks	66	9	106	0	0.0
		>= 32 weeks	289	35	52	0	0.0
	Whiston Hospital	< 32 weeks	39	17	99	0	0.0
		>= 32 weeks	248	70	117	0	0.0
	Whittington Hospital	< 32 weeks	73	51	338	2	5.9
		>= 32 weeks	1968	386	147	0	0.0
	Withybush Hospital	< 32 weeks	17	2	5	0	0.0
		>= 32 weeks	92	6	1	0	0.0
	Worcestershire Royal Hospital	< 32 weeks	80	31	230	0	0.0
		>= 32 weeks	485	30	54	0	0.0
	York District Hospital	< 32 weeks	47	32	151	0	0.0
		>= 32 weeks	266	57	73	0	0.0
LNU Total		**Missing**	**5**	**1**	**0**	**0**	**0.0**
		< 32 weeks	**3728**	**2338**	**18864**	**50**	**2.6**
		>=32 weeks	**31234**	**2807**	**10247**	**15**	**1.5**
NICU	Arrowe Park Hospital	< 32 weeks	59	90	574	3	5.2
		>= 32 weeks	293	96	236	0	0.0
	Birmingham Heartlands Hospital	< 32 weeks	101	209	960	11	11.5
		>= 32 weeks	1093	382	344	1	2.9

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	Birmingham Women's Hospital	< 32 weeks	148	37	1908	3	1.6
		>= 32 weeks	1058	89	527	0	0.0
	Bradford Royal Infirmary	< 32 weeks	99	149	943	7	7.4
		>= 32 weeks	585	168	185	0	0.0
	Chelsea & Westminster Hospital	< 32 weeks	123	122	2483	8	3.2
		>= 32 weeks	534	81	1141	1	0.9
	Derriford Hospital	Missing	1	0	0	0	0.0
		< 32 weeks	81	27	643	1	1.6
		>= 32 weeks	963	101	230	1	4.3
	Glan Clwyd Hospital	< 32 weeks	41	19	309	2	6.5
		>= 32 weeks	255	25	144	0	0.0
	Guy's & St Thomas' Hospital	< 32 weeks	204	393	2795	27	9.7
		>= 32 weeks	618	245	1463	3	2.1
	Homerton Hospital	< 32 weeks	187	257	1823	9	4.9
		>= 32 weeks	506	306	506	1	2.0
	Hull Royal Infirmary	< 32 weeks	84	129	1089	4	3.7
		>= 32 weeks	408	122	603	3	5.0
	James Cook University Hospital	< 32 weeks	102	56	443	3	6.8
		>= 32 weeks	268	19	121	1	8.3
	King's College Hospital	< 32 weeks	93	170	1149	7	6.1
		>= 32 weeks	489	166	1457	2	1.4

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	Lancashire Women & Newborn Centre	< 32 weeks	96	131	504	1	2.0
		>= 32 weeks	429	212	232	0	0.0
	Leeds Neonatal Service	Missing	1	0	3	0	0.0
		< 32 weeks	196	322	2262	14	6.2
		>= 32 weeks	1371	358	2101	3	1.4
	Leicester Neonatal Service	< 32 weeks	161	100	1690	0	0.0
		>= 32 weeks	960	126	841	0	0.0
	Luton & Dunstable Hospital	< 32 weeks	103	117	1512	3	2.0
		>= 32 weeks	728	226	422	0	0.0
	Medway Maritime Hospital	< 32 weeks	100	71	1188	4	3.4
		>= 32 weeks	807	130	388	2	5.2
	New Cross Hospital	< 32 weeks	93	26	841	1	1.2
		>= 32 weeks	775	27	312	0	0.0
	Norfolk & Norwich University Hospital	< 32 weeks	101	80	985	3	3.0
		>= 32 weeks	973	291	762	1	1.3
	North Bristol NHS Trust (Southmead)	< 32 weeks	116	69	1466	4	2.7
		>= 32 weeks	2286	157	504	1	2.0
	Nottingham City Hospital	Missing	2	0	0	0	0.0
		< 32 weeks	97	50	1082	1	0.9
		>= 32 weeks	516	27	336	0	0.0

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	Nottingham University Hospital (QMC)	Missing	1	0	0	0	0.0
		< 32 weeks	110	11	1348	3	2.2
		>= 32 weeks	487	11	749	0	0.0
	Oxford University Hospitals, John Radcliffe Hospital	< 32 weeks	169	17	1516	1	0.7
		>= 32 weeks	684	16	680	1	1.5
	Princess Anne Hospital	< 32 weeks	125	16	1836	2	1.1
		>= 32 weeks	639	14	812	0	0.0
	Queen Alexandra Hospital	< 32 weeks	149	183	1663	8	4.8
		>= 32 weeks	362	116	254	0	0.0
	Queen Charlotte's Hospital	< 32 weeks	142	62	611	3	4.9
		>= 32 weeks	268	30	136	0	0.0
	Rosie Maternity Hospital, Addenbrookes	< 32 weeks	144	147	2474	4	1.6
		>= 32 weeks	792	237	1219	0	0.0
	Royal Bolton Hospital	< 32 weeks	97	47	977	3	3.1
		>= 32 weeks	485	71	384	0	0.0
	Royal Gwent Hospital	< 32 weeks	90	42	814	0	0.0
		>= 32 weeks	332	50	203	1	4.9
	Royal Oldham Hospital	< 32 weeks	128	110	1275	5	3.9
		>= 32 weeks	442	113	270	0	0.0
	Royal Preston Hospital	< 32 weeks	80	120	893	3	3.4
		>= 32 weeks	393	169	270	0	0.0

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	Royal Sussex County Hospital	Missing	1	0	0	0	0.0
		< 32 weeks	150	91	1350	1	0.7
		>= 32 weeks	322	69	290	0	0.0
	Royal Victoria Infirmary	< 32 weeks	148	0	1387	0	0.0
		>= 32 weeks	459	1	307	0	0.0
	Singleton Hospital	< 32 weeks	105	145	583	4	6.9
		>= 32 weeks	245	57	209	1	4.8
	St George's Hospital	< 32 weeks	147	9	1875	0	0.0
		>= 32 weeks	1946	6	1106	1	0.9
	St Mary's Hospital, Manchester	< 32 weeks	197	57	2040	1	0.5
		>= 32 weeks	714	62	1217	0	0.0
	St Michael's Hospital	< 32 weeks	147	54	1642	6	3.7
		>= 32 weeks	2347	89	1785	2	1.1
	St Peter's Hospital	< 32 weeks	129	84	399	2	5.0
		>= 32 weeks	638	77	148	0	0.0
	Sunderland Royal Hospital	< 32 weeks	77	6	627	0	0.0
		>= 32 weeks	262	16	192	1	5.2
	The Jessop Wing, Sheffield	< 32 weeks	194	320	2103	19	9.0
		>= 32 weeks	767	235	376	1	2.7
	The Royal London Hospital	< 32 weeks	140	54	2376	3	1.3
		>= 32 weeks	403	41	841	2	2.4

NNU Level	NNU name	Gestational age group	Number of babies	Number of blood cultures with pathogens entered	Number of line days	Number of central line associated blood stream infections	CABSI per 1000 line days
	University College Hospital	< 32 weeks	145	74	2142	3	1.4
		>= 32 weeks	564	54	413	1	2.4
	University Hospital Coventry	< 32 weeks	120	187	1153	3	2.6
		>= 32 weeks	402	98	235	0	0.0
	University Hospital Of North Staffordshire	< 32 weeks	86	180	783	5	6.4
		>= 32 weeks	452	226	244	1	4.1
	University Hospital Of North Tees	< 32 weeks	70	65	692	1	1.4
		>= 32 weeks	231	49	185	0	0.0
	University Hospital Of Wales	< 32 weeks	77	56	930	0	0.0
		>= 32 weeks	369	30	951	0	0.0
	William Harvey Hospital	< 32 weeks	79	52	686	0	0.0
		>= 32 weeks	422	87	304	0	0.0
	Wrexham Maelor Hospital	< 32 weeks	31	3	229	0	0.0
		>= 32 weeks	169	11	133	0	0.0
NICU Total		**Missing**	**6**	**1**	**3**	**0**	**0.0**
		< 32 weeks	**4931**	**4816**	**61053**	**196**	**3.3**
		>= 32 weeks	**31087**	**5389**	**26768**	**32**	**1.2**
Total		**Missing**	**12**	**1**	**3**	**0**	**0.0**
		< 32 weeks	**7410**	**7435**	**80855**	**247**	**3.1**
		>= 32 weeks	**71743**	**14186**	**38375**	**51**	**1.3**

NNAP, 1 January - 31 December 2013

4. Audit developments in 2014

4.1 Changes to the audit questions

The question about the number of moderately preterm infants receiving care on a neonatal unit was excluded from the 2013 data report.

4.2 Changes to NNAP analyses

Retinopathy of Prematurity

The Retinopathy of Prematurity question has been a longstanding matter of interest and debate since NNAP started publishing data about adherence to national standards on ROP screening. In particular the 2012 data report made clear that a number of units do conduct screening on a proportion of babies after discharge. By the time of the NNAP collaborators meeting in March 2014, it was clear that if the NNAP interpretation of the relevant national guidance included post discharge screens done after discharge, the NNAP process would more reliably identify units where babies were either screened at the wrong time, or not screened at all. For this reason, and following extensive discussion with the Project Board and the collaborators meeting, NNAP now views babies screened in the following manner as adherent to the NNAP interpretation of national guidance:

- Babies receiving a first screen 'in window' while an inpatient
- Babies discharged before the 'window' opens, screened before discharge
- Babies discharged home prior to the opening of the 'window' and screened as an outpatient, 'in window' after discharge.

Additionally, early in 2014, it became clear that some units did not record all ROP screening in the ad hoc forms. For some units a significant proportion of ROP screens were entered only in 'daily data'. The Project Board discussed this at length, and it was decided that the analysis would proceed on the basis that an entry in the 'daily data' was evidence that a screen took place. This move increased data completeness for a number of trusts, which was in line with changes to the audit that HQIP and NAGCAE had asked NNAP to make.

Since this decision Clevermed have made changes to the 'daily data' in Badgernet (but not Badger 3) that result in an episodic form being **automatically opened when an entry in the daily data is made**.

Parental consultation

By the end of the NNAP collaborators meeting in March 2014 it was clear that the clinical community regarded an analysis of the parental consultation question based only on longer admissions (those longer than 12 hours) as being better suited to reflect comparable groups of babies in different units. For this reason, this year's report only includes admissions longer than 12 hours in the analysis for the first consultation question.

Two-year follow up

In previous reports NNAP had published rates of follow up only at network level. In the 2012 data report, less than half of the babies born at less than 30 weeks gestation had any health data at all recorded. Therefore the Project Board decided to report the amount of health data entered by hospital.

4.3 Improved online reporting: NNAP Dashboard

The NNAP Dashboard, created and managed by Clevermed, was available to BadgerNet users who wished to check the quality and completeness of their data utilised for NNAP analyses. The NNAP Dashboard currently covers data relating to NNAP questions 1-5 and aggregates results on a monthly basis. The dashboard aims to use the same selection criteria as the NNAP analyses. The aim is to assist NNUs to obtain an indication of the quality of data entered, and to find, check and amend data more easily. The data on the dashboard will not always have the same number of eligible babies for a NNU as the NNAP report for a year, but should help NNUs to improve data completeness and quality.

BadgerNet users can find the NNAP Dashboard in the parameters for ‘Dashboards’, under the ‘Unit Reports’ tab.

4.4 Expansion of the audit

Five additional NNU in England and Wales began contributing data to the NNAP in 2013. As all five NNU were collecting data prior to the beginning of the year, this marks 2013 as the first year that NNAP has had a complete submission of neonatal data from England and Wales.

4.5 Identification of outliers

The 2012 NNAP report on 2011 neonatal data was the first in which NNAP followed the recommendations of the Department of Health/Healthcare Quality Improvement Partnership’s Best Practice Guidance 'Detection and Management of Outliers' prepared by the then National Clinical Audit Advisory Group and published in January 2011. A summary of the necessary steps is found in Appendix 2 of that document. This was slightly modified and reproduced in the NNAP Quality Improvement Document found on the NNAP webpage (www.rcpch.ac.uk/nnap), and this section of the report describes the steps followed by NNAP and the units with outlying data.

In previous years, NNAP has published the results of the outlier process in the subsequent annual report. The 2013 NNAP report is the first time that outliers have been reported by NNAP within the same year. As a consequence, this report features the results of outlier analysis for both 2012 and 2013 in separate sections below.

4.5.1 2012 data outliers

For the report on 2012 data, the Project Board decided to limit outlier analysis to two questions, in part because units might not have had an opportunity to respond to previous outlier analyses prior to the period to which the following outlier analysis would pertain. These two questions were:

1. Do all babies of <29 weeks gestation have their temperature taken within the first hour after birth?
2. Do all babies <1,501g or gestational age at birth <32 weeks undergo first ROP screening in accordance with the current guideline recommendations?

Funnel plots were published in the 2012 data report, and 87 (14 for temperature, and 73 for ROP screening) units were subsequently written to by the NNAP clinical lead because their data exceeded a threshold of 'alert' or 'alarm' corresponding to p values of 0.025 or 0.001 respectively. Units had an opportunity to amend their data, and 26 outlying units amended their data, which resulted in 13 units no longer being classified as outliers according to the prespecified 0.025 p value threshold.

Units identified as outliers after the data had been amended are listed in tables 4.5.1.1 and 4.5.1.2.

Table 4.5.1.1
Units identified as 'outliers' for temperature taken within an hour of admission on 2012 data. Data shown are those after units had opportunity to amend their data.

Unit name	Under 'Alert' threshold for proportion of babies with temperature taken within an hour of birth (Y/N)	Under 'Alarm' threshold for proportion of babies with temperature taken within an hour of birth (Y/N)	Number of eligible babies	Number with temperature taken with an hour of birth (as % of eligible babies)
Hinchingbrooke Hospital	Y	N	5	1 (20%)
North Bristol Trust (Southmead)	Y	N	53	41 (77%)
Queen Charlotte's Hospital	Y	N	82	55 (67%)
Royal Bolton Hospital	Y	N	51	40 (78%)
Taunton and Somerset Hospital	Y	N	18	9 (50%)
The Royal London Hospital - Elizabeth Ward	Y	N	33	23 (70%)
Colchester General Hospital	Y	Y	14	10 (71%)
Great Western Hospital	Y	Y	12	8 (67%)
Kettering General Hospital	Y	Y	10	7 (70%)
Newham General Hospital	Y	Y	23	18 (78%)
Nottingham University Hospital (QMC)	Y	Y	14	10 (71%)
Royal Sussex County Hospital	Y	Y	40	32 (80%)
Russells Hall Hospital	Y	Y	18	13 (72%)
Southend Hospital	Y	Y	10	7 (70%)

Table 4.5.1.2

Units identified as 'outliers' for screening for Retinopathy of Prematurity by NNAP on 2012 data. Data shown are those after units had opportunity to amend their data.

NNU name	Under 'Alert' threshold for proportion of babies with appropriate ROP screening	Under 'Alarm' threshold for proportion of babies with appropriate ROP screening	Number of eligible babies	Number screened according to NNAP interpretation of guidelines
Alexandra Hospital	Y	N	23	12 (52%)
Basildon Hospital	Y	N	54	30 (56%)
Basingstoke and North Hampshire Hospital	Y	N	21	10 (48%)
Birmingham Women's Hospital	Y	Y	100	44 (44%)
Chase Farm Hospital	Y	N	22	9 (41%)
Countess Of Chester Hospital	Y	N	31	17 (55%)
Croydon University Hospital	Y	N	48	28 (58%)
Darent Valley Hospital	Y	Y	40	18 (45%)
Derriford Hospital	Y	Y	67	26 (39%)
Ealing Hospital	Y	Y	36	2 (6%)
East Surrey Hospital	Y	Y	40	3 (8%)
Eastbourne District General Hospital	Y	Y	16	0 (0%)
Frimley Park Hospital	Y	Y	36	18 (50%)
Great Western Hospital	Y	Y	53	15 (28%)
Hinchingbrooke Hospital	Y	Y	12	3 (25%)
Homerton Hospital	Y	Y	98	52 (53%)
Ipswich Hospital	Y	Y	37	7 (19%)
James Cook University Hospital	Y	Y	86	31 (36%)
James Paget Hospital	Y	Y	22	5 (23%)
King George Hospital	Y	N	51	28 (55%)
King's Mill Hospital	Y	N	36	9 (25%)
Kingston Hospital	Y	Y	50	25 (50%)
Lincoln County Hospital	Y	N	36	15 (42%)
Lincoln County Hospital	Y	Y	36	15 (42%)
Lister Hospital	Y	Y	53	23 (43%)
Newham General Hospital	Y	Y	82	39 (48%)
Norfolk and Norwich University Hospital	Y	N	74	42 (57%)
North Manchester General Hospital	Y	N	50	29 (58%)
Nottingham City Hospital	Y	Y	85	18 (21%)
Nottingham University Hospital (QMC)	Y	Y	27	2 (7%)
Ormskirk District General Hospital	Y	Y	27	12 (44%)

NNU name	Under 'Alert' threshold for proportion of babies with appropriate ROP screening	Under 'Alarm' threshold for proportion of babies with appropriate ROP screening	Number of eligible babies	Number screened according to NNAP interpretation of guidelines
Pilgrim Hospital	Y	N	17	7 (41%)
Princess Alexandra Hospital	Y	N	35	17 (49%)
Princess Royal University Hospital	Y	Y	29	6 (21%)
Queen Alexandra Hospital	Y	Y	97	40 (41%)
Queen Charlotte's Hospital	Y	Y	59	17 (29%)
Queen Elizabeth Hospital, Woolwich	Y	Y	54	18 (33%)
Queen Elizabeth The Queen Mother Hospital	Y	N	23	12 (52%)
Queen's Hospital, Romford	Y	Y	29	8 (28%)
Royal Derby Hospital	Y	N	62	37 (60%)
Royal Lancaster Infirmary	Y	Y	21	6 (29%)
Royal Preston Hospital	Y	Y	67	8 (12%)
Royal Surrey County Hospital	Y	Y	29	5 (17%)
Royal Sussex County Hospital	Y	Y	81	46 (57%)
Russells Hall Hospital	Y	Y	51	17 (33%)
St Mary's Hospital, IOW	Y	N	14	5 (36%)
St Mary's Hospital, London	Y	N	57	35 (61%)
St Richard's Hospital	Y	N	25	13 (52%)
Staffordshire General Hospital	Y	N	16	7 (44%)
Taunton and Somerset Hospital	Y	Y	38	8 (21%)
The Royal Free Hospital	Y	Y	20	4 (20%)
The Royal London Hospital	Y	Y	81	27 (33%)
University Hospital Coventry	Y	Y	91	54 (59%)
University Hospital Lewisham	Y	N	79	50 (63%)
University Hospital Of North Durham	Y	Y	22	6 (27%)
University Hospital Of North Tees	Y	Y	52	6 (12%)
Victoria Hospital, Blackpool	Y	N	41	15 (37%)
Victoria Hospital, Blackpool	Y	Y	41	15 (37%)
Wansbeck General Hospital	Y	Y	25	9 (36%)
Warrington Hospital	Y	Y	31	12 (39%)
Watford General Hospital	Y	N	64	38 (59%)
West Middlesex University Hospital	Y	Y	54	1 (2%)
Whipps Cross University Hospital	Y	Y	71	13 (18%)
William Harvey Hospital	Y	Y	51	8 (16%)
Yeovil District Hospital	Y	Y	12	3 (25 %)

4.5.2 2013 data outlier analysis

Four audit questions were selected to be used to in the recognition of outliers:

1. Do all babies of <29 weeks gestation have their temperature taken within the first hour after birth?
2. Do all babies <1,501g or gestational age at birth <32 weeks undergo first ROP screening in accordance with the current guideline recommendations?
3. What proportion of babies <33 weeks gestation at birth are receiving their mother's milk when discharged from a neonatal unit?
4. Is there a documented consultation with parents/carers by a senior member of the neonatal team within 24 hours of admission?

As described above, this process, as well as the questions, differed from that on the 2012 data. Most importantly NNAP agreed to identify the outliers within a year, so as to speed up any quality improvement benefits. In addition the Project Board took a decision in late 2013 to only include units in an outlier analysis if the data for a question was 90% or more complete. It was then agreed with the board, professional organisations and HQIP that we would apply this in-year identification of outliers to the 2013 data. It was decided to describe units with lower data completeness as 'non participant' in the outlier analysis for that question. The figure of 90% completeness was chosen on an arbitrary basis, with the intention that missing data should not confound interpretation of the outlier analysis, as may have occurred with the previous process; in particular, missing data for the 2012 data year (and previously) was treated as evidence of failure to reach a clinical standard. Units not reaching the data completeness threshold for participation are identifiable in the data tables for each question in the main body of the report. These units have been written to, identifying the low data completeness.

For the 2013 data year, missing data was included in neither the numerator, nor the denominator of the outlier analysis. A sensitivity analysis was carried out to check if the results of the outlier analysis for each question would be altered if the missing data were handled differently.

In interpreting these results, it must be borne in mind that the statistical threshold chosen by the board means that it is possible some units were identified as performing below the standard by chance. Furthermore it is only practicable and reasonable to risk adjust low outlying performance for one question – whether baby is receiving any mothers milk at discharge. This risk adjustment process may not fully account for all social factors associated with parental wish to feed mothers milk to babies. NNAP welcomes engagement from audit users on the handling of this and other issues.

Finally, it is the intention of NNAP to identify high outliers – those whose performance on the audit measures is good. The statistical methodology precludes identifying these using funnel plots except in the case of breastmilk feeding at discharge, for obvious reasons. Where NNAP standards are achieved, this is identifiable in the tables.

High outliers

Some NNU did consistently well in the audit. They will be sent congratulations from NNAP and a certificate of commendation.

4.5.2.1 NNU identified as 'below threshold' in the NNAP outlier analysis and sensitivity analysis

The outlier analysis for the NNAP 2013 Data Report was performed using the March 2014 data download from the Badger.Net platform. These analyses are included in the NNAP 2013 Data Report.

NNU identified as potential outliers were contacted to verify data accuracy and the status of NNU identified as 'below threshold' in the outlier analysis was then reassessed. As in previous years, the reassessment was based on all eligible babies appearing in the most recent data download (July 2014). It is important to note that 1) it is possible that the number of eligible babies might alter depending on amendments NNU may have made to their records, and 2) the reassessment relates only to NNU identified as 'below threshold' in the outlier analysis, and not all NNU.

The status of NNU identified as 'outliers' on 2013 data is shown in Table 4.5.2.1.1. These NNU were identified as being 'below threshold' after having had the opportunity to amend their data.

Table 4.5.2.1.1
Units identified as 'outliers' by NNAP on 2013 data. Data shown are those after units identified as 'below the threshold' had the opportunity to amend their data.

NNAP question	NNU name	Below alert (0.025) threshold	Below alarm (0.001) threshold	Number of eligible babies/ episodes	Number of babies/episodes meeting NNAP standard
Question 3- ROP screening	Queen's Hospital, Romford	Y	N	38	21 (55%)
Question 4- Mother's milk at discharge	James Cook University Hospital	Y	N	44	10 (23%)
	Prince Charles Hospital	Y	N	13	3 (23%)
	Princess Of Wales Hospital	Y	Y	11	0 (0%)
	University Hospital Of North Durham	Y	Y	16	2 (13%)
	Wrexham Maelor Hospital	Y	Y	32	7 (22%)
Question 5- First consultation	Liverpool Women's Hospital	Y	N	676	396 (59%)

4.6 NNAP data entry guidelines

A NNAP Data Entry Guideline has been produced which outlines the location of each data item in the audit. Versions of the guide can be found for both Badger3 and BadgerNet systems on the NNAP website (www.rcpch.ac.uk/nnap).

4.7 Survey of NNAP users

In spring 2014, NNAP ran an internet based poll of audit users to gauge opinion about a wide variety of topics. A high response rate was achieved, with respondents investing significant time and giving very useful feedback on questions, reporting and the outlier processes. The responses have already been useful in developing the audit and will be published on the NNAP website in due course.

4.8 NNAP and the National Neonatal Research Database

Neonatal data held in the National Neonatal Research Database (NNRD) are used for NNAP audit analyses. The NNRD is created at the NDAU using operational electronic patient records which are generated as part of routine clinical care in neonatal units across England and Wales. Data are extracted to the NDAU by Clevermed Ltd for all neonatal units that have granted approval via their Caldicott Guardians. By obtaining data from NNRD, the NNAP has reduced the burden of data recording to a once only process.

Watch out for updates from the NDAU and visit their website (www.imperial.ac.uk/ndau).

5. Future developments

5.1 Parent Reported Experience Measure (PREM) pilot

Capturing the patient/parent experience is an essential part of the assessment of the overall quality of a clinical service. NNAP has agreed with HQIP to re-pilot a PREM in the form of a questionnaire to parents or carers of infants admitted to NNU participating in the audit. Work on this will continue during 2014.

5.2 Clinical Reference Advisory Group

NNAP has agreed to develop a Clinical Reference Advisory Group (CRAG) as part of its two-year development plan, which was agreed with HQIP early in 2014. The aim of this group of clinicians will be to provide a clinicians perspective on NNAP, suggest, develop and implement new questions, and help provide critical review of previous questions. NNAP hopes to work constructively with clinicians through this body, BAPM and other contacts with the clinical community. If you have views on NNAP – share them with us.

5.3 Risk adjusted mortality

NNAP has been asked to consider whether reporting on risk adjusted mortality might be appropriate. NNAP will convene an expert group to discuss the potential rationale, means, mechanisms and reporting level of such a reporting exercise, as well as how any proposed reporting would fit with existing mortality reporting systems. This group will meet in autumn 2014, and will advise the Project Board. Decisions about whether and how to proceed with reporting risk adjusted mortality will be communicated via the NNAP newsletter.

5.4 Reporting on existing audit questions

The way NNAP reports on existing questions is likely to continue to evolve, after discussion with our stakeholders, Project Board and newly formed CRAG. One example of a planned change is that the attribution of 'responsibility' for arranging follow up has long been problematic. Although currently NNAP assigns babies to their unit of birth, from the 2014 data onwards, babies will be assigned to the unit of discharge, as opposed to the unit of birth. This is on the basis that units discharging babies are more likely, in the case of babies transferred antenatally, to be the unit most closely involved in long term follow up. Assigning 'responsibility' for arranging follow up is of course quite different to assuming that the developmental outcome of babies can be attributed to the birth, or discharging hospital – this is a much more complicated question.

5.5 New audit questions

NNAP welcome carefully thought out new questions, or revisions to existing questions. During 2014 a proposal for reporting on Chronic Lung Disease has been developed and the Project Board has agreed that this question will be analysed on the 2014 data. Pending discussions it is possible that this will be analysed on a three-year epoch, including data from 2013, 2014 and 2015, with a first report due in summer 2016. Details will be released in a NNAP newsletter when these are finalised.

Appendix A: NNAP unit leads

Everyone who works on a NNU can contribute to NNAP but we would particularly like to thank the NNAP unit leads for their hard work and hours of data checking to improve the accuracy and completeness of NNAP data.

Hospital	NNAP unit lead
Airedale General Hospital	Dr Matthew Babirecki
Alexandra Hospital (Redditch)	Dr Andrew Short
Arrowe Park Hospital	Dr Oliver Rackham
Barnet Hospital	Dr Tim Wickham
Barnsley District General Hospital	Dr Sana Hamdan
Basildon Hospital	Dr Aashish Gupta
Basingstoke and North Hampshire Hospital	Dr Ruth Wigfield
Bassetlaw District General Hospital	Dr Lai-Men Wong
Bedford Hospital	Dr Akwasi Osei-Yeboah
Birmingham City Hospital	Dr Julie Nycyk
Birmingham Heartlands Hospital	Dr Philip Simmons
Birmingham Women's Hospital	Dr Vishna Rasiah
Bradford Royal Infirmary	Dr Sam Oddie
Bronglais General Hospital	Dr Prem Pitchaikani
Broomfield Hospital	Dr Ahmed Hassan
Calderdale Royal Hospital	Ms Kath Barnes
Chase Farm Hospital	Dr Tim Wickham
Chelsea and Westminster Hospital	Dr Shu-Ling Chuang
Chesterfield Royal Hospital	Dr Aiwyne Foo
Colchester General Hospital	Dr Sarah Dalton
Conquest Hospital	Dr Jayaram Pai
Countess of Chester Hospital	Dr Stephen Brearey
Croydon University Hospital	Dr John Chang
Cumberland Infirmary	Dr Arshid Murad
Darent Valley Hospital	Dr Selywn D'Costa
Darlington Memorial Hospital	Dr El-Mehdi Garbash
Derriford Hospital	Dr Alex Allwood
Dewsbury and District Hospital	Dr Kallinath Shyamanur
Diana Princess of Wales Hospital (Grimsby)	Dr Pauline Adiotomre
Doncaster Royal Infirmary	Dr Sayed Ahmad
Dorset County Hospital	Dr Abby Deketelaere
Ealing Hospital	Dr Ramnik Mathur
East Surrey Hospital	Dr Abdul Khader
Eastbourne District General Hospital	Dr Imad Boles
Epsom General Hospital	Dr Kirsty Watts
Fairfield General Hospital	Dr Ruth Wakefield
Friarage Hospital	Dr Mithilesh Lal

Hospital	NNAP unit lead
Frimley Park Hospital	Ms Jennifer Lomas
Furness General Hospital	Dr Belal Abuzgia
George Eliot Hospital	Dr Mukta Jain
Glan Clwyd Hospital	Dr Ian Barnard
Glangwili General Hospital	Dr Prem Pitchaikani
Gloucestershire Royal Hospital	Dr Jennifer Holman
Good Hope Hospital	Dr Phil Simmons
Great Western Hospital	Dr Stanley Zengeya
Guy's and St Thomas' Hospital	Dr Karen Turnock
Harrogate District Hospital	Dr Chandra Jampala
Hereford County Hospital	Dr Helen Underhill
Hillingdon Hospital	Dr Michele Cruwys
Hinchingbrooke Hospital	Dr Hilary Dixon
Homerton Hospital	Dr Narendra Aladangady
Horton Hospital	Dr Naveen Shettihalli
Hull Royal Infirmary	Dr Chris Wood
Ipswich Hospital	Dr Matthew James
James Cook University Hospital	Dr Mithilesh Lal
James Paget Hospital	Dr Priyadarshan Ambadkar
John Radcliffe Hospital	Dr Eleri Adams
Kettering General Hospital	Ms Patti Rao
King George Hospital	Dr Khalid Mannan
King's College Hospital	Dr Abhimanu Lall
King's Mill Hospital	Dr Vibert Noble
Kingston Hospital	Dr Nader Elgharably
Lancashire Women and Newborn Centre, Burnley	Dr Meera Lama
Leeds General Infirmary	Dr Lawrence Miall
Leeds Neonatal Service	Dr Lawrence Miall
Leicester General Hospital	Dr Venkatesh Kairamkonda
Leicester Royal Infirmary	Dr Jonathan Cusack
Leighton Hospital	Dr Saravanan Jayachandran
Lincoln County Hospital	Dr Sudhakar Rao
Lister Hospital (Stevenage)	Dr Jonathan Kefas
Liverpool Women's Hospital	Dr Hafis Ibrahim
Luton and Dunstable Hospital	Dr Sateeshkumar Somisetty
Macclesfield District General Hospital	Dr Gail Whitehead
Manor Hospital	Dr Bangalore Satish
Medway Maritime Hospital	Dr Ghada Ramadan
Milton Keynes Foundation Trust Hospital	Dr Indranil Misra
Neville Hall	Dr Siddartha Sen
New Cross Hospital	Ms Bernie Williams
Newham General Hospital	Dr Imdad Ali
Norfolk and Norwich University Hospital	Dr David Booth

Hospital	NNAP unit lead
North Bristol Trust (Southmead)	Dr Paul Mannix
North Devon District Hospital	Dr Michael Selter
North Manchester General Hospital	Dr Nagesh Panasa
North Middlesex University Hospital	Dr Lesley Alsford
Northampton General Hospital	Dr Fiona Thompson
Northwick Park Hospital	Dr Prasanna Muniyappa
Nottingham City Hospital	Dr Lleona Lee
Nottingham University Hospital	Dr Stephen Wardle
Ormskirk District General Hospital	Dr Tim McBride
Peterborough City Hospital	Dr Seif Babiker
Pilgrim Hospital	Dr Margaret Crawford
Pinderfields General Hospital	Dr David Gibson
Poole Hospital NHS Foundation Trust	Dr Minesh Khashu
Prince Charles Hospital	Dr Ezzat Afifi
Princess Alexandra Hospital	Dr Elmo Thambapillai
Princess Anne Hospital	Dr Mike Hall
Princess of Wales Hospital	Dr Kate Creese
Princess Royal Hospital (Haywards Heath)	Dr Philip Amess
Princess Royal University Hospital	Dr Ali Bokhari
Queen Alexandra Hospital	Dr Huw Jones
Queen Charlotte's Hospital	Dr Sunit Godambe
Queen Elizabeth Hospital (Woolwich)	Dr Olutoyin Banjoko
Queen Elizabeth Hospital (King's Lynn)	Dr Susan Rubin
Queen Elizabeth Hospital (Gateshead)	Dr Anne Dale
Queen Elizabeth the Queen Mother Hospital	Dr Niraj Kumar
Queen's Hospital (Romford)	Dr Khalid Mannan
Queen's Hospital (Burton-on-Trent)	Dr Azhar Manzoor
Rosie Maternity Hospital	Dr Anna Curley
Rotherham District General Hospital	Dr Christine Harrison
Royal Albert Edward Infirmary	Dr Christos Zipitis
Royal Berkshire Hospital	Dr Peter DeHalpert
Royal Bolton Hospital	Dr Paul Settle
Royal Cornwall Hospital	Dr Paul Munyard
Royal Derby Hospital	Dr Mal Ratnayaka
Royal Devon and Exeter Hospital	Ms Susan Prosser
Royal Glamorgan Hospital	Dr Iyad Al-Muzaffar
Royal Gwent Hospital	Dr Siddartha Sen
Royal Hampshire County Hospital	Dr Simon Struthers
Royal Lancaster Infirmary	Dr Joanne Fedee
Royal Oldham Hospital	Dr Natasha Maddock
Royal Preston Hospital	Dr Richa Gupta
Royal Shrewsbury Hospital	Dr Alison Moore

Hospital	NNAP unit lead
Royal Surrey County Hospital	Ms Jane James
Royal Sussex County Hospital	Dr Philip Amess
Royal United Hospital (Bath)	Dr Steve Jones
Royal Victoria Infirmary (Newcastle upon Tyne)	Dr Alan Fenton
Russells Hall Hospital	Dr Anand Mohite
Salisbury District Hospital	Dr Nick Brown
Scarborough General Hospital	Dr Mazen Qunibi
Scunthorpe General Hospital	Dr James Devlin
Sheffield Children's Hospital	Dr Jenny Walker
Singleton Hospital	Dr Arun Ramachandran
South Tyneside District Hospital	Dr Rob Bolton
Southend Hospital	Ms Maureen Barnes
St George's Hospital (Tooting)	Dr Charlotte Huddy
St Helier Hospital	Dr Salim Yasin
St Mary's Hospital (Paddington)	Dr Sunit Godambe
St Mary's Hospital (Manchester)	Dr Aditya Rakhecha
St Mary's Hospital (Isle of Wight)	Dr Sian Butterworth
St Michael's Hospital (Bristol)	Dr Pamela Cairns
St Peter's Hospital (Chertsey)	Dr Peter Reynolds
St Richard's Hospital (Chichester)	Dr Timothy Taylor
Staffordshire General Hospital	Mrs Gina Hartwell
Stepping Hill Hospital	Dr Carrie Heal
Stoke Mandeville Hospital	Dr Sanjay Salgia
Sunderland Royal Hospital	Dr Majd Abu-Harb
Tameside General Hospital	Dr Jacqueline Birch
Taunton and Somerset Hospital	Dr Rebecca Mann
The Jessop Wing	Dr Alan Gibson
The Royal Free Hospital	Dr Vivienne van Someren
The Royal London Hospital	Dr Rainer Ebel
Torbay Hospital	Dr Mala Raman
Trafford General Hospital	Dr Dorothy Ridgway
Tunbridge Wells Hospital	Dr Hamudi Kisat
University College Hospital	Dr Giles Kendall
University Hospital Coventry	Dr Kate Blake
University Hospital Lewisham	Dr Jauro Kuna
University Hospital of Hartlepool	Dr Anil Gupta
University Hospital of North Durham	Dr Mehdi Garbash
University Hospital of North Staffordshire	Dr Kate Palmer
University Hospital of North Tees	Dr Bernd Reichert
University Hospital of South Manchester	Dr Gopi Vemuri
University Hospital of Wales	Dr Roshan Adappa
Victoria Hospital (Blackpool)	Dr Chris Rawlingson

Hospital	NNAP unit lead
Wansbeck General Hospital	Ms Joan Oliver
Warrington Hospital	Dr Delyth Webb
Warwick Hospital	Dr Semeer Kallaroth
Watford General Hospital	Dr Sankara Narayanan
West Cumberland Hospital	Dr Mahfud Ben-Hamida
West Middlesex University Hospital	Dr Elizabeth Eyre
West Suffolk Hospital	Dr Ian Evans
Wexham Park Hospital	Dr Rekha Sanghavi
Whipps Cross University Hospital	Dr Caroline Sullivan
Whiston Hospital	Dr Laweh Amegavie
Whittington Hospital	Dr Raoul Blumberg
William Harvey Hospital	Dr David Long
Withybush Hospital	Dr Vishwa Narayan
Worcestershire Royal Hospital	Dr Andrew Gallagher
Worthing Hospital	Dr Anil Garg
Wrexham Maelor Hospital	Dr Brendan Harrington
Yeovil District Hospital	Dr Megan Eaton
York District Hospital	Dr Guy Millman
Ysbyty Gwynedd	Dr Mike Cronin

Appendix B: 2013 audit dataset

The following table details the raw data fields that were used during analysis for the 2013 NNAP audit.

Fields used for:	Data field	Comment
General- used for multiple questions and determining eligible babies	Baby: Badger Patient Anonymised ID	Patient Identifier unique to the Badger system. Only units who have cared for a baby can find them when they search for their ID
	Baby: Date Of Birth	Not provided as a data item, but used as the basis for anonymised times in minutes (e.g. Time of birth=0, an hour after birth=60)
	Baby: Month Of Birth	Calendar month in which baby was born
	Baby: Year Of Birth	Calendar year in which baby was born
	Baby: Gestational Age At Birth (Weeks)	The baby's gestational age at birth in completed weeks
	Baby: Gestational Age At Birth (Days)	The number of days between whole weeks at the baby's time of birth
	Baby: Birth weight (g)	The baby's birth weight in grams
	Baby: Place Of Birth	Provided as a NHS organisation code and NDAU code
	Baby: NHS Number	Encrypted
	Mother: NHS Number	Encrypted; used to identify unique mothers
	Mother: Booked Place Of Delivery	Provided as a NHS organisation code and NDAU code
	Mother: Birth Order/Fetus Number	Identifies first twin, second twin, first triplet etc. Used to identify unique mothers when NHS number is missing
	Mother: Postcode	Provided as a Lower Layer Super Output Area code, used for case-mix adjustment exercise and used to identify unique mothers when NHS number is missing
	Mother: Birth Year	Provided as a calendar year, used for case-mix adjustment exercise and used to identify unique mothers when NHS number is missing
	Mother: Total Births This Pregnancy	Used to identify unique mothers when mother's NHS number is missing
	Admissions: Source Of Admission	Provided as a NHS organisation code and NDAU code
	Admissions: Admission Time	Provided as minutes from birth
	Admissions: Episode Number	The sequential episode for this neonatal admissions, based on all known neonatal admissions
	Admissions: Hospital Providing Care	Provided as a NHS organisation code and NDAU code
	Discharge: Discharge Status	Coded list representing different locations for neonatal discharge
	Discharge: Discharge Time	Provided as minutes from birth
	Discharge: Discharge Location	Provided as a NHS organisation code and NDAU code
	Discharge: Discharge Ward	The type of ward the baby is being discharged to (where applicable)

Fields used for:	Data field	Comment
Question 1- Admission temperature	Admission: Was Temperature Taken After Admission? (Yes/No/Unknown)	
	Admission: Was The Baby's Temperature Recordable? (Yes/No)	Babies with an un-recordable temperature were excluded form analysis
	Admission: Admission Temperature Time (Date And Time)	Provided as minutes from birth
	Admission: Admission Temperature Value (°C)	Valid range 25-42
Question 2- Antenatal steroids	Mother: Were Antenatal Steroids Given? (Yes/No/Unknown)	
	Mother: Was A Complete Course Of Steroids Given? (Complete/Incomplete/No/Unknown)	
Question 3- ROP screening	Ad Hoc: Time Of ROP Screening (Date And Time)	Provided as minutes from birth
	Daily Data: ROP Screen today	Provided as minutes from birth
Question 4- Mother's milk at discharge	Daily Data: Date Of Day Of Care (Date And Time)	Provided as minutes from birth (Time=midnight at the beginning of the day
	Daily Data: Enteral Feeds	Coded list representing different forms of enteral feed
	Discharge: Discharge Milk	Used for case-mix adjustment exercise
	Mother: Smoking In Pregnancy	Used for case-mix adjustment exercise
	Mother: Number Of Previous Pregnancies	Used for case-mix adjustment exercise
	Mother: Marital Status	Used for case-mix adjustment exercise
Question 5- First consultation after admission	Admission: Was There A Consultation By A Senior Member Of Staff With Parents/Carers After Admission? (Yes/No/Unknown)	
	Admission: Parents Seen By A Senior Member Of Staff (Date And Time)	Provided as minutes from birth
	Daily Data: Location of care	Marks the dominant location of care for the baby in this 24 hour period. Used to identify and exclude babies who were not receiving care on the neonatal unit on the day of admission
	Daily Data: HRG	Provides the level of neonatal of care for the 24 hours period based on HRG 4 categories. Used to identify and exclude babies who were not receiving a specified level of neonatal care on the day of admission

Fields used for:	Data field	Comment
Question 6- Transfers within network	-	No unique fields used for this question: only 'General fields' were required
Question 7- Two-year follow up	Other: 2 Year Outcomes (Separate Table)	Complete two-year outcomes data, including all of the fields on the TRPG/SEND/NNAP two-year Corrected Age Outcome Form and why, if applicable, the baby was lost to follow up
Question 8- Blood and CSF cultures	Ad-Hoc: Time Of Culture (Date And Time)	Provided as minutes from birth
	Ad-Hoc: Type Of Culture Taken	
	Ad-Hoc: Clinical Signs Present When Culture Was Taken	
	Ad-Hoc: Pathogen Results	
Question 9- Encephalop-athy	Daily Data: Date Of Day Of Care	Provided as minutes from birth (times=midnight at the beginning of the day); analysis of this question not included in 2013
	Daily Data: Neurological Tone	Analysis of this question not included in 2013
	Daily Data: Neurological Consciousness	Analysis of this question not included in 2013
	Daily Data: Convulsions Today? (Yes/No)	Analysis of this question not included in 2013
	Daily Data: Therapuetic Hypothermia? (Yes/No)	'Cooling'; Analysis of this question not included in 2013
Question 11- CABSI	Daily Data: Date Of Day Of Care	Provided as minutes from birth (times=midnight at the beginning of the day)
	Daily Data: Line Inserted Today	
	Ad-Hoc: Time Of Culture	Provided as minutes from birth
	Ad-Hoc: Type Of Culture Taken	
	Ad-Hoc: Clinical Signs Present When Culture Was Taken	
	Ad-Hoc: Pathogen Results	

Appendix C: Participating units

Units represented in this report by less than 12 months of data are indicated by an asterisk (*).

NNU name	NNU level	Number of completed episodes of care included	Number of distinct babies included
Alexandra Hospital	SCU	231	212
Bassetlaw District General Hospital	SCU	131	127
Bedford Hospital	SCU	383	354
Chase Farm Hospital *	SCU	227	213
Conquest Hospital	SCU	331	297
Cumberland Infirmary	SCU	230	218
Darent Valley Hospital	SCU	770	694
Darlington Memorial Hospital	SCU	428	402
Dewsbury and District Hospital	SCU	273	249
Ealing Hospital	SCU	252	237
Eastbourne District General Hospital *	SCU	80	74
Epsom General Hospital	SCU	187	173
Frimley Park Hospital	SCU	663	631
Furness General Hospital	SCU	104	97
George Eliot Hospital	SCU	204	177
Good Hope Hospital	SCU	615	579
Harrogate District Hospital	SCU	169	158
Hereford County Hospital	SCU	230	215
Hinchingbrooke Hospital	SCU	205	199
James Paget Hospital	SCU	285	276
King George Hospital	SCU	193	185
King's Mill Hospital	SCU	270	252
North Devon District Hospital	SCU	209	198
North Manchester General Hospital	SCU	438	405
Oxford University Hospitals, Horton Hospital	SCU	160	145
Pilgrim Hospital	SCU	318	304
Princess Royal Hospital	SCU	261	242
Princess Royal University Hospital	SCU	325	282
Queen Elizabeth Hospital, Gateshead	SCU	222	210
Queen Elizabeth The Queen Mother Hospital	SCU	428	409
Royal Surrey County Hospital	SCU	631	595
Scarborough General Hospital	SCU	200	178
South Tyneside District Hospital	SCU	91	86
Staffordshire General Hospital	SCU	859	849
The Royal Free Hospital	SCU	357	342
Torbay Hospital	SCU	320	305

NNU name	NNU level	Number of completed episodes of care included	Number of distinct babies included
University Hospital Of North Durham	SCU	580	546
Wansbeck General Hospital	SCU	348	321
Warwick Hospital	SCU	336	304
West Cumberland Hospital	SCU	185	164
West Middlesex University Hospital	SCU	436	413
West Suffolk Hospital	SCU	380	354
Worthing Hospital	SCU	514	481
Yeovil District Hospital	SCU	173	157
Ysbyty Gwynedd	SCU	175	169
Airedale General Hospital	LNU	211	201
Barnet Hospital	LNU	436	404
Barnsley District General Hospital	LNU	301	280
Basildon Hospital	LNU	387	367
Basingstoke and North Hampshire Hospital	LNU	276	254
Bronglais General Hospital	LNU	11	11
Broomfield Hospital	LNU	447	423
Calderdale Royal Hospital	LNU	494	471
Chesterfield and North Derbyshire Royal Hospital	LNU	319	309
City Hospital	LNU	921	895
Colchester General Hospital	LNU	389	356
Countess Of Chester Hospital	LNU	453	438
Croydon University Hospital	LNU	492	472
Diana Princess Of Wales Hospital	LNU	833	802
Doncaster Royal Infirmary	LNU	361	332
Dorset County Hospital	LNU	255	246
East Surrey Hospital	LNU	434	424
Glangwili General Hospital	LNU	151	142
Gloucestershire Royal Hospital	LNU	538	511
Great Western Hospital	LNU	391	364
Hillingdon Hospital	LNU	373	346
Ipswich Hospital	LNU	544	517
Kettering General Hospital	LNU	313	297
Kingston Hospital	LNU	418	395
Leighton Hospital	LNU	271	257
Lincoln County Hospital	LNU	619	592
Lister Hospital	LNU	940	906
Macclesfield District General Hospital	LNU	131	119
Manor Hospital	LNU	556	538
Milton Keynes Foundation Trust Hospital	LNU	390	370
Nevill Hall Hospital	LNU	268	251

NNU name	NNU level	Number of completed episodes of care included	Number of distinct babies included
Newham General Hospital	LNU	519	481
North Middlesex University Hospital	LNU	348	323
Northampton General Hospital	LNU	343	327
Northwick Park Hospital	LNU	574	536
Ormskirk District General Hospital	LNU	345	326
Peterborough City Hospital	LNU	1000	956
Pinderfields General Hospital	LNU	346	323
Poole Hospital NHS Foundation Trust	LNU	364	336
Prince Charles Hospital	LNU	194	180
Princess Alexandra Hospital	LNU	401	385
Princess Of Wales Hospital	LNU	268	251
Queen Elizabeth Hospital, King's Lynn	LNU	340	327
Queen Elizabeth Hospital, Woolwich	LNU	336	303
Queen's Hospital, Burton On Trent	LNU	208	198
Queen's Hospital, Romford	LNU	927	879
Rotherham District General Hospital	LNU	239	217
Royal Albert Edward Infirmary	LNU	311	288
Royal Berkshire Hospital	LNU	511	479
Royal Cornwall Hospital	LNU	570	557
Royal Derby Hospital	LNU	433	406
Royal Devon and Exeter Hospital	LNU	584	550
Royal Glamorgan Hospital	LNU	294	269
Royal Hampshire County Hospital	LNU	362	342
Royal Lancaster Infirmary	LNU	171	160
Royal Shrewsbury Hospital	LNU	800	790
Royal United Hospital	LNU	578	547
Russells Hall Hospital	LNU	619	585
Salisbury District Hospital	LNU	253	239
Scunthorpe General Hospital	LNU	711	678
Southend Hospital	LNU	453	420
St Helier Hospital	LNU	484	470
St Mary's Hospital, IOW	LNU	216	207
St Mary's Hospital, London	LNU	293	278
St Richard's Hospital	LNU	670	643
Stepping Hill Hospital	LNU	310	291
Stoke Mandeville Hospital	LNU	444	409
Tameside General Hospital	LNU	233	214
Taunton and Somerset Hospital	LNU	461	430
Tunbridge Wells Hospital	LNU	628	599
University Hospital Lewisham	LNU	415	397

NNU name	NNU level	Number of completed episodes of care included	Number of distinct babies included
University Hospital Of South Manchester	LNU	374	355
Victoria Hospital, Blackpool	LNU	369	356
Warrington Hospital	LNU	338	321
Watford General Hospital	LNU	1250	1216
Wexham Park Hospital	LNU	552	518
Whipps Cross University Hospital	LNU	382	355
Whiston Hospital	LNU	304	287
Whittington Hospital	LNU	2066	2041
Withybush Hospital	LNU	121	109
Worcestershire Royal Hospital	LNU	578	565
York District Hospital	LNU	336	313
Arrowe Park Hospital	NICU	358	352
Birmingham Heartlands Hospital	NICU	1229	1194
Birmingham Women's Hospital	NICU	1277	1206
Bradford Royal Infirmary	NICU	719	684
Chelsea and Westminster Hospital	NICU	679	657
Derriford Hospital	NICU	1101	1045
Glan Clwyd Hospital	NICU	302	296
Guy's and St Thomas' Hospital	NICU	864	822
Homerton Hospital	NICU	736	693
Hull Royal Infirmary	NICU	503	492
James Cook University Hospital[1]	NICU	408	370
King's College Hospital	NICU	603	582
Lancashire Women and Newborn Centre	NICU	546	525
Leeds Neonatal Service[2]	NICU	1607	1568
Leicester Neonatal Service[3]	NICU	1203	1121
Liverpool Women's Hospital	NICU	945	941
Luton and Dunstable Hospital	NICU	877	831
Medway Maritime Hospital	NICU	937	907
New Cross Hospital	NICU	892	868
Norfolk and Norwich University Hospital	NICU	1095	1074
North Bristol NHS Trust (Southmead)	NICU	2436	2402
Nottingham City Hospital	NICU	666	615
Nottingham University Hospital (QMC)	NICU	644	598
Oxford University Hospitals, John Radcliffe Hospital	NICU	886	853
Princess Anne Hospital	NICU	798	764
Queen Alexandra Hospital	NICU	545	511
Queen Charlotte's Hospital	NICU	430	410
Rosie Maternity Hospital, Addenbrookes	NICU	957	936
Royal Bolton Hospital	NICU	604	582

NNU name	NNU level	Number of completed episodes of care included	Number of distinct babies included
Royal Gwent Hospital	NICU	442	422
Royal Oldham Hospital	NICU	629	570
Royal Preston Hospital	NICU	495	473
Royal Sussex County Hospital	NICU	497	473
Royal Victoria Infirmary	NICU	639	607
Singleton Hospital	NICU	361	350
St George's Hospital	NICU	2111	2093
St Mary's Hospital, Manchester	NICU	941	911
St Michael's Hospital	NICU	2622	2494
St Peter's Hospital	NICU	785	767
Sunderland Royal Hospital	NICU	351	339
The Jessop Wing, Sheffield	NICU	983	961
The Royal London Hospital	NICU	578	543
University College Hospital	NICU	767	709
University Hospital Coventry	NICU	563	522
University Hospital Of North Staffordshire	NICU	549	538
University Hospital Of North Tees	NICU	312	301
University Hospital Of Wales	NICU	467	446
William Harvey Hospital	NICU	529	501
Wrexham Maelor Hospital	NICU	208	200

1. Data from James Cook University Hospital includes that of Friarge Hospital
2. Data from Leeds Neonatal Service includes data from Leeds General Hospital and St Jame's Hospital
3. Data from Leicester Neonatal Service includes data from Leicester Royal Infirmary and Leicester General Hospital

Appendix D: TRPG/SEND/NNAP 2–YEAR CORRECTED AGE OUTCOME FORM

Name & Designation of person completing form _____

Hospital of Birth _____

Infant's name _____ Infant's NHS No _____

Date of Birth _____/_____/_____ Date of assessment _____/_____/_____

Gestation at birth (completed weeks) _____ Sex: Male / Female

Reason if child not assessed: Deceased post discharge / lost to follow up

Full *Current* Post Code _____ Date of death if applicable ____/____/____

Birth weight_____ Current hospital of follow up: _____

PLEASE DO NOT COMPLETE THIS FORM IF THE CHILD IS ACUTELY ILL

	1. Neuromotor:	**No**	**Yes**	**Don't Know**
	a. Does this child have any difficulty walking?			
	b. Is this child's gait non-fluent or abnormal reducing mobility?			
■	c. **Is this child unable to walk without assistance**?			
	d. Is this child unstable or needs to be supported when sitting?			
■	e. **Is this child unable to sit?**			
	f. Does this child have any difficulty with the use of one hand?			
	g. Does this child have difficulty with the use of both hands?			
■	h. **Is this child unable to use hands (i.e. to feed)?**			
	2. Malformations:			
	a. Does this child have a malformation identified at birth/ within the first 2yrs?			
■	b. **Does this malf'ion impair daily activities despite assistance?**			
	3. Respiratory & CVS system:			
	a. Does this child have limited exercise tolerance with or without treatment?			
■	**b. Does child require supplemental O_2/other respiratory support**			
	4. Gastro-intestinal Tract:			
	a. Is this child on a special diet? If yes, what diet:_____			
	b. Does this child have a stoma?			
■	**c. Does this child require TPN, NG or PEG feeding?**			
	5. Renal:			
	a. Does this child have renal impairment, no treatment?			
	b. Is this child on dietary or drug treatment for renal impairment?			
■	**c. Is this child having renal dialysis/awaiting renal transplant?**			

	6. Neurology:	**No**	**Yes**	**Don't know**
	a. Has this child had a fit or seizure in the past 12 months?			
	b. Is this child on any anticonvulsants?			
■	**c. Has this child had more than 1 seizures a month despite treatment?**			
	d. Has this child ever had ventriculo-peritoneal shunt inserted?			
	7. Growth: *Give date of measurements if different from date of assessment* _____			
	Weight _____ kg Date _____ Length _____ cm Date _____ Head circumference _____ cm Date _____			
	8. Development	**No**	**Yes**	**Don't Know**
	a. Is the child's development between 3-6 months behind corrected age?			
	b. Is the child's development between 6-12 months behind corrected age?			
■	**c. Is the child's development > 12 months behind corrected age?**			
	d. Will you be referring the child for a detailed neurodevelopmental assessment?			
	e. If child had detailed neurodevelopmental assessment, provide name of the test:			
	9. Neurosensory:			
	a. Does this child have a hearing impairment?			
	b. Does this child have hearing impairment corrected by aids?			
■	**c. Does this child have hearing impairment not correctable with aids?**			
	d. Does this child have any visual problems (including squint)?			
	e. Does this child have visual defect that is not fully correctable?			
■	**f. Is this child blind or sees light only?**			
	10. Communication			
	a. Does this child have any difficulty with communication?			
	b. Does this child have difficulty with speech (<10 words/signs)?			
■	**c. Does the child have <5 meaningful words, vocalisations or signs?**			
	d. Does this child have difficulty with understanding outside of familiar context?			
	e. Is this child unable to understand words or signs?			
	Special Questions:			
	a. Is this child on at-risk register, fostered or adopted?			
	b. Was this child difficult to test? If yes, circle appropriate below: (a) tired, (b) poor attention, (c) difficult to engage, (d) other			

Appendix E: NNAP audit questions 2014

1. Do all babies of less than or equal to 28^{+6} weeks gestation have their temperature taken within the first hour after birth?

2. Are all mothers who deliver their babies between 24^{+0} and 34^{+6} weeks gestation given any dose of antenatal steroids?

3. Do all babies <1,501g or a gestational age at birth $<32^{+0}$ weeks at birth undergo the first Retinopathy of Prematurity (ROP) screening in accordance with the current guideline recommendations?

4. What proportion of babies of $<33^{+0}$ weeks gestation at birth were receiving any of their own mother's milk at discharge to home from a neonatal unit?

5. Is there a documented consultation with parents/carers by a senior member of the neonatal team within 24 hours of admission?

6. Are all babies who require transfer out of a unit kept within their own Network, except where clinical reasons dictate otherwise?

7. Are rates of normal survival at two years comparable in similar babies in similar units? (in 2014 we are auditing babies of $<30^{+0}$ gestation at birth.)

8. What percentage of babies admitted to a neonatal unit have:

    a) one or more episodes of a pure growth of a pathogen from blood
    b) one or more episodes of a pure growth of a pathogen from CSF
    c) either a pure growth of a skin commensal or a mixed growth with $\geq$3 clinical signs at the time of blood sampling

9. What percentage of babies of more than or equal to 35^{+0} weeks gestation have an encephalopathy within the first three full calendar days after birth?

10. How many blood stream infections[a] are there on a NNU per 1,000 days of central line[b] care?

[a]The growth of a recognised pathogen in pure culture, or in the case of a mixed growth, or growth of skin commensal, the added requirement for 3 or more of 10 predefined clinical signs

[b] central line = UAC, UVC, percutaneous long line or surgically inserted long line.

Appendix F: Organisms reported to NNAP during 2013

Organisms reported to National Neonatal Audit Programme in the course of 2013 have been classified as either 'recognised pathogens' or 'other organism (including skin commensals),' recognising that the 'other organisms' may also be pathogens, for the analyses in audit questions 8 and 10 (Table 1). This list originated from the National Patient Safety Agency (NPSA) Matching Michigan project, a quality improvement initiative on neonatal units to lower catheter associated bloodstream infections*.

*Andrew Dodgson, Consultant Microbiologist at Central Manchester University Hospital NHS Foundation Trust

Table 1 Organisms reported for the 2013 audit

'Recognised pathogens'		
Acinetobacter sp.	*Enterobacter agglomerans*	*Pseudomonas aeruginosa*
Acinetobacter baumanii	*Enterobacter aerogenes*	*Salmonella sp.*
Acinetobacter lwoffii	*Enterobacter cloacae*	*Serratia sp.*
'Anaerobes'	*Enterococcus faecalis*	*Serratia liquefaciens*
Candida sp.	*Enterococcus faecium*	*Serratia marcescens*
Candida albicans	*Haemophilus sp.*	*Staphylococcus aureus*
Candida dubliniensis	*Haemophilus influenzae*	Methicillin-resistant
Candida glabrata	*Haemophilus parainfluenzae*	*Staphylococcus aureus (MRSA)*
Candida parapsilosis	*Klebsiella sp.*	*Stenotrophomonas maltophilia*
Candida tropicalis	*Klebsiella aerogenes*	αHaemolytic Streptococci
Citrobacter sp.	*Klebsiella oxytoca*	*Streptococcus pneumoniae*
Citrobacter freundii	*Klebsiella pneumoniae*	ßHaemolytic Streptococci
Clostridium sp.	*Listeria sp.*	*Group B - Streptococcus*
Clostridium perfringens	*Listeria monocytogenes*	*Streptococcus agalactiae*
'Coliform'	*Morganella morganii*	*Streptococcus milleri*
Corynebacterium diphtheriae	*Nocardia asteroides*	*Streptococcus anginosus*
Escherischia coli (E. coli)	*Proteus mirabilis*	
Enterobacter sp.		

'Other organisms (including skin commensals)'		
Actinomyces bovis	*Micrococcus sp.*	*Staphylococcus epidermidis*
Bacillus sp.	*Moraxella catarrhalis*	*Staphylococcus haemolytics*
Bacillus cereus	*Mycoplasma hominis*	*Staphylococcus saprophyticus*
Chryseobacterium sp.	*Neisseria sp. (excl N. meningitides, N. gonorrhoeae)*	*Staphylococcus,* Coagulase Negative
Corynebacterium sp. (excl C. diphtheria)	*Peptostreptococcus sp.*	*Streptococcus sp.*
Corynebacterium striatum	*Prevotella sp.*	*Streptococcus bovis*
Diptheriods	*Pseudomonas sp. (except P. aeruginosa)*	*Streptococcus mitis*
Eikenella corrodens	*Pseudomonas stutzeri*	*Streptococcus oralis*
Enterococcus sp.	*Staphylococcus sp.*	*Streptococcus salivarius*
Enterococcus sp.	*Staphylococcus epidermidis*	*Streptococcus sanguis*
Flavobacterium sp.		*Streptococcus viridans*
Gemella morbilarum		*Ureaplasma*
Lactobacillus sp.		
Lactococcus sp.		

Royal College of
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