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| Clinical Guideline |  |
| For use in: Newborn Blood Spot Test |  |
| By: Health Visitor Staff and Early Years Family Practitioner |  |
| Written 25th July 2018 |  |
| To be reviewed:  This document remains current after this date but will be under review | 2 August 2020 |

**These guidelines should be read in conjunction with Newborn Blood Spot Screening: Sampling Guidelines (2014) at:** <https://www.gov.uk/government/publications/health-professional-handbook-newborn-blood-spot-screening>

<https://www.gov.uk/government/publications/newborn-blood-spot-screening-sampling-guidelines>

**Objective**

The screening programme aims to achieve early detection, referral and treatment of babies thought to be affected by any of these conditions with the aim to improve health and prevent disability, even death.

**Broad recommendations**

The Newborn Bloodspot Screening Programme consists of a series of stages and involves a number of different health professionals this guideline provides important information associated with the screening test and outlines the role and responsibilities of the health visiting service.

**Process**

1. **Information and consent**

It is important to offer parents an informed choice about screening for their baby, to gain consent and to prepare them for the blood sampling procedure.

At least 24hrs before the test, the parents should be directed to NHS Choices – newborn blood spot test to access information on what the test screens for and how it is performed. (this is available in different languages) If the parent cannot access the internet a copy must be printed out and discussed with the parent. If necessary the leaflets can be downloaded from the following link

<https://www.gov.uk/government/publications/screeningtests-for-you-and-your-baby-description-in-brief>.

Explain fully to parents and then record in the HV Capita record and the PCHR baby’s notes. Blood spot screening has been discussed and recommended, written information received and consent sought. Verbal consent is adequate. Parents should ask if they consent to being contacted in the future for research linked to the screening programme, if not “**No research contact”** should be documented clearly on the card. Ensure parents are aware that identifiable data may be stored by the National Sickle cell and Thalassamia Screening Programme.

Pre-arrange a convenient time to take the blood sample. At this stage, advice on keeping the baby and particularly its feet warm prior to the test.

**If the parents decline all or part of the screening:**

Since the introduction of the expanded inherited metabolic disorders parents can only accept or decline all of these conditions (PKU, MCADD, MSUD, IVA, GA1, HCU), not each one separately. They can decline the other conditions individually.

Record that screening has been declined on Capita HV and PCHR record and personal child health record (PCHR) if it is available. Send the completed card marked as DECLINED to screening laboratory. Inform parents to contact their GP or Health Visitor if they change their minds or want further information and inform Child Health and GP of decline.

1. **Completion of the card**

**The expiry date on the card must be checked prior to use**

* Confirm and complete baby’s name, date of birth and NHS number
* Confirm and complete mother’s details and NHS number if known
* Check the age is under 1yr old.
* Complete the newborn screening blood spot card
* Ensure all of baby’s details are on it
* **Rank** refers to birth in order – for twins
* **Ethnic Code** is on the rear of the card
* When completing the card, care must be taken to avoid contamination from a dirty surface or through touch

All GP details must be recorded. GP codes can be found in the cards in the blood spot bags

**PCT**

is Swindon

**Mothers NHS number** should be completed if known, all other details should be completed.

In the comments box record ‘**Transfer In from \_\_\_\_\_name of county’**

1. **Taking the Newborn Blood Spot sample**

Explain the procedure to parents, record the parents’ consent to screening in the PCHR, if it is available, and on Capita and then proceed with test.

The baby can be cuddled during the procedure but must be held in a secure position for taking the sample. Engaging the baby through face-to-face contact, voice and touch may be beneficial. Analgesia in the form of breast feeding or non-nutritive sucking is recommended.

Clean the heel by washing thoroughly with plain tepid water. If faecal matter cannot be removed from the foot with water, use a mild, unperfumed soap to clean away the faecal matter and then rinse the foot thoroughly. **Do not use alcohol wipes.** The heel should be allowed to completely air-dry before taking the sample. The heel should be warm – if it feels cold gentle massage may be helpful. Additional warming of the foot is not required. Wash hands and apply gloves.

Allow the foot to hang down to increase blood flow. Before activation, place the automated lancet device against the heel in accordance with manufacturers’ instructions. Perform the test using an automated lancet device choosing the right lancet for the child’s age

The external and internal limits of the calcaneous are the preferred puncture site marked by the shaded areas in Diagram A. Where a baby has had repeated heel punctures the areas marked in Diagram B may also be used.

**Ensure you use the correct Lancet for the age of your baby**

**Newborn to 6 months and toddler-2yrs**



Each circle on the Newborn Blood Spot Card must be filled completely using a single drop of blood. Allow blood to flow naturally, do not squeeze the foot. Direct one drop into each of the circles on the card.

* The blood must seep completely through to the back of the card. There must be no layering of blood.
* **Do not** compress the bloodspot to ensure the blood has soaked through to the reverse of the card.
* **Do not** allow the heel to make contact with the card. Wipe excess blood from the heel and apply gentle pressure to the wound with cotton wool or gauze.



**If the blood flow ceases:**

**The foot must not be squeezed** as this may damage the blood cells to be tested and may cause bruising. The congealed blood should be wiped away firmly with cotton wool or gauze. Gently ‘massage’ the foot and drop the blood onto the card.

**If the baby is not bleeding a second puncture is necessary:** The second puncture should be performed on a different part of the same foot or on the other foot. Apply a spot plaster if required and remind the parent to remove in a few hours.

1. **After taking the Blood Sample**

Allow blood spots to air-dry away from direct sunlight or heat before placing in the glassine envelope. Despatch the blood spot sample card the same day, use a stamped address envelope and post immediately in a post box that has a 5pm collection

Record date and time of sample. Inform parents that results can be expected within 6-8 weeks and how they will receive them. If the baby screens positive they will be notified sooner

1. **Results**

Results are sent electronically by the Laboratory to the Child Health Department for recording on the child health information system. Child Health forwards results to the Health Visitor and notifies the parents by post

The Child Health Department regularly check the child health system to ascertain if the test had been done and contact the health visitor team if no result is received or a “decline” is not recorded as per Newborn Blood Spot Pathway. This allows a retest to be offered if a screening has been omitted or specimen lost.

The National Newborn Bloodspot IT Failsafe system is in place and monitored by child health

1. **Repeats**

For all repeats ensure that the repeat sample box is ticked on the blood spot card. If results are equivocal initially the laboratory will repeat the test using another spot on the original card. If it remains equivocal, a repeat sample is requested

**Health Visitors will inform parents and appropriate health professionals of any outstanding screening tests when transferring care.**

Laboratories will request a repeat sample due to any of the following:

* Incomplete data on the card, e.g. no date of sample recorded
* No NHS number (or equivalent) on the card
* Insufficient blood on the card, e.g. has not soaked through to back of card
* Layering of blood
* Compression of the blood spot
* Delay in laboratory receiving the sample
* Contamination of the sample card, e.g. faeces, adult blood etc.

When a repeat sample is requested for any of the above reasons, the sample should be taken within 72 hours of the receipt of the request.

Where a practitioner has had 3 avoidable repeats in 3 months a competency package should be completed (see Appendix1)

1. **Positive results**

There is a named paediatric consultant responsible for providing care for each condition identified on Newborn Screening. The Laboratory contact the named consultant directly by phone with an abnormal result, followed up by a hard copy. The named consultant or one of their team will contact the parents directly and offer an appointment, to discuss the result and organise care.

Written confirmation of the positive result will be sent to the GP. The screening laboratory will inform the Paediatrics

1. **Storage of blood spot cards after completion by National Blood Spot Screening programme**

Blood spot cards are stored so that if necessary, one or more of the screening tests can be repeated to check a particular result. The stored blood spot specimen can also be used to test for some other disorders, which are not part of the screening programme. This may be useful if the child becomes ill and the doctor requests further tests, but this would always be discussed with the child’s parents first. Anonymous testing may be performed to assist in the development of new screening methods. Where a sample needs to be identifiable, parental consent will always be obtained prior to the sample being used.

**Screening Safety Incidents**

Due to the nature and characteristics of screening tests, safety incidents within screening programmes require special attention and management (Ref. no. 25) Where an incident occurs along any of the UKNSC screening pathways the ANSC should be informed and the UKNSC document “Managing Safety Incidents in NHS Screening Programmes: October 2015” referred to.

**Clinical audit standards**

Number of avoidable repeat samples audited and reported by National Programme

**Levels of Practice (to be used in conjunction with competency standard see Appendix A)**

**Evidence of Practical Skill**

You are required to perform a minimum of 5 screening tests under direct supervision of a health visitor 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.

**Competent (C)**

Works without direct supervision, performs practical skills in a capable manner with improved speed of response, improving blood spot quality e-learning practical training session completing a Newborn Blood Spot

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| --- | --- | --- | --- |
| Has completed and seen certificates for e-Lfh Newborn Blood Spot (NBS) Screening Programme | | | |
| Assessor |  | Print |  |
| Date |  |  | |

**Record of observed and supervised practice**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Date  (dd/mm/yyyy) | Level of observed supervised skill | Candidate’s signature | Assessor’s signature |
| Patient 1 |  |  |  |  |
| Patient 2 |  |  |  |  |
| Patient 3 |  |  |  |  |
| Patient 4 |  |  |  |  |
| Patient 5 |  |  |  |  |
| Patient 6 |  |  |  |  |
| Patient 7 |  |  |  |  |
| Patient 8 |  |  |  |  |
| Patient 9 |  |  |  |  |
| Patient 10 |  |  |  |  |

**Final Assessment Newborn Blood Spot**

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

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| --- | --- | --- | --- |
| **I have assessed *(print)*** …………………………………… **and have found him/her to be**  **competent in the skill of Newborn Blood Spot** | | | |
| **Assessors signature** |  | **Print** |  |
| **Date (dd/mm/yyyy)** |  | **Designation** |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **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** |  | **Print** |  |
| **Date (dd/mm/yyyy)** |  | **Ward** |  |

|  |  |
| --- | --- |
| **Candidate’s comments on successfully completing a final assessment** | |
|  | |
| **Re-assessment date** (dd/mm/yyyy) |  |
| **Competence record to be scanned to practitioners supervision file** | |