

## Neonatal Hepatitis B Immunisation Programme Service specification for the dried bloodspot test at 12 months DRAFT Version 1.0

<b>Service Specification No.</b>	01B
<b>Service</b>	Neonatal Hepatitis B Immunisation Programme – Dried Bloodspot Heel Prick Test
<b>Commissioner lead for enquiries</b>	James Bolt, Head of Public Health Commissioning, NHS England South West
<b>Provider Lead</b>	Determined by geography see section 3.2.1
<b>Period</b>	Effective dates 1-4-2017 to 31-3-2019
<b>Date of Review</b>	1-6-2018

### 1. Population Needs

#### 1.1 National/local context and evidence base

This document relates to the newborn hepatitis B vaccine, which protects newborn babies who are at risk from hepatitis B infection from their infected mothers. Hepatitis B is a chronic infection of the liver which can cause serious illness and premature death. This vaccine forms part of the national immunisation programme and is delivered alongside the hepatitis B antenatal screening programme.

This specification does not supersede the national neonatal Hepatitis B immunisation programme but provides supplemental information regarding local arrangements for the dried bloodspot test element only.

### 2. Outcomes

#### 2.1 NHS Outcomes Framework Domains & Indicators

<b>Domain 1</b>	<b>Preventing people from dying prematurely</b>	<b>x</b>
<b>Domain 2</b>	<b>Enhancing quality of life for people with long-term conditions</b>	<b>x</b>
<b>Domain 3</b>	<b>Helping people to recover from episodes of ill-health or following injury</b>	
<b>Domain 4</b>	<b>Ensuring people have a positive experience of care</b>	<b>x</b>
<b>Domain 5</b>	<b>Treating and caring for people in safe environment and protecting them from avoidable harm</b>	<b>x</b>

### **3. Scope**

#### **3.1 Aims and objectives of service**

The key details of the neonatal hepatitis B immunisation programme are:

- hepatitis B infection transmitted from mother to child accounts for 21% of newly acquired hepatitis B infections in the UK.
- pregnant women are offered screening for hepatitis B; The UK National Screening Committee has issued guidance to support the commissioning and delivery of an effective screening programme.
- where pregnant women are identified through the screening process as being chronically infected with hepatitis B (i.e. hepatitis B surface antigen positive) it is recommended that the baby is vaccinated. Babies born to women of high infectivity should also receive a single dose of hepatitis B specific immunoglobulin.
- the baby is vaccinated using an accelerated schedule comprising of three vaccines followed by a booster dose at 12 months of age. The baby is also given a blood test at 12 months to check whether or not infection has been prevented.
- timely immunisation can prevent persistent hepatitis B infection in around 90% of individuals who would have otherwise developed the infection.

The aim of this specification is to support practices to provide the blood test at 12 months of age by setting out guidance and a process for payment. Commissioners accept that in the interests of maintaining clinical competence and up to date training, local practices may choose to federate and identify a lead practice to provide dry bloodspot testing for a specified locality.

#### **3.2 Service description/care pathway**

As part of the Neonatal Hepatitis B immunisation programme practices are required to take or refer for a blood test for HepB surface antigen - HBsAG - (can be venepuncture or dried blood spot -heel prick) at age 12 months (this can be at the same time as the fourth dose) or as soon as possible thereafter. They should also ensure that the results of the blood test are communicated as soon as practicable to the patient's parents or guardian and where there is a positive result, make a referral is for early paediatric assessment.

The preferred route to offer the test for HepB surface antigen is using a dried bloodspot heel prick test. The rationale is that test can be carried out in the practice at the same time as the fourth dose of vaccine is administered. This reduces the overall number of appointments that the parent or guardian and child have to attend and means that they can have the test provided in their local practice rather than attending a hospital appointment.

To facilitate practices being able to provide the dried bloodspot heel prick test at the time of administering the fourth dose of hepatitis B vaccination the following procedures are in place for 2017/18.

- Child Health Information Services will be scheduling babies who are eligible for vaccination as part of the Neonatal programme. When they schedule the fourth dose of vaccination they will also send a dried blood spot heel prick test kit to the practice.
- Practices will be able to claim £5.00 per test administered using the quarterly NHS England manual claim form.
- A range of resources have been developed to assist practices to administer the test

##### **3.2.1 Administering the test**

The Hepatitis B dried blood spot should be taken when the infant is 12 months or, if vaccinations are delayed, at, or as soon as possible after 12 months. The test is recommended at the same visit as the fourth dose of hepatitis B vaccine

At this visit:

##### **1. Gain consent**

- Discuss screening with parent(s)
- Provide information (Q&A leaflet)

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/343](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/343)

## [751/Introducing parents to dried blood spot DBS testing v2.pdf](#)

- Record discussion and leaflet provision
- Record parents' choice

### 2. **Prepare resources needed for DBS testing**

- Hepatitis B Dried Blood Spot Testing kit includes: request form, clear bag, alcohol wipe, instruction sheet, reply-paid specimen bag, automated safety lancet, Dried Blood Spot card
- Infant's NHS number
- Child health record
- Non-sterile protective gloves
- Sharps box
- Cotton wool / gauze
- Hypoallergenic spot plaster

### 3. **Complete DBS kit documentation**

- Check the expiry date of the blood spot card and place on a clean surface
- The infant's NHS number on the card is mandatory in England
- Complete all fields
- Fill in request form with demographic details, hepatitis B vaccine history, maternal hepatitis history and GP details

### 4. **Carry out DBS test**

- Recommend comfort measures for the infant
- Clean the heel with the alcohol wipe
- Allow the heel to dry completely
- Wash hands and apply gloves
- Ensure the infant is warm and comfortable (additional warming of the foot is not required)
- Use an automated safety lancet, placed firmly against the infant's heel
- The aim is to fill each circle on the card with a single drop of blood
- Wait for the blood to flow – do not squeeze the foot
- Allow the blood to fill each circle by natural flow and seep through from front to back
- Do not layer the blood
- Do not compress the blood spot
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- Wipe excess blood from the heel and apply gentle pressure with cotton wool / gauze
- Apply a spot plaster if necessary
- Allow spots to air-dry away from direct sunlight or heat before placing in glassine envelope

### 5. **Process the sample**

- Send the card to the lab within 24 hours
- Record taking the blood spots in the infant's Red Book and in GP notes
- Inform parents that they will be contacted by the Practice when the results are back from the lab.
- Contact the parents when the blood spot test results are back from the lab
- Record blood spot results in infant's medical record.
- The test detects the presence of Hepatitis B surface antigen – HBsAg - and hence identifies whether or not the child has the infection. The test doesn't routinely look for antibodies and hence will not show immunity.
- If the test result is HBsAg positive the infant should be referred for paediatric assessment and management. If the test result is HBsAg negative reassure the parents the child is not infected.

## **4. Applicable Service Standards**

### **4.1 Applicable national standards (e.g. NICE)**

To support the delivery of an effective and high quality immunisation service, providers must refer to and make comprehensive use of the following key resources:

The evidence base for vaccination programmes is available in the following national documents:

- Public Health National Service Specifications 00 and 01  
<https://www.england.nhs.uk/publication/public-health-national-service-specifications/>

- The NHS Constitution
- Department of Health (2006) Immunisation against Infectious Disease/National Policy (Green Book) [www.dh.gov.uk/greenbook](http://www.dh.gov.uk/greenbook) .
- Health Protection Agency (2005) Minimum standards for Immunisation Training
- Every Child Matters outcomes (2004)
- Nursing and Midwifery Council (2008) Standards for medicines management: HMSO: London
- Quality criteria for an effective Immunisation programme (HPA, 2012) Protocol for ordering, storing and handling vaccines (DH Sept 2010)
- National Patient Safety Agency - Advice on vaccine cold storage Official Immunisation letters (DH)
- ImmForm information <http://immunisation.dh.gov.uk/immform-helpsheets/>
- British National Formulary <http://www.bnf.org/bnf/index.htm>
- JCVI (Joint Committee on Vaccinations and Immunisations)
- WHO - World Health Organization - Immunisations.

This list is not exhaustive and the provider will be expected to respond to new and emerging guidance relating to vaccination.