

NNAP report 2013 – What does this show for the SSBCNN?

Question 1 – Do all babies < or = to 28+6 weeks gestation have their temperature taken within the 1st hour of birth?

Standard – 98-100% (of which 90% 36.6C – 37.5C and 10% 36.0C – 36.5C)

Temperatures taken within an hour 2012

Unit	Eligible babies	Temp within hour	After hour	Missing data
National level 1	179	150 (84%)	7 (4%)	22 (12%)
Stafford	1	1 (100%)	0	0
National level 2	1006	905 (90%)	50 (5%)	51 (5%)
RHH	18	13 (72%)	2 (11%)	3 (17%)
Manor	19	19 (100%)	0	0
SaTH	26	25 (96%)	1 (4%)	0
National level 3	1798	1605 (89%)	110 (6%)	83 (5%)
UHNS	39	38 (97%)	1 (3%)	0
NXH	53	49 (92%)	2 (4%)	2 (4%)
Total nationally	2983	2660 (88%)	167 (6%)	156 (5%)
Network	156	145 (93%)	6 (4%)	5 (3%)

Temperatures taken within an hour 2013

Unit	Eligible babies	Temp within hour	After hour	Missing data/ not taken
National SCU	162	144 (89%)	9	9
Stafford	1	1 (100%)	0	0
National LNU	801	749 (94%)	31	21
RHH	10	10 (100%)	0	0
Manor	17	16 (94%)	0	1
SaTH	15	15 (100%)	0	0
National NICU	1913	1779 (93%)	89	45
UHNS	35	35 (100%)	0	0
NXH	24	20 (83%)	2	2
Total nationally	2908	2699 (93%)	133	76
Network	102	97 (95%)	2	3

Admission temperatures 2012

Unit	Eligible babies	<32.0	32.0 – 35.9	36.0 – 36.5	36.6 – 37.5	>37.5
National SCU	150	0	23 (15%)	57 (38%)	57 (38%)	13 (9%)
National LNU	905	1	153 (17%)	228 (25%)	422 (47%)	101 (11%)
National NICU	1605	0	225 (14%)	441 (27%)	742 (46%)	197 (12%)
Total nationally	2660	1	411 (15%)	726 (27%)	1221 (46%)	311 (12%)

Admission temperatures 2013

Unit	Eligible babies	<32.0	32.0 – 35.9	36.0 – 36.5	36.6 – 37.5	>37.5
National SCU	160	0	18(11%)	43(27%)	81(51%)	18
Stafford	1	0	0	0	1 (100%)	0
National LNU	731	0	114(16%)	217(30%)	329(45%)	71
RHH	10	0	0	2(20%)	5(50%)	3(30%)
Manor	16	0	8(50%)	4(25%)	4(25%)	0
SaTH	15	0	2(13%)	7(47%)	6(40%)	0
National NICU	1725	1	179 (10%)	489 (28%)	826 (48%)	230 (13%)
UHNS	35	0	9(26%)	6(17%)	15(43%)	5
NXH	20	0	2 (10%)	5 (25%)	10 (50%)	3 (15%)
Total nationally	2699	2	334 (12%)	771 (29%)	1267 (47%)	325 (12%)
Network	97	0	21 (22%)	24 (25%)	41 (42%)	11 (11%)

- Nationally 93% of babies had their temperature taken within an hour of birth, in SSBCNMN it was 95%, this is a 2% improvement and we have remained above the national average
- In 2012 individual unit and Network results were not published for actual temperatures
- These results show that as a Network we are good at taking the temperatures within the first hour and improved in 2012 and again in 2013
- However we are generally underperforming in thermoregulation compared to national results.

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

Standard – 85%

Results 2012

Unit	Eligible mothers	Steroids given	Steroids not given	Missing data
National level 1	2217	1670 (75%)	454 (21%)	93 (4%)
Stafford	37	28 (76%)	8 (22%)	1 (2%)
National level 2	7139	5716 (80%)	1297 (18%)	126 (2%)
RHH	118	74 (63%)	44 (37%)	0
Manor	123	106 (86%)	17 (14%)	0
SaTH	106	82 (77%)	24 (23%)	0
National level 3	6993	5836 (83%)	1039 (15%)	118 (2%)
UHNS	140	116 (83%)	23 (16%)	1 (1%)
NXH	155	128 (83%)	23 (15%)	4 (6%)
Total nationally	16349	13222 (80%)	2790 (17%)	337 (2%)
Network	679	534 (79%)	139 (20%)	6 (1%)

Results 2013

Unit	Eligible mothers	Steroids given	Steroids not given	Missing/ unknown data
National level 1	2116	1673(79%)	398	45
Stafford	24	22(92%)	2	0
National level 2	7100	6009(85%)	1006	85
RHH	103	73(71%)	30	0
Manor	130	107(82%)	22	1
SaTH	122	94(77%)	27	1
National level 3	7543	6377 (85%)	1085	81
UHNS	134	120(90%)	14	0
NXH	127	120 (94%)	6	1
Total nationally	16992	14142 (83%)	2634	216
Network	640	536 (84%)	101	3

- Nationally 83% of mothers received steroids, in SSBCNN it was comparable at 84%, an improvement both nationally and in the network of 5%
- As a Network we are now just under the standard, if we have a similar improvement next year we may hopefully reach the standard

Question 3 – Do all babies <1501g or gestational age at birth <32+0 weeks and still an inpatient undergo 1st ROP screening in accordance with the current guideline recommendations? (for NNAP analysis an extra week either side of the guidance is allowed.)

**Standard - 100% of eligible babies
Results 2012 (in or outpatient)**

Unit	Eligible babies	No. babies screened	On time	Early	Late	Not screened
National level 1	1035	636 (61%)	520 (50%)	21 (2%)	95 (9%)	399 (39%)
Stafford	16	15 (94%)	11 (69%)	1 (6%)	3 (19%)	1 (6%)
National level 2	3354	2690 (80%)	2261(67%)	49 (1%)	380 (11%)	664 (20%)
RHH	51	24 (47%)	17 (33%)	0	7 (14%)	27 (53%)
Manor	52	48 (92%)	44 (85%)	0	4 (8%)	4 (8%)
SaTH	66	66 (100%)	66 (100%)	0	0	0
National level 3	3607	2986 (83%)	2538(70%)	52 (1%)	396 (11%)	621 (17%)
UHNS	91	81 (89%)	76 (84%)	2 (2%)	3 (3%)	10 (11%)
NXH	82	81 (99%)	76 (93%)	5 (6%)	0	1 (1%)
Total nationally	7996	6312(79%)	5319(67%)	122 (2%)	871(11%)	1684 (21%)
Network	358	315 (88%)	289 (81%)	8 (2%)	18 (5%)	43 (12%)

Results 2013

Unit	Eligible babies	No. babies screened	On time	Early	Late	Not screened/ not documented
National SCU	943	825(87%)	750(80%)	19(2%)	56(6%)	118(13%)
Stafford	12	12(100%)	12(100%)	0	0	0
National LNU	3301	3093(94%)	2899(88%)	31(1%)	163(5%)	208(6%)
RHH	47	45(96%)	43(91%)	0	2(4%)	2(4%)
Manor	49	38(78%)	37(76%)	0	1 (2%)	11(22%)
SaTH	39	39(100%)	38(97%)	1(3%)	0	0
National NICU	3756	3579 (95%)	3346(89%)	20 (1%)	213 (6%)	177 (5%)
UHNS	68	64(94%)	64(94%)	0	0	4(6%)
NXH	57	57 (100%)	57 (100%)	0	0	0
Total nationally	8000	7497 (94%)	6995(87%)	70 (1%)	432 (5%)	503 (6%)
Network	272	255 (94%)	251 (92%)	1 (0%)	3 (1%)	17 (6%)

- Nationally 94% of babies are screened, 87% on time, this is a huge improvement on 2012
- In SSBCNMN we equal this with 94% of babies screened and 92% on time, again a good improvement on 2012
- New Cross was identified as one of only 22 units nationally meeting the 100% standard.

Question 4 – What proportion of babies <33+0 weeks gestation at birth are receiving their mother’s milk when discharged from a neonatal unit?

Standard - Benchmarking

Results 2012

Unit	Eligible babies	EBM only	Mixed feeding	Formula only	Missing data
National level 1	500	180 (36%)	130 (26%)	186 (37%)	4 (1%)
Stafford	7	6 (86%)	0	1 (14%)	0
National level 2	2742	879 (32%)	727 (27%)	1113 (41%)	23 (1%)
RHH	50	11 (22%)	7 (14%)	32 (64%)	0
Manor	60	8 (13%)	18 (30%)	34 (57%)	0
SaTH	49	17 (35%)	15 (31%)	16 (33%)	1 (2%)
National level 3	2436	825 (34%)	530 (22%)	1072 (44%)	9 (0%)
UHNS	81	13 (16%)	21 (26%)	47 (58%)	0
NXH	58	18 (31%)	8 (14%)	32 (55%)	0
Total nationally	5678	1884 (33%)	1387 (24%)	2371 (42%)	36 (1%)
Network	305	73 (24%)	69 (23%)	162 (53%)	1 (0%)

Results 2013

Unit	Eligible babies	EBM only	Mixed feeding	Formula only	Missing data
National SCU	492	173(35%)	99(20%)	220(45%)	0
Stafford	5	1(20%)	0	4(80%)	0
National LNU	2779	1022(37%)	694(25%)	1050(38%)	13
RHH	40	13(33%)	2(5%)	25(63%)	0
Manor	59	10(17%)	13(22%)	36(61%)	0
SaTH	53	18(34%)	10(19%)	25(47%)	
National NICU	2649	924(35%)	597(23%)	1123(42%)	5
UHNS	67	23(34%)	9(13%)	35(52%)	0
NXH	42	18(43%)	6(14%)	18(43%)	0
Total nationally	5920	2119(36%)	1390(23%)	2393(40%)	18
Network	266	83(31%)	40(15%)	143(54%)	0

- Nationally 59% of babies go home on some breast milk, in SSBCNN this is only 46%, the national percentage has marginally increased but the Network's remains static. However of note the rate of EBM only has increased with a decrease in mixed feeding
- NXH has improved their rates of exclusive breastfeeding at discharge by 12% following being a previous outlier - are their lessons to be learnt?
- Our documentation is good with no missing data

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

Standard – 100%

2012

Unit	Eligible babies	Within 24 hours	After 24 hours	Before admission	No consultation	Missing data
National level 1	8942	6516 (73%)	206 (2%)	875 (10%)	381 (4%)	964 (11%)
Stafford	152	145 (95%)	0	7 (5%)	0	0
National level 2	24587	20260 (82%)	666 (3%)	1660 (7%)	815 (3%)	1186 (5%)
RHH	377	263 (70%)	14 (4%)	37 (10%)	25 (7%)	38 (10%)
Manor	400	350 (88%)	28 (7%)	3 (1%)	14 (4%)	5 (1%)
SaTH	316	296 (94%)	9 (3%)	11 (3%)	0	0
National level 3	20880	16016 (77%)	882 (4%)	1630 (8%)	950 (5%)	1402 (7%)
UHNS	366	354 (97%)	5 (1%)	4 (1%)	3 (1%)	0
NXH	327	260 (80%)	10 (3%)	22 (7%)	21 (6%)	14 (4%)
Total nationally	54409	42792 (79%)	1754 (3%)	4165 (8%)	2146 (4%)	3552 (7%)
Network	1938	1668 (86%)	66 (3%)	84 (4%)	63 (3%)	57 (3%)

2013

Unit	Eligible babies	Within 24 hours	After 24 hours	Before admission	No consultation	Missing data
National level 1	7213	5702(79%)	187 (3%)	471 (7%)	235 (3%)	618 (9%)
Stafford	128	122 (95%)	1 (1%)	4 (3%)	1 (1%)	0
National level 2	22435	19322(86%)	530 (2%)	829 (4%)	564 (3%)	1190 (5%)
RHH	338	295(87%)	10 (3%)	8 (2%)	10 (3%)	15 (4%)
Manor	379	298(79%)	22 (6%)	10 (3%)	37 (10%)	12 (3%)
SaTH	346	326(94%)	5 (1%)	15 (4%)	0	0
National level 3	21109	17783(84%)	669(3%)	973(5%)	756(4%)	928(4%)
UHNS	372	359(97%)	0	0	13 (3%)	0
NXH	309	249(81%)	10 (3%)	23 (7%)	18 (6%)	9 (3%)
Total nationally	50757	42807(84%)	1386 (3%)	2273 (4%)	1555 (3%)	2736 (5%)
Network	2128	1924(90%)	28(1%)	47(2%)	34(2%)	95(4%)

- Nationally 84% of parents are seen within 24 hours of a first episode, in SSBCNN 90% are seen, an improvement has been seen both nationally and within the network
- Our documentation is generally good however there is room for improvement at NXH and Manor who are below national average.
- There may be points to be learnt from UHNS and SaTH who are very good.

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

Standard – over 90% of neonatal transfers

- Nationally 9% of all babies are involved in a transfer and 19% of these are outside of network, these figures are comparable with 2012
- In SSBCNN only 4% of babies are involved in a transfer but 33% of these are outside of network, because of our geography many of these may still have been within recognised care pathways and this is acknowledged in the report, again this figure shows an increase of 7% compared to 2012

Question 7 – Are rates of normal survival at two years comparable in similar babies from similar neonatal units?

Standard – 100% of eligible babies (<30 weeks born between July 2010 and June 2011)

Neurodevelopment 2013

	Eligible babies	Impairment not determinable	No impairment	Mild/moderate impairment	Severe impairment	No data
RHH	19	5 (26%)	3 (16%)	1 (5%)	2 (11%)	8
Manor	28	4 (14%)	8 (29%)	7 (25%)	3 (11%)	6
SaTH	26	3 (12%)	3 (12%)	1 (4%)	1 (4%)	18
UHNS	24	1 (4%)	2 (8%)	1 (4%)	1 (4%)	18
NXH	46	20 (43%)	0	0	2 (4%)	24
SSBCNN	144	34 (24%)	16 (11%)	10 (7%)	9 (6%)	75
National	3488	350 (10%)	676 (19%)	270 (8%)	255 (7%)	1937

Respiratory and GI outcomes were not split down to unit for 2013

Respiratory 2013

	Eligible babies	Impairment not determinable	No impairment	Mild/moderate impairment	Severe impairment
SSBCNN	69	5 (7%)	63 (91%)	1 (1%)	0
National	1551	154 (10%)	1356 (87%)	15 (1%)	26 (2%)

Gastrointestinal 2013

	Eligible babies	Impairment not determinable	No impairment	Mild/moderate impairment	Severe impairment
SSBCNN	69	4 (6%)	62 (90%)	1 (1%)	2 (3%)
National	1551	172 (11%)	1315 (85%)	31 (2%)	33 (2%)

- SSBCNMN was identified as having 144 eligible babies, none were lost to follow up. The number of eligible babies has nearly doubled from 2012 when there were only 73 eligible babies
- 51% had no data entered which is comparable to the national average of 55%.
- Our neurodevelopmental outcomes in the severe range are similar to national outcomes but our respiratory and GI outcomes are better than national outcomes.
- Mild/moderate neurodevelopmental outcomes at manor seems disproportionate to all other units and the national average

Question 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
- And either a pure growth of a skin commensal or a mixed growth with 3 or more clinical signs at the time of blood sampling?
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Standard – benchmarking

Completeness of available culture data by neonatal unit and gestational age 2013

	Gest age group	No. eligible babies	No. of blood cultures	No. of BC with results entered	No. of CSF cultures	No. of CSF cultures with results entered
Stafford	<32	15	5	5(100%)	0	0
	>32	834	80	75(94%)	8	7(88%)
National SCBU	<32	1124	381	281(74%)	13	12(92%)
	>32	12325	2651	1990(75%)	385	314(82%)
Manor	<32	56	54	44(81%)	0	0
	>32	481	184	143(78%)	23	17(74%)
	Missing	1	1	1	0	0
SATH	<32	44	113	110(97%)	14	13(93%)
	>32	746	226	216(96%)	46	45(98%)
RHH	<32	46	18	8(44%)	0	0
	>32	539	89	41(46%)	5	4(80%)
National LNU	Missing	5	1	1	0	0
	<32	3728	2663	2338(88%)	211	196(93%)
	>32	31234	8355	6807(82%)	1527	1310(86%)
RSUH	<32	86	180	180(100%)	5	5(100%)
	>32	452	228	226(99%)	31	31(100%)
NXH	<32	93	32	26 (81%)	1	1 (100%)
	>32	775	49	27 (55%)	11	8 (73%)
National NICU	<32	4931	5743	4816 (84%)	458	414 (90%)
	>32	31087	6991	5389 (77%)	1282	1012 (79%)
National total	<32	7410	8517	7435 (87%)	682	622 (91%)
	>32	71743	17917	14186 (79%)	3194	2636 (83%)

Positive blood and CSF culture results by neonatal unit and gestational age

	Gest age group	No. eligible babies	No. of babies with a pure growth of pathogens	No. of babies with a skin commensal and >3 clinical signs	No. of babies with a mixed growth and > 3 clinical signs	No. of babies with a pure growth CSF pathogen
Stafford	<32	15	1	0	0	0
	>32	834	1	0	0	0
National SCBU	<32	1124	6	0	0	0
	>32	12325	28	0	0	0
	Missing	1	1	0	0	0
Manor	<32	56	0	0	0	0
	>32	481	1	0	0	0
	Missing	1	0	0	0	0
SATH	<32	44	5	2	0	0
	>32	746	0	0	0	0
RHH	<32	46	0	1	0	0
	>32	539	0	0	0	0
National LNU	Missing	5	1	0	0	0
	<32	3728	90	211	52	2
	>32	31234	66	74	4	5
RSUH	<32	86	2	4	0	0
	>32	452	2	0	0	0
NXH	<32	93	1	0	0	0
	>32	775	0	0	0	0
National NICU	<27	1996	157	36	7	2
	28-31	2935	45	15	0	0
	32-36	10435	25	3	0	2
	>37	20652	48	1	0	1
National total	<27	2223	204	40	7	3
	28-31	5187	94	22	3	1
	32-36	24904	62	7	0	3
	>37	46839	105	3	0	5

- In 2013 there were 90287 admissions with 30311 blood and CSF cultures recorded. Pathogen results including No growth were entered for 82% of cultures which is marginally lower than 2012(85%).
- < 1% of babies had a positive blood culture with 0.6% pure growth
- 0.01% of babies had a positive CSF culture pure growth

- 0.09% of babies had a growth of skin commensal with 3 or more predefined clinical signs and 0.01% had a mixed growth with 3 or more predefined clinical signs
- For 2014 NNAP is setting a standard that on average 2 blood cultures for each baby admitted <32 weeks should be reported with 90% of cultures expected to be reported.

Question 9 – omitted for 2013 due to difficulty obtaining denominator data

Question 10 – How many blood stream infections are there on a NNU per 1000 days of central line care?

Standard – benchmarking

2013

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

2013

	Gestational age/weeks	Number of babies	Number of line days	Number. of CABSIs	CABSIs per 1000
Stafford	<32	15	6	1	166.7
	>=32	834	8	0	0
National SCBU	Missing	1	0	0	0
	<32	1124	938	1	1.1
	>=32	12325	1360	4	2.9
Manor	<32	56	359	0	0
	>=32	481	282	1	3.5
	Missing	1	0	0	0
SATH	<32	44	232	5	21.6
	>=32	746	146	0	0.0
RHH	<32	46	335	0.0	0.0
	>=32	539	195	0.0	0.0
National LNU	Missing	5	0	0	0.0
	<32	3728	18864	50	2.6
	>=32	31234	10247	15	1.5
RSUH	<32	86	783	5	6.4
	>=32	452	244	1	4.1
NXH	<32	93	841	1	1.2
	>=32	775	312	0	0.0
National NICU	Missing	6	3	0	0.0
	<32	4931	61053	196	3.3
	>=32	31087	26768	32	1.2
National total	Missing	12	3	0.0	0.0
	<32	7410	80855	247	3.1
	>=32	71743	38375	51	1.3

In 2013, 79615 infants received 986786 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 1000 central line days.

SaTH and RSUH appear to have a worse CABSIs as compared to national rates however the small numbers could be misleading.

Outliers

- For 2013 all 4 questions were looked at including temperature recorded within an hour of admission in less than 29 weeks gestation, ROP screening, proportion of < 33 weeks gestation babies receiving some form of EBM at discharge and documented consultation by a senior member of the neonatal team within 24 hours of admission.. None of the units in the SSBC network were identified as outliers.

NNAP 2014 will include reporting on CLD as a new audit question.