

Protecting and improving the nation's health

NHS newborn blood spot screening programme

Avoidable repeat tests (key performance indicator NB2) – learning from best improvers and best performing maternity services

January 2020

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About PHE screening

Screening identifies apparently healthy people who may be at increased risk of a disease or condition, enabling earlier treatment or informed decisions. National population screening programmes are implemented in the NHS on the advice of the UK National Screening Committee (UK NSC), which makes independent, evidence-based recommendations to ministers in the 4 UK countries. PHE advises the government and the NHS so England has safe, high quality screening programmes that reflect the best available evidence and the UK NSC recommendations. PHE also develops standards and provides specific services that help the local NHS implement and run screening services consistently across the country.

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Newborn blood spot avoidable repeat tests: learning from best improvers and best performing maternity services

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Executive summary

The acceptable threshold for Standard 6 (NBS-S06/NB2) is not met across England. The antenatal and newborn joint action meeting reviewed the performance of this KPI and agreed to act to drive continuous improvement.

A survey was sent to 14 maternity services performing well on this KPI, to learn what factors enable success in achieving the threshold for this indicator. The response rate was 85.7%. Maternity services are from all 4 regions in England and range from small to larger units in the volume of blood spot samples.

Maternity services feedback

Main factors identified that enable a reduction in the number of avoidable repeats are:

- organisation of clinics
- dedicated sample takers
- education, training and competencies
- giving feedback to sample takers
- double checking of blood spot cards

Availability of clinics throughout areas and flexibility (clinics that are open 7 days a week) make it easier to attend appointments. Organising newborn blood spot screening as part of post-natal visiting patterns can also help to make sure the sample is taken on day 5.

Having a dedicated group of sample takers who regularly perform blood spot samples enables achieving good samples and maintaining competency.

Training and competencies are considered one of the most important factors in reducing the numbers of avoidable repeats. These include regular training events, e-learnings and offering additional support when needed.

Introducing a monitoring system for avoidable repeats and providing feedback to sample takers helps to identify training needs, and offers support to staff who may need additional training and praises those who are performing well.

Barcoded NHS number labels should be routinely used by sample takers, and printed immediately after notification of birth as they avoid errors.

Recommendations

Maternity services not meeting the acceptable threshold must have an action plan in place that considers the learning in this report.

Maternity services meeting the acceptable threshold must have an action plan in place that considers the learning in this report to meet the achievable threshold.

Commissioners and providers should continue to monitor performance of NB2.

Maternity services should review the organisation of postnatal care/clinics to enable blood spot samples to be taken on day 5 (NBS-S04). This must include babies who spend time in neonatal intensive care/special care baby units.

Sample takers (including maternity support workers) should complete the newborn blood spot e-learnings, including the newborn blood spot sample e-learning. A system should be in place to assess ongoing competency as outlined in the service specification.

Maternity services should consider implementing a process to give feedback and peer support to sample takers in situations where they are doing well, and also in cases where improvement is needed.

Maternity services including neonatal units must use tracking systems and the newborn blood spot failsafe system, to make sure samples reach the laboratory within 3 working days of sampling (NBS-S05).

Sample takers should use barcoded NHS number labels (NBS-S03). These should be printed immediately after notification of birth and stored appropriately so that it's easy to access on day 5.

Sample takers should check the details of the blood spot card at the time of sampling with the parent/guardian.

Introduction

In February 2017, the antenatal and newborn joint action meeting (ANNB JAM) reviewed the performance of the newborn blood spot standard 6 (NBS-S06) / key performance indicator (KPI) NB2. This is the proportion of first blood spot samples that require repeating due to an avoidable failure in the sampling process.

This KPI's acceptable threshold (≤2.0%) is not met across England and about half of the newborn blood spot screening incidents are related to documentation errors. This has a direct impact on the performance of NB2.

Performance varies by region and maternity service (see table 1).

Table 1: NB2 performance across England						
	Acceptable level: ≤ 2.0%					
	Achievable level: ≤ 1.0%					
	Q1	Q2 Q3 Q4				
	1 April 2017	1 July 2017 to	1 October 2017 to	1 January 2018		
	to 30 June 2017	30 September 2017	31 December 2017	to 31 March 2018		
England	2.6	2.4	2.4	2.4		
North	3.2	2.6	2.8	2.8		
South	2.5	2.1	2.3	2.2		
Mids and East	2.3	2.3	2.2	2.3		
London	2.3	2.6	2.2	2.4		

The aim was to decide what actions to take, to drive continuous improvement in meeting the KPI's acceptable threshold.

We designed a survey and sent it to maternity services identified as best performers and best improvers, to learn from them and share lessons with all maternity services to drive improvement.

Background

Good quality blood spot samples are vital in making sure babies with rare but serious conditions are identified and treated early.

Good quality samples should be obtained first time to prevent the need for avoidable repeats. Avoidable repeat samples can cause anxiety for parents, distress to babies and delays in the screening process. They are also a waste of resources.

A good quality blood spot sample is one that:

- is taken at the right time (date of birth and date of sample are mandatory)
- has all data fields completed to enable identification of the baby (NHS number is mandatory), analysis and reporting of results
- contains sufficient blood to perform all tests (each circle filled and evenly saturated by a single drop of blood that soaks through to the back of the blood spot card)
- is not contaminated
- arrives at the laboratory in a timely manner

Methodology

The ANNB JAM looked at 4 quarters of NB2 data from 1 April 2017 to 31 March 2018, and identified maternity services that:

- were consistently the best performers (we used a performance threshold of <1.5%)
- had genuinely improved their performance over time

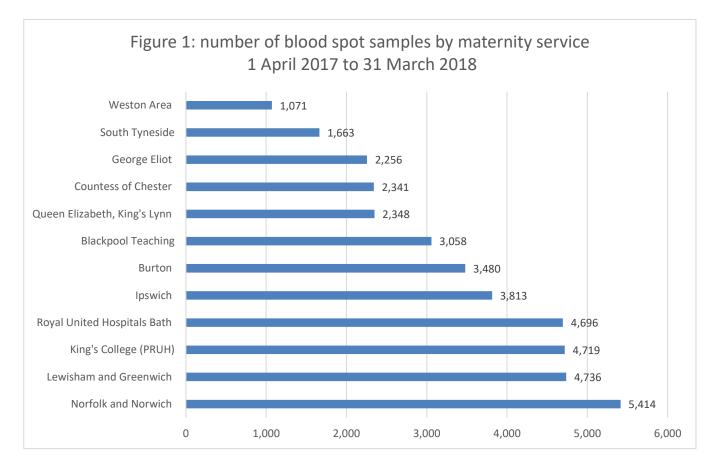
We designed a survey to learn from their experience and efforts in achieving this, so we can share lessons learned with other maternity services that are finding it challenging to meet this KPI. The survey was sent to 14 maternity services on 21 December 2018, with a deadline of completion of 15 February 2019.

Response rate

Twelve of the 14 maternity services completed the survey, giving a response rate of 85.7%. All regions were included.

Table 2: maternity services who completed the survey			
Maternity services with performance <1.5% (April 2017 to March 2018) best performers and best improvers	Laboratory	Region	
King's College Hospital NHS Foundation Trust (PRUH)	South East Thames	London	
Lewisham and Greenwich NHS Trust (Lewisham)	South East Thames	London	
Ipswich Hospital NHS Trust	Cambridge	Mids and East	
Norfolk and Norwich University Hospitals NHS Foundation Trust	Cambridge	Mids and East	
The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust	Cambridge	Mids and East	
Burton Hospitals NHS Foundation Trust	Birmingham	Mids and East	
George Eliot Hospital NHS Trust	Birmingham	Mids and East	
Countess of Chester Hospital NHS Foundation Trust	Alder Hey	North	
South Tyneside NHS Foundation Trust	Newcastle	North	
Blackpool Teaching Hospitals NHS Foundation Trust	Alder Hey	North	
Royal United Hospitals Bath NHS Foundation Trust	Portsmouth	South	
Weston Area Health NHS Trust	Bristol	South	

Population



The number of blood spot samples ranged from approximately 1,000 to just over 5,000 per year. The variance in the number of samples does not limit their ability to meet the acceptable / achievable threshold.

Factors that enabled a reduction in the number of avoidable repeats

We asked maternity services to describe the most important factors that enabled a reduction in the number of avoidable repeat tests. The main themes identified were:

- organisation of clinics (when and who)
- dedicated sample takers
- education, training and competencies
- feedback to sample takers (positive and/or constructive)
- double checking of blood spot cards

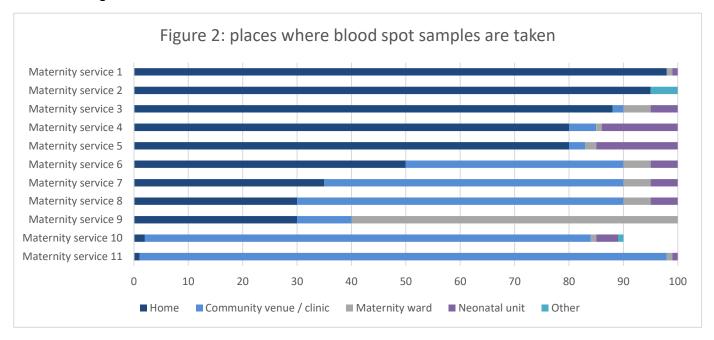
Organisation of clinics (when and who)

Flexibility of staff and availability of clinics was reported as a factor that enables success. Maternity services reported:

- on day 3 check, midwifery support workers (MSWs) invite women to attend an NBS clinic on day 5
- day 5 was made part of the post-natal visiting pattern, and visits are planned for longer to allow enough time to take the sample (visits are done 7 days a week, so samples are always taken on day 5 unless the woman is out at the time of visit)
- there are 12 clinics throughout the area to enable women the choice and different times to attend
- clinics are available during weekends and bank holidays at the local maternity unit
- having a dedicated team of screeners who work 7 days per week (they see mums on day 5 in the clinic and in the home across the clinical area and complete hearing and blood spot)

Places where the majority of newborn blood spot samples are taken

Maternity services said that the majority of samples are taken at home. The remaining samples are taken in the community clinic, maternity ward and neonatal unit. For maternity services 10 and 11, the majority of samples are taken in the community clinic as these services are configured differently. For example, one maternity service has 12 clinics throughout the area with a choice of different times to attend.



Note: 1 respondent did not answer this question

Dedicated sample takers

Maternity services reported advantages of having dedicated sample takers. Their comments included:

- they are experts in their field and taking samples daily mean they are really good at what they do
- blood spots are usually performed by MSWs, who are responsible for blood spot sampling and provide support around feeding (both on the community and on the postnatal ward); this small group also monitors the failsafe tracker
- MSWs have become expert at blood spot sampling as they take large numbers. So they have a good understanding of the importance of providing the lab with good quality samples.
- MSWs have taken ownership of the sampling, whilst the midwives remain responsible for gaining consent to the screen
- MSWs run these clinics and therefore maintain their own competency by regularly performing the blood spot sampling

Staff groups who take most newborn blood spot samples

Responders said midwives and MSWs / health care assistants take the majority of samples, followed by neonatal nursing staff and doctors.

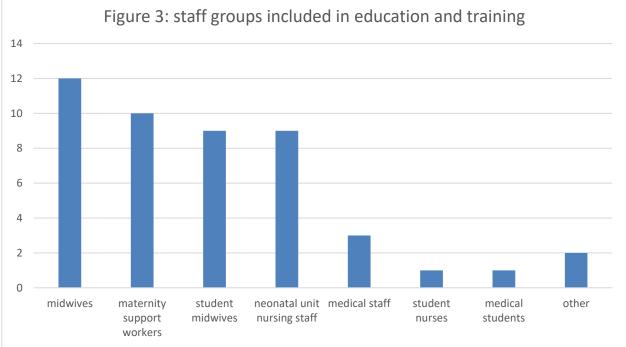
Education, training and competencies

Most maternity services reported training and competencies as one of the most important factors to enable success. They found helpful:

- discussing NBS screening at the yearly training day
- having a training session delivered by specialists to make sure staff understand the importance of taking a good quality sample on day 5, and the risks involved with avoidable repeats and delayed screening
- supporting staff to become more confident in performing the test
- having student midwives observe many tests before starting to do them
- making sure all staff (midwives and support workers) are given up-to-date training
- having the screening coordinator go through any updates/changes at induction with new members of staff, or staff returning from long-term absence (for example sick leave or maternity leave)

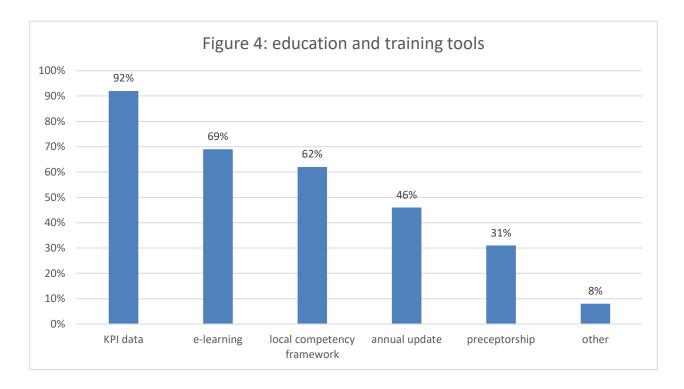
Staff groups included in education and training around newborn blood spot

Respondents said a variety of staff is included in education and training as shown in figure 3.



Tools used to support education and training

Maternity services use different tools to support education and training, like the KPI data and the NBS e-learning modules as shown in figure 4.



Blood spot samples

Automated incision devices used by maternity services

Maternity services responding used a range of automated devices including:

- Tenderfoot
- BD Microtainer
- BD Microtainer (blue)
- Sarstedt neonatal safety lancet
- Baby Lance
- Tiny touch Unstix

One maternity service reported that they changed their device to automated lancets to reduce the avoidable repeat rate.

Processes used to make sure samples reach the laboratory in a timely way

Samples should arrive in the laboratory within 3 working days of sampling (NBS-S05). Avoidable repeats will be requested if samples take longer than 14 days to reach the laboratory. Processes used by maternity services are:

- manual tracking system
- use of internal transport via their local lab, courier, Royal Mail
- use of newborn blood spot failsafe system

Their comments included:

- a daily list is printed of the babies born the day before, so we know by day 6 which blood spots we should have received. These are then sent on transport daily Mon-Fri. If we didn't check the list daily, we would miss the occasional one left in a midwife's diary!
- all samples returned to the trust within 24 hours. Samples are sent via hospital transport who collect samples at 9 am and deliver directly to the Newborn Screening Lab. A tracking sheet detailing samples sent is included with the samples. This is emailed back as evidence of samples arriving

Processes to make sure that the blood spot screening sample is taken on day 5

These include:

- booking a postnatal visit on day 5
- flexibility of appointments, clinics, 7-day service
- tracking systems
- education and training mandatory staff training days, guidelines and newsletters

Maternity services comments included:

We have a tracker, so all eligible families are inserted onto the tracker on day 1. On day 3, we ensure all mums have an appointment booked for day 5 and there is capacity in terms of screeners to cover all families. We run the service 7 days per week all year round. By tracking mums, we can audit where they were seen, when they were seen and who took the sample. We then audit the day the sample was received in the lab, which screeners samples are received late in the lab and investigate possible reasons why. The tracker failsafes the whole of maternity to ensure everyone has been screened.

Barcoded NHS number labels

Use of barcoded NHS number labels

All maternity services said that barcoded NHS number labels are routinely used by sample takers.

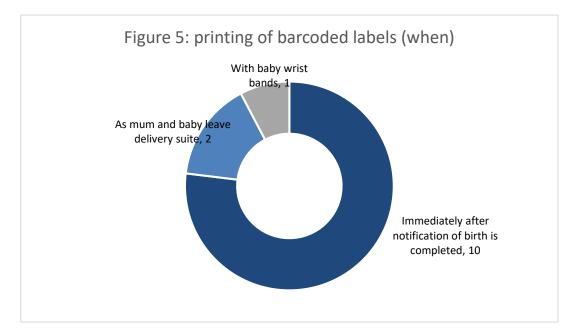
We looked at maternity services performance against NBS-S03 — the proportion of blood spot cards received by the laboratory with the baby's NHS number on a barcoded label.

Performance of NBS-S03 in 2017/18 for the responding maternity services is as follows:

Table 3: maternity services performance on NBS-S03			
Maternity service	NBS-S03 performance (acceptable: ≥ 90.0%, achievable: ≥ 95.0%)		
Maternity service 1	70.1%		
Maternity service 2	77.7%		
Maternity service 3	82.9%		
Maternity service 4	89.4%		
Maternity service 5	92.1%		
Maternity service 6	92.2%		
Maternity service 7	94%		
Maternity service 8	94%		
Maternity service 9	95.1%		
Maternity service 10	96.6%		
Maternity service 11	not reported by maternity service		
Maternity service 12	not reported by maternity service		

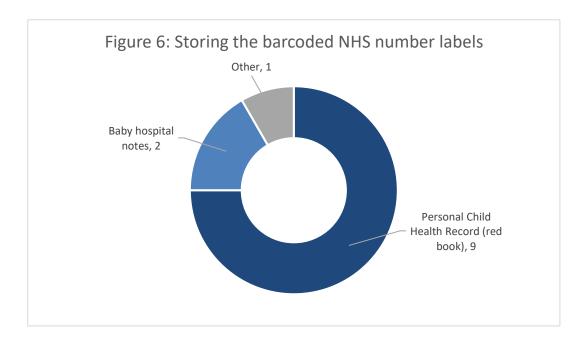
Half of services meet the acceptable threshold for NBS-S03 with 2 services meeting the achievable threshold (data is not available for 2 maternity services).

Printing of barcoded NHS number labels



The majority of maternity services print barcoded NHS number labels immediately after notification of birth is completed. One of the maternity services identified this timing as having a significant impact in reducing the avoidable repeat rate.

Storing the barcoded NHS number labels



Nine out of 12 maternity services said they store barcoded NHS number labels with the Personal Child Health Record (red book) to make sure they are available at the time of sampling. Thought should be given on how the new eRedBook could impact on this.

Feedback to sample takers

Nine of the 12 maternity services responding reported the importance of feedback — positive and constructive. Positive feedback is given to sample takers who are performing well, such as:

- making awards
- article in the maternity newsletter
- display performance data on noticeboards visible to users/parents

Feedback is also given to sample takers to improve practice when avoidable repeats are identified. Approaches taken by maternity services are:

- making sure the individual who took the original sample takes the repeat sample themselves, providing any support required
- discussing avoidable repeats during mandatory training days
- discussing training needs with their manager / screening coordinator
- taking pictures of rejected cards to explain to sample takers why they were rejected
- monitoring whether more than 1 avoidable repeat occurred in a given period (quarterly, every 6 months).

When avoidable repeats are identified, sample takers are required / offered to:

- have peer support by observing the sample taker's practice
- repeating the newborn blood spot e-learning module
- stop taking NBS samples until they have completed and passed a competency assessment

Double checking of blood spot cards

The majority of responders undertake some form of quality checks of the blood spot cards, relying on what they described as 'a fresh eyes approach'. This was sometimes done by either a different member of staff (a midwife who did not take the sample) or a specific team or person (for example the screening team). When issues were identified with specific samples (for example NICU samples), quality checks were put in place to reduce the number of avoidable repeats.

Maternity services said that double checking of blood spot cards enables them to identify and reject inaccurate cards earlier and identify staff training needs.

The newborn blood spot screening programme recommends that sample takers double check the details on the card (and label if used) with the parents/guardian at the time of sampling. Any errors can be corrected at the time. Any checking after this that results in rejection of the card before it reaches the laboratory is masking the true avoidable repeat rate. We recommend that where checks identify errors after sampling, rejected cards are still sent to the laboratory and the original sample taker performs a repeat test (with consent). This will still enable identification of training needs and will lead to a real improvement in the avoidable repeat rate over time.

For maternity services who said they double check blood spot cards, we looked at their performance against NBS-S05 — timely receipt of a sample in the newborn screening laboratory) to ascertain if the double-checking process had any negative impact on the timeliness of the screening pathway.

Seven maternity services said they have a double-checking process; their performance on NBS-S05 in 2017/18 is as follows:

Table 4: NBS-S05 performance for maternity services who have a double-checking			
process			
Maternity service	NBS-S05 performance (acceptable: ≥ 95.0%, achievable: ≥ 99.0%)		
Maternity service 1	88.4%		
Maternity service 2	88.6%		
Maternity service 3	89.3%		
Maternity service 4	93.3%		
Maternity service 5	98.7%		
Maternity service 6	99.2%		
Maternity service 7	99.8%		

Three of the 7 services that have a double-checking process meet the acceptable threshold for NBS-S05 (2 of the 3 services meet the achievable threshold). We are not

able to say if the double-checking process contributes to delays in sending the samples in the other services, but we are aware in 1 of these services there are known problems with the postal service.

A double-checking process may appear to be effective in reducing the avoidable repeat rate, but this in fact is masking the true avoidable repeat rate. It could also delay samples getting to the screening laboratory.

It is interesting to note that the 2 services meeting the achievable threshold for NBS-S05 said they either:

- gather samples in one location
- bring samples into hospital
- the screening team undertakes a quality check but
- they both courier samples to the screening laboratory

Availability of written guidelines / standard operating procedures

Eighty-three percent of respondents said they have guidelines to make sure that babies who spend time in neonatal intensive care/special care baby units have their blood spot screening sample taken.

Plans for maintaining improved performance

Maternity services said their plans for maintaining improved performance include:

- addressing identified issues
- training staff and having regular meetings
- monitoring avoidable repeats
- providing staff with feedback and peer supervision
- liaising with colleagues and thanking staff

Actions by the national screening programme

The newborn blood spot screening programme will:

- evaluate the impact of the new blood spot card
- continue working with screening labs to improve the criteria and consistency for blood spot quality

Acknowledgements

Thanks to the following individuals for their contributions to the content of this report and in particular, thanks to the maternity services responding to the survey and providing their competency packs.

- Nadia Permalloo
- Lizzie Tempest
- Tessa Morgan
- Newborn Blood Spot programme Kate Israel, Christine Cavanagh, Lucy Pylypiw
- Jane Scattergood
- Helen Lewis-Parmar

Appendix 1: competency pack 1

Produced by The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust

Competence: Assessment of baby – Bloodspot Sampling

Competence objective:

The Midwife/Nurse/Support Worker will demonstrate competence in bloodspot sampling of the newborn

KSF. A Dimension HWB2 Assessment and care planning to meet people's health and wellbeing needs HWB5 provision of care to meet peoples needs.

D = Demonstrated $S = Supervised$ $C = Competent$	D	S	С	
Knowledge				
 Performs bloodspot sampling on babies in accordance with legal professional and policy requirements 				
 Understands the rationale for bloodspot sampling. 				
 Has knowledge of anatomy and physiology applicable to bloodspot sampling from the heel 				
 Is able to describe the procedure for obtaining a bloodspot sample from the babies heel 				
 Can discuss the factors that may help or hinder the procedure 				
 Can discuss the risk factors associated with this procedure 				
 Is able to discuss the correct procedures for minimising infection, including hand washing, use of aprons, gloves and aseptic 				
technique				
 Can discuss knowledge of safe disposal of equipment 				
 Is able to discuss the importance of accurate labelling of samples and completing request forms 				

 Can discuss the importance of record 	
keeping	
Practice	
 Identifies the patient correctly 	
 Explains the rationale for the procedure to the percente 	
the parents	
 Gains informed consent from the parents 	
and document	
 Selects appropriate equipment and blood 	
collection device	
 Washes hands, wears gloves 	
 Positions the baby appropriately, 	
recommending comfort measures e.g.	
breastfeeding, engaging in face to face	
contact, voice and touch.	
Inspects the foot and avoiding underlying	
nerves and bone, selects the best site on	
the heel	
Cleans the site with tepid plain water and	
leaves foot to dry for at least 30 secs	
With the non-dominant hand holds the ankle	
with the foot flexed	
Pierces the skin with an appropriate neurbern sutemated langet (penetrative	
newborn automated lancet (penetrative	
depth of 2mm for term infants) and disposes	
of the lancet directly in the sharps bin	
Allows the blood to form into large drops	
then collects blood as required.	
 When taking blood for the blood spot the 	
circles must be filled completely by natural	
flow, one spot of blood to each circle,	
ensuring the blood seeps through to the	
back of the card. Avoids layering of blood.	
 The blood spot card must dry completely 	
before being placing in the glassine	
envelope. Despatch within 24hrs.	
• Applies pressure to the site using a cotton	
wool ball and applies a plaster if necessary	
 Encourages parents to calm baby 	
 Documents accurately in appropriate 	
records.	
 Accurately labels the samples and ensure dotails match the request form 	
details match the request form.	

Appendix 2: competency pack 2

Produced by: Norfolk and Norwich University Hospitals NHS Foundation trust

Assessment of Competence For:

Documentation for assessing competency in Blood Spot Screening

Practitioner's name:		
Department/Ward:		
Assessors Name:		
Training period:	From:	То:

Competency developed by:	
For use by:	
Review date: (dd/mm/yyyy)	

This document has been compiled to support midwives and MCA's in maintaining their knowledge and clinical skills.

Objectives	Competency links to: (Protocols/national standards/professional standards/KSF)	
Competence Will Be Gained Through	Detail how the competency will be achieved below e.g. private study, taught sessions, formal education, reflection, observation, supervision.	
Assessment	Detail who can assess. Detail assessment process: This may be. • Observational • Verbal Question and Answers • Written exercises • Demonstration of practical skills.	
Re-Assessment	State timeframes for re-assessment/review	
Assessor Qualifications	State who can act as an assessor as well as any specific assessor requirements	

	Completed		
Policy/Document/Recommended reading	Signature	Date (dd/mm/yyyy)	

Formative Assessment

- 1. Complete the practical assessment and review your learning objectives to ensure you can meet these and produce the necessary written work.
- 2. Ensure all documentation is complete and retain your portfolio as evidence.
- 3. WHEN your assessments are completed your assessor and line manager will sign you off as competent to undertake this practice.

Prior knowledge and skills of midwife relevant to competency

Action Plan (How do you plan to achieve the skill?)

Date for completion (dd/mm/yyyy).....

Date for review of progress (dd/mm/yyyy).....

Signature of Midwife	Date (dd/mm/yyyy)
Signature of Assessor/Mentor	Date (dd/mm/yyyy)

Levels of Practice

Evidence of Practical Skill

You are required to perform a minimum of 5 screening tests under direct supervision of another Registered Midwife before you can be assessed as competent in this skill.

Demonstrated (D)

Carries out or takes part in the activity under direct supervision. Practical skills may be slow or limited. Applies knowledge, skills and attitudes learnt within the training setting, to the practice setting. Understands the importance of relating research to practice.

Supervised (S)

Carries out or takes part in the activity without the need for direction but still requires intermittent direct supervision and support. Practical skills are improving and skills are being performed more quickly. Research can be assessed and applied to the practice setting.

Competent (C)

Works without direct supervision and is able to transfer knowledge and skills to new situations. Performs practical skills in a capable manner with improved speed of response. Recognises how practice can be changed based on research and can reflect on own practice in the light of experience.

	Date (dd/mm/yyyy)	Level of observed/ supervised skill	Candidate's signature	Assessor's signature
Patient 1				<u> </u>
Patient 2				
Patient 3				
Patient 4				
Patient 5				
Patient 6				
Patient 7				
Patient 8				
Patient 9				
Patient 10				

Record of observed and supervised practice

Competence: Assessment of baby

Competence objective:

The Midwife/MCA will demonstrate competence in of the newborn

KSF. A Dimension HWB2 Assessment and care planning to meet people's health and wellbeing needs

HWB5 provision of care to meet people's needs.

Competence criteria D = Demonstrated S = Supervised C = Competent	D	S	С	Comments
Knowledge				
 Performs Newborn Blood spot on babies in accordance with legal professional and policy requirements 				
 Understands the rationale for Newborn Blood spot. 				
 Has knowledge of anatomy and physiology applicable to Newborn Blood spot from the heel 				
 Is able to describe the procedure for obtaining a Newborn Blood spot from the babies heel 				
 Can discuss the factors that may help or hinder the procedure 				
 Can discuss the risk factors associated with this procedure 				
 Is able to discuss the correct procedures for minimising infection, including hand washing, use of aprons, gloves and aseptic technique 				
 Can discuss knowledge of safe disposal of equipment 				
 Is able to discuss the importance of accurate labelling of samples and completing request forms 				
Can discuss the importance of record keeping				

Pract	ice			
FIACE	Identifies the patient correctly			
	Explains the rationale for the procedure			
	to the parents			
•	Gains informed consent from the parents and document			
•	Selects appropriate equipment and blood collection device			
•	Washes hands, wears gloves			
•	Positions the baby appropriately, recommending comfort measures e.g. breastfeeding, engaging in face to face contact, voice and touch.			
•	Inspects the foot and avoiding underlying nerves and bone, selects the best site on the heel			
•	Cleans the site with tepid plain water and leaves foot to dry for at least 30 secs			
•	With the non-dominant hand holds the ankle with the foot flexed			
•	Pierces the skin with an appropriate newborn automated lancet (penetrative depth of 2mm for term infants) and disposes of the lancet directly in the sharps bin			
•	Allows the blood to form into large drops then collects blood as required.			
•	When taking blood for the blood spot the circles must be filled completely by natural flow, one spot of blood to each circle, ensuring the blood seeps through to the back of the card. Avoids layering of blood.			
•	The blood spot card must dry completely before being placing in the glassine envelope. Despatch within 24hrs.			
•	Applies pressure to the site using a cotton wool ball and applies a plaster if necessary			
•	Encourages parents to calm baby			
•	Documents accurately in appropriate records.			
•	Accurately labels the samples and ensure details match the request form.			

Final Assessment Newborn Blood Spot

Once competency has been reached in all the relevant areas in the preceding pages please complete the following.

I have assessed (print) to be competent in the skill of Newborn Blood Spot		
Assessors signature	Name	
Date (dd/mm/yyyy)	Designation	
Clinical Midwifery Manager/Matron	Name	
Date (dd/mm/yyyy)	Designation	

Assessor/Clinical Midwifery Manager/Matron comments on successfully completing a final assessment.

Signature	Name	Date (dd/mm/yyyy)
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I am confident in my ability to perform Newborn Blood spot in accordance with the organisation's policies.		
I acknowledge my accountability to maintain my competence in line with the requirements of my professional body and/or job description		
Candidates signature Name		
Date (dd/mm/vvvv)	Ward	

Candidate's comments on successfully completing a final assessment.

Re-assessment date (dd/mm/yyyy).....

Competence record held by:....

Please ensure the relevant members of staff are aware that competence has been achieved and recorded as agreed by the approving committee/group/directorate.

Please ensure that a signed copy of the final assessment is placed in the individuals personnel file.

Appendix 3: Checklist for maternity services

This checklist enables maternity services to identify areas for potential improvement based on learning from maternity services performing well on KPI NB2.

Questions	Answers	Actions
Is there a process to monitor avoidable repeats?		
Is there an action plan to drive continuous improvement?		
Is performance of NBS-S03, NBS-S04, NBS-S05, NBS-S06 discussed at screening programme boards?		
Is there a process to give sample takers feedback on their performance on NB2 (positive and/or constructive)?		
Is there a process in place to offer peer support to sample takers?		
Are details on the blood spot card checked with the parent/guardian?		
Are all blood spot sample takers including neonatal staff up to date with their training?		
Does the induction procedure for new starters include newborn blood spot?		
Does the induction procedure for return to work staff include newborn blood spot?		
Do you maintain a log of staff completing newborn blood spot e- learning modules?		
Have you considered a local competency framework?		
Are there processes in place to make sure blood spot screening is completed on day 5 (NBS-04)? Do you have enough capacity,		

Newborn blood spot avoidable repeat tests: learning from best improvers and best performing maternity services

sample takers and flexibility to accommodate taking samples on day 5?	
Is there a tracking system and failsafe system to make sure samples reach the laboratory within 3 working days of sampling (NBS-S05)?	
Do sample takers use barcoded NHS number labels (NBS- S03)?	
When are barcoded NHS number labels printed?	
Where are barcoded NHS number labels stored- are they easily accessible on day 5?	