Brighton and Sussex University Hospitals NHS Trust

# Antenatal screening for infectious diseases: Hepatitis B

Maternity Protocol MP006

Date Agreed: December 2019

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| **Guideline Reviewer:** | Helen Green |
| **Manager Responsible:** | Karen Gregory |
| **Version:** | 4.0 |
| **Approval Committee:** | Women's Services Safety and Quality Committee |
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| **Cross Reference:** | **MP001** Provision and Schedule of Antenatal Care<br>BSUH Neonatal Department Medical Guidelines: HBV (2013) Postnatal Management of Infants Born to Mothers with Hepatitis B |

# Contents

## Key Principles

A protocol is a set of measurable, objective standards to determine a course of action. Professional judgement may be used in the application of a protocol.

## Scope

This protocol applies to:
All women booking at any stage of pregnancy

## Responsibilities

***Midwives & Obstetricians:***

- To access, read, understand and follow this guidance
- To use their professional judgement in application of this protocol

***Management:***

- To ensure the protocol is reviewed as required in line with Trust and National recommendations
- To ensure the protocol is accessible to all relevant staff

# 1 Antenatal Screening for Hepatitis B

Background to the screening programme is given in Appendix B.
For Designated programme lead for maternity services and Link speciality staff please see Appendix A

## 1.1 Aims

The NHS Infectious Diseases in Pregnancy Screening Programme ensures that all pregnant women and people are offered and recommended screening for Hepatitis B [Public Health England (PHE) 2018b]

## 1.2 Objectives

- To ensure that women with hepatitis B are identified early in pregnancy to facilitate appropriate assessment and management for their health by an appropriate specialist (eg Specialist Midwife for Reproductive Health and Wellbeing) within 6 weeks of the screening test result being received by maternity services.
- To reduce the risk of mother-to-child transmission of hepatitis B
- To facilitate appropriate neonatal referral and management. [PHE 2018b]

## 1.3 Expected Health Outcomes

Our aim is to reduce the risk of a mother-to-child transmission of hepatitis B and safeguard the woman's own health [PHE 2018b]

# 2 Screening for Hepatitis B in Pregnancy

## 2.1 Pre-Screening information: enabling informed choice

### 2.1.1 At the first antenatal contact with the midwife, the woman should be given verbal and written information about hepatitis B. This should include the benefits of screening for both the woman and her unborn baby **[National Institute for Health and Care Excellence (NICE) 2008, PHE 2018b]**.

### 2.1.2 Screening should be offered and recommended.

2.1.3 The trust uses the NHS Screening Programmes information booklet: 'Screening tests for you and your baby'. This includes the section 'Infectious Diseases'. This leaflet may be sent to the woman or person by post prior to the first appointment or given out at the first appointment. The midwife must document in the hand held notes that the leaflet has been received by the woman or person.

2.1.4 Copies of 'Screening tests for you and your baby' are available in some other languages and can be downloaded via the Public Health England website: https://www.gov.uk/government/publications/screening-tests-for-you-and-your-baby-description-in-brief. If the leaflet is not available in the language required from the national website, it is possible to ask for the leaflet to be translated via the trust's Equality and Diversity Team.

2.1.5 Interpreting services (including sign language) should be used for communicating with parents who are not fluent in English at all stages of the screening pathway.

2.1.6 Where there are specific communication requirements [e.g. English is not the woman's first language, visual/ hearing impairment], appropriate interpretation services should be used at booking and all subsequent stages in the screening pathway. For further guidance see also the trusts Accessible Communications Guidelines via the Equality and Diversity team.

2.1.7 If the midwife or doctor feels unable to answer all questions or the woman requests further advice/information about any aspect of Hepatitis B, then a direct referral can be made to the Specialist Midwife for Reproductive Health and Wellbeing for specialist counselling (see contact list Appendix A).

# 3 Offering Screening in Pregnancy

3.1 The Eligible Population: All women and people should be offered screening for Hepatitis B early in each pregnancy regardless of the results of Hepatitis B screening in previous pregnancies [NICE 2008, PHE 2018b, PHE 2019]

3.2 The midwife or doctor should discuss the reasons why screening for Hepatitis B is recommended, the results process and follow-up if diagnosed with Hepatitis B infection.

3.3 Screening should be offered early in pregnancy, ideally by 10 weeks [NICE 2008]. The aim is to screen all women before 10 weeks, however screening can be offered at any point during the pregnancy.

3.4 Testing should also be available on request at any stage of pregnancy should a woman consider herself to be at risk of infection [PHE 2018b].

3.5 Women booking late or who arrive unbooked in labour should be offered screening at the first available opportunity (see sections 2.3 and 2.4).

3.6 Women who have booked elsewhere and transferred care to BSUH NHS TRUST should be offered repeat screening. This ensures a result is available in-house for all staff to access electronically if the hand held notes are not available and for completion of cohort data. If a woman declines repeat testing having been screened elsewhere, then a copy of the original result from the previous booking unit must be inserted in both the hand held notes and a further copy sent to the Antenatal Screening Co-ordinator and SMRHW. A booking test declined form (Appendix C) should be completed and the declines process should be implemented)

3.7 The midwife should document in the hand held notes that discussion has taken place and the woman's decision to accept [consent to screen] or decline screening. Screening should only be performed after documented informed consent; this does not require a signature from the woman.

3.8 There is currently no national policy to offer repeat Hepatitis B screening later in pregnancy . However, in the following circumstances, the midwife should consider a repeat test at 28 weeks if:

- If a woman and partner continue to engage in at-risk behaviour during the pregnancy (eg Intravenous drug use - IVDU)
- If the woman is from a high risk group and/ or partner is from a high risk group and Hepatitis B status is unknown. High risk groups include IVDUs or if the woman and/or her partner were born in or have lived in countries with high rates of Hepatitis B infection (mainly Asian and African countries,

commonly China, Thailand, India, Africa & Eastern Europe) with no history of Hepatitis B vaccination in the past.

- The woman discloses that partner is Hepatitis B positive and she does not have a clear history of vaccination [PHE 2018b]

These cases should be considered on an individual basis. Advice can be sought from the Specialist Midwife for Reproductive Health and Wellbeing as necessary (see Appendix A).

# 4 Women Booking Late

4.1 Women booking late must be offered screening at the first appointment with the midwife. Where women book at 24 weeks gestation or later, the blood specimens should be marked urgent and positive results reported (as per positive results pathway section 5) within 24 hours (1 working day) of the sample being received in the laboratory [Royal College of Pathologists (RCP) 2013].

4.2 In such cases it is the responsibility of the midwife booking the woman to follow up results within 5 working days of the sample being taken. The midwife must agree a plan with the woman to communicate the results to her. This plan must be documented in the hand held notes [RCP 2013].

# 5 Women who arrive un-booked or without screening results in labour

5.1 Women who arrive un-booked or without screening results in labour must be offered screening on admission by the midwife responsible for her care. Consideration should be given to the stage of labour, woman's condition and specific risk factors for Hepatitis B. The midwife should document all discussions that have taken place in the hand heldnotes [PHE 2018b].

5.2 If the woman is considered to be at increased risk of Hepatitis B infection and delivery is imminent it may be necessary to consider urgent screening. Results can normally be obtained within an hour from the laboratory during normal working hours. In these cases laboratory staff must be informed that the result is urgent. Out of normal working hours, the on-call microbiologist should be contacted so that there is no delay in diagnosis [PHE 2016a, PHE 2018b].

5.3 Presumptive action should be taken on a preliminary positive result taken on a woman in labour until such time as the result is confirmed .

5.4 If consent is withheld for screening during labour, the midwife caring for the woman should re-offer screening after delivery and document discussions/ decisions in hand heldnotes [PHE 2018b].

5.5 The midwife caring for the woman in labour should inform the on-call neonatal doctor when either:

- consent to screening is withheld during labour
- a woman has been screened but delivery is likely before the result is available

5.6 In all cases, blood results must be obtained before discharge from the hospital / maternity services and documented in the hand heldnotes by the midwife responsible for the woman's care. Positive results will be actioned accordingly.

# 6 Women known to be Hepatitis B positive prior to screening

6.1 Where a positive diagnosis of Hepatitis B is documented and known to the health professional (midwife or doctor), they should refer the woman to the Specialist Midwife for Reproductive Health and Wellbeing by phone immediately (see Appendix A) to ensure appropriate management. Management for these women is the same as for women diagnosed via antenatal screening and detailed in section 10.0

6.2 Known Hep B positive women should still be re-screened for Hep B as the blood markers can change with each pregnancy. Additionally they may not be known to local services and the positive result triggers the laboratory to inform the SMRHW which acts as an additional failsafe to ensure follow-up. When completing the form write 'Hep B positive status known' and include date of prior diagnosis and where it was performed.

6.3 If the woman declines a re-screen for Hep B then this should be recorded as 'Hep B screening test not required – positive status known' rather than declined. All other antenatal screening tests should be offered as routine.

# 7 Declining Screening

7.1 Screening is optional. All women have the right to decline screening. In these cases the midwife should complete a booking blood test declined form (see Appendix C) and return to the Specialist Midwife for Reproductive Health and Wellbeing.

7.2 The decision to decline screening must be clearly documented by the midwife in the hand held notes. The 'decline' box must also be ticked on the booking blood request form.

7.3 Where women decline screening, the midwife should ensure that the woman is aware she can opt for screening at any stage later in her pregnancy and is aware how to arrange this [PHE 2018b].

7.1 The woman should also be informed that as they have declined Hepatitis B screening, they will be contacted by the SMRHW to further discuss their choices. This contact will usually be within 10 working days of receipt of the decline form and ideally by 20 weeks. Ideally this discussion takes place in person. At this contact the SMRHW will:

- discuss the woman decision to decline and ensure that they are fully aware of the benefits of screening for both themselves and their baby
- reoffer the screening test and where this is accepted arrange testing and follow up of the result [PHE 2018b]

7.2 If the woman remains unscreened at 28 weeks the midwife should re-offer screening at the 28 week visit along with the other blood test routinely offered at this appointment. The midwife should document in the hand held notes any discussions that take place and the woman decision to accept or decline screening after re-offer.

7.3 The SMRHW will follow up at 32 weeks and if the woman remains unscreened, the SMRHW will inform the following staff by email:

- Link Neonatal Consultant
- Link GUM consultant
- Link Obstetric Consultants
- Consultant Virologist
- Antenatal Screening Co-ordinator
- Neonatal secretary
- Consultant Neonatologist (who will co-ordinate a team meeting to formulate a postnatal management plan individual to the woman or person's circumstances) [PHE 2018b]

# 8 Taking the Sample

8.1 The sample may be taking at booking by the midwife or practice nurse or phlebotomist according to local arrangements:

- A 5 ml sample of blood is required in a gold topped [clotted] bottle. This same sample can be used for HIV and Syphilis screening.
- The requestor [midwife or doctor] should complete all fields on the Antenatal Booking Blood Request Form. The request from is in triplicate, and the requestor must ensure that all hand writing has transferred through and is legible on all three sheets of the form. Where adhesive patient labels are used, a label must be affixed onto each of the three sheets of the request form. The form includes tick boxes for 'accept' or 'decline' of syphilis screening as well as boxes to indicate whether this is a 'first booking', 'urgent' or 'repeat' sample.

8.2 The sample must be labelled according to laboratory guidelines. The minimum acceptable identifiers include forename, surname [no abbreviations], plus date of birth and NHS number or hospital ID number. The NHS number is the preferred number to use [PHE 2016a].

8.3 If a woman discloses previous hepatitis B infection, include details on the request form.

8.4 Additional information should be included on the request form if relevant: Including family origins, recent immigration (if lived in an area of world where Hep B is endemic) and first language (if not English) to assist the SMRHWin follow-up of positive results.

8.5 Samples are sent to Brighton Pathology for processing and should arrive within one working day of sample collection.

# 9 Unacceptable Samples

9.1 Where the sample is deemed to be unacceptable by the laboratory because of insufficient blood, incomplete data on the request form or for any other reason, the laboratory will inform the sample requestor to request a repeat. In such cases, a repeat sample should ideally be taken within 10 working days of the request being received by the maternity unit [PHE 2016a, PHE 2018b].

9.2 Where repeat samples take longer than 10 working days to arrange [for example the woman is away or declines to attend for repeat sampling within 10 days], the midwife should document reasons why there has been a delay.

9.3 The midwife must always follow up the results of repeated samples and arrange a plan [documented in the handheld notes] being mindful that there has already been a delay in obtaining a result because of the need to repeat.

# 10 Results Processes

10.1 Accessing results (Including failsafe to ensure all women who accept screening receive a result)

10.1.1 Results will be available to staff within 5 working days on ICE (the electronic results reporting programme) or by phoning the virology laboratory at RSCH on 01273 696955 X 4627 [PHE 2016a].

10.1.2 **Failsafe- 10 day check**: It is the responsibility of the sample requestor to follow up results within 10 working days of the sample being taken [see also section8.1.3 for situations where this is not possible]. The sample requestor should ensure positive results have been acted upon and follow up missing results or laboratory requests for a repeat sample. The sample requestor must document that results were followed up and acted on. An example proforma that can be used for recording that results were followed up is given in Appendix E.

10.1.3 It is recognised that some community clinics do not have facilities for venepuncture and therefore women attend hospital phlebotomy to have bloods taken. In such cases, the sample requestor will not know when the bloods were actually taken and so cannot follow up results by 10 days. In such cases it is essential that the requestor follows up results as per section 10.1.4.

10.1.4 **Failsafe- check at follow up antenatal appointment:** It is the responsibility of the health professional (midwife or doctor) providing care at the next antenatal appointment (usually at the 16 week appointment) to check the results, document results (with informedconsent) in the hand held notes and inform the woman of the results during the appointment [PHE 2018b].

10.1.5 **Failsafe- check at time of dating scan:** As an additional failsafe, the Antenatal Screening Support Worker (ASSW) will ensure a full set of booking blood results are available at the time women attend dating scan. This allows early identification of missing results that can be actioned after the scan. With consent, missing bloods will be repeated at this point of contact by the ASSW. The ASSW will then inform, via email, the Antenatal Screening Team and named community midwife. It is then the responsibility of the named community midwife to follow up results within 10 working days and inform the woman as per 10.1.2.All women and people should be notified of their results following testing and this includes women who terminate or miscarry following screening. This is especially important with screen positive results to ensure women are referred and seen for specialist follow up within the timeframe detailed in section 10.0 [PHE 2016a, PHE 2018b]

10.1.6 It is recognised that not all women will be attending for dating scan. This might include women booking late or transferring in from another trust or women who decline scans. Therefore this is will not capture all women which is why the failsafe checks detailed in sectionare mandatory.

10.1.7 **Women who terminate or miscarry**: All women should be notified of their results following testing and this includes women who terminate or miscarry following screening. This is especially important with screen positive results to ensure women are referred and seen for specialist follow up within the appropriate timeframe [PHE 2016a, PHE 2018b]..

# 11 Missing Antenatal Screening Results

11.1 Results should be documented in all cases at the next antenatal appointment [PHE 2018b]. In rare circumstances, a result may not be available at the next appointment.The midwife or doctor should phone the laboratory to try and ascertain how long results will take and agree with the woman, a plan to communicate the results to them.

11.2 If having phoned the laboratory it is apparent that there is no result, then a repeat screening test should be recommended and where accepted, taken that day or within 10 working days maximum [PHE 2016a, PHE 2018b].

11.3 Where a repeat sample is taken, a plan must be agreed with the woman as to relaying the result to her within a specified time frame.

11.4 Full documentation of the above should be made in the hand held notes by the midwife or doctor trying to access results.

# 12 Negative result HEP B

Where a result is negative, the health professional (midwife or doctor) informing the woman of the result should explain the following:

- A negative result does not confer protection on the woman. If a woman (or partner) engages in high risk behaviour there is a risk of acquiring HBV during pregnancy (UKNSC 2009). Informing a woman of a negative test result should be used as an opportunity for general sexual health promotion and for the dangers of becoming infected during pregnancy (DoH 2003).
- Women should be informed that she can request repeat screening at any stage of the pregnancy if she request to do so or deem herself at risk or changes her sexual partner (PHE 2014).

# 13 Follow Up Of Hepatitis Positive Result

13.1 All confirmatory testing is performed in Brighton pathology laboratory.

13.2 The virology laboratory staff will inform the Specialist Midwife for Reproductive Health and Wellbeing [SMRHW] and designated Health Advisors [who provide cover if the SMRHW is absent] by email of a Hepatitis B positive or equivocal result. In addition, the lab will phone the Health Advisor Office to ensure the result has been passed on to the Health Advisors.

13.3 All positive results will be actioned within 2 working days of the result being received by the Health Advisor team.

13.4 Hepatitis B positive results are available to all staff with access to ICE - the laboratory results reporting system.

13.5 The SMRHW or HA will first attempt to contact the woman by phone within 48hours (2 working days) of the result being received. If contact is not made by phone then a letter will be sent to the woman that same working day offering an appointment to be seen within 5 working days after the letter's scheduled arrival, will be sent to the woman that same working day.

13.6 At the first appointment, in addition to informing the woman of her result the SMRHW will complete the following as appropriate:

13.6.1 Confirmatory testing is performed on a second specimen to confirm the results obtained from the first specimen and to ensure that the patient details on the original specimen were correct (Recommendation: DoH 2003). Hepatitis B DNA, Hepatitis A and Hepatitis C screening also performed.

13.6.2 Bloods are taken to assess LFT, AFP and INR

13.6.3 Consent is sought to document result in hand held notes and inform all relevant parties involved in on-going care. This includes: Consultant obstetrician, consultant neonatologist, community midwife and immunisation nurse specialist.

13.6.4 Written parental consent is obtained to vaccinate the baby: the immunisation consent form in the Personal Child Health Record [PCHR] is completed.

13.6.5 Copies of the Immunisation Consent Form are sent to the neonatal secretary for baby notes to be made up and a second copy placed in the maternal hand held notes.

12.6.6 Hepatitis B investigation form is sent to local Health Protection Team Link (consultants for communicable diseases): who will forward accordingly [see contact list Appendix A). The woman must be informed of the need for statutory notification of a hep B positive result (NHS England 2016).

13.6.6 The SMRHW will inform the Community Child Health Information Service (CCHIS) who track vaccine administration of all antenatal women found to be Hep B positive.

13.6.7 The SMRHW co-ordinates on-going care and support as well as partner notification with the woman's consent.

13.6.8 Screening of partner/ other children/ other family members with Hepatitis B immunisation as appropriate should be organised (DoH 2003). This is co-ordinated by the SMRHW.

13.7 Where women do not attend the first appointment, the SMRHW will review care with the multidisciplinary team and develop an action plan for further follow and ongoing care.

13.8 The SMRHW contacts the woman to confirm Hepatitis B status from the confirmatory testing and inform her of the other blood test results. The SMRHW documents results in the GUM notes.

13.9 The SMRHW makes written referral to the liver unit as soon as the confirmatory and DNA results are back which normally takes around 2 weeks.

13.10 Vaccine is kept in the fridge on delivery suite at RSCH and in the fridge on SCBU at PRH.

13.11 If immunoglobulin is required this will have been pre-ordered by the Specialist Midwife for Reproductive Health and Wellbeing through the Lead Antimicrobial Pharmacist. It will have been made available on delivery suite six weeks before

The midwife responsible for the care of the mother during labour should inform the neonatal doctor on-call for labour ward that the infant will require immunisation.

# 14 Care of Baby Born to HBV Infected Mother

The section must read in conjunction with the BSUH neonatal department – medical guidelines: HBV (2011): Postnatal management of infants born to mothers with Hepatitis B. Available on the intranet.

14.1 A full course of vaccination during the first years of life is usually effective in preventing infection of the baby. This involves:

- an initial dose within 12 hours of birth
- 2nd dose at one month
- 3rd dose at two months
- 4th dose at 12 months
- blood test at 12 months to check for chronic persistent infection (Public Health England 2015).
- A booster is also advised at 5 years.

14.2 The vaccine schedule detailed above should be administered to babies of women who are positive for Hepatitis B surface antigen (HBsAg) (UK NSC 2009).

14.3 The vaccine schedule detailed in above plus Hep B immunoglobulin (HBIG) (within 12 hours of birth) should be given to babies of women who are positive for Hepatitis B e-antigen (HBeAg) as this marker indicates increased risk of transmission (UK NSC 2009). Babies born to mothers who have a high DNA level but are e antigen negative may also be given immunoglobulin after case review by the Hepatology Consultant. Note the immunoglobulin should be given in a different site to the vaccine.

14.4 The table below clarifies which babies require Vaccine and which also require HBIG (Public Health England [2016 b] The Green Book)

Table 18.4 Vaccination of term babies according to the hepatitis B status of the mother

| Hepatitis B status of mother | Baby should receive | |
|---|---|---|
| | Hepatitis B vaccine | HBIG |
| Mother is HBsAg positive and HBeAg positive | Yes | Yes |
| Mother is HBsAg positive, HBeAg negative and anti-HBe negative | Yes | Yes |
| Mother is HBsAg positive where e-markers have not been determined | Yes | Yes |
| Mother had acute hepatitis B during pregnancy | Yes | Yes |
| Mother is HBsAg positive and anti-HBe positive | Yes | No |
| A woman who is HBsAg seropositive and known to have an HBV DNA level equal or above $1x10^6$IUs/ml in an antenatal sample* | Yes | Yes |

* Where viral load testing has been performed to inform the management of the mother.

14.5 If an infant is later identified as having missed HBIG at birth despite being eligible, HBIG can be given up to 7 days after birth.

14.6 The midwife responsible for caring for the woman in labour will inform the on-call paediatrician prior to the birth that the woman is Hepatitis B positive and neonatal immunisation will be required. Parental consent for the baby's immunisation is obtained prior to the birth by the Specialist Midwife for Reproductive Health and Wellbeing. The first dose of Hepatitis B vaccine should be given within 12 hours of birth by the on-call paediatrician, midwife or ANNP. (See neonatal policy for further details – including administration of immunoglobulin).

14.7 If a woman books late and/or a Hepatitis B test result is not available, Hepatitis B vaccine is given to the infant unless a result will be available within 24 hours of delivery or before discharge (whichever is sooner). Information about vaccine and Hepatitis B immunoglobulin administration, dose and supplies is given in HSC 1998/127 [2] and in Immunisation against infectious disease. Further information about vaccination is available in: DoH [2006] Immunisation against infectious disease – 'The Green Book'.

14.8 Babies with a birth weight of 1500g or less, born to mothers infected with Hepatitis B, should receive HBIG in addition to the vaccine, regardless of the e-antigen status of the mother (UK NSC 2009). (See neonatal policy for further details).

14.9 See neonatal policy regarding babies born to women who are HIV positive or where a parent is an intravenous drug user or likely to progress to injecting.

14.10 Mothers should be given written information about the number of injections their babies require, when the injections should be given and who will be responsible for the administration of each dose. This includes the importance of completing the full course of immunisation.

14.11 Following administration of the first vaccine, the health professional administering the vaccine and or immunoglobulin documents in the baby notes and where possible the PCHR [red book] that these have been given. The midwife, ANNP or paediatrician also sends copies of the Hepatitis B Notification Form to the people listed on the bottom of the form. Note that there is a different form in use for RSCH and PRH to account for the different geographical areas covered by each site.

14.12 The midwife should telephone the SMRHW to advise of date/ time of birth and date/time that the first vaccine was administered (message can be left on mobile phone). The midwife should document actions in the postnatal notes.

14.13 The neonatal secretaries also send a copy of the Hepatitis B Notification form to the SMRHW as a second alert that the baby has been born and the first vaccine has been administered.

14.14 The Child Health Record Unit informs the consultant community paediatrician (CCP) who arranges for a blood test form to be sent to the parents at 1 year. The blood test sample is taken at the Royal Alexandra Children's Hospital. Results are returned to the CCP who subsequently informs the parents and GP.

14.15 Follow-up to ensure that babies have received their full vaccine schedule varies between localities. The following staffs are informed by the SMRHW by email with details of the woman and the baby's GP: the Community Child Health Information Service Manager & Community Child Health Information Service. They then follow up with the practice nurse team at the surgery to ensure the baby has been completed the full course of vaccinations.

# 15 Audit and monitoring

15.1 Minimum auditable standards

Public Health England requires that the following data is collected on a quarterly basis and reported annually (see Public Health England [2016 a] for full details of current standards and all definitions):

- number of women booking
- number of women eligible for screening
- number of women tested (Coverage: Standard 2)
- number of women declining screening
- number of women diagnosed with new Hep B infection
- number of women diagnosed with old HBV infection (ie: diagnosis made before current pregnancy)
- number of women with high infectivity (new or previous diagnosis)
- Number of women attending for specialist assessment within 10 working days of a positive result (Standard 5/6)
- number of babies born to positive women who receive appropriate vaccinations within 12 hours of birth (Standard 7)

15.2 Current data requirements of the Key Performance Indicators for screening are available at http://www.screening.nhs.uk/kpi ]: ID2 - timely referral of Hepatitis B positive women for specialist assessment. Data is submitted quarterly.

15.3 The Specialist Midwife for Reproductive Health and Wellbeing will maintain a database of all women declining screening and the outcome

15.4 The Specialist Midwife for Reproductive Health and Wellbeing will maintain a database of all women with a hep B positive status and outcome of babies born to Hep B positive mothers. This will include details regarding administration of vaccine and where relevant HBIG.

15.5 An annual audit of women's notes will take place to review documentation processes.

15.6 Data and audit findings will be included in the BSUH Trust Annual Antenatal and Neonatal Screening Report compiled by the Antenatal Screening Co-ordinator which is circulated to board level with in the trust and to the following [see contact list in Appendix A]:

- Regional Public Health England lead
- Regional Screening and Immunisation Lead
- Regional Quality Assurance Screening Lead

# 16 Training

16.1 All midwives must attend a yearly update on antenatal screening for infectious diseases as part of their mandatory education update sessions.

16.2 All midwives new to the trust should complete the Antenatal & Newborn Screening eLearning Module available at www.e-lfh.org.uk .This includes a section on antenatal screening for infectious diseases. [NOTE THIS LINK WILL BEACTIVE FROM 3-04-2017]

16.3 All band 5 midwives must complete the Antenatal & Newborn Screening eLearning Module as part of their competencies before they can apply for a band 6.

# 17 Governance

17.1 All incidents related to antenatal screening for Hepatitis B are reported via the trusts internal reporting system known as DATIX.

17.2 All incidents related to screening for Hep B should also be reported to the Antenatal screening co-ordinator who will liaise with the Maternity Risk Manager and where necessary complete a SIAF [Screening incident assessment form] in order to notify the Regional QA screening team and the Screening and Immunisations lead.

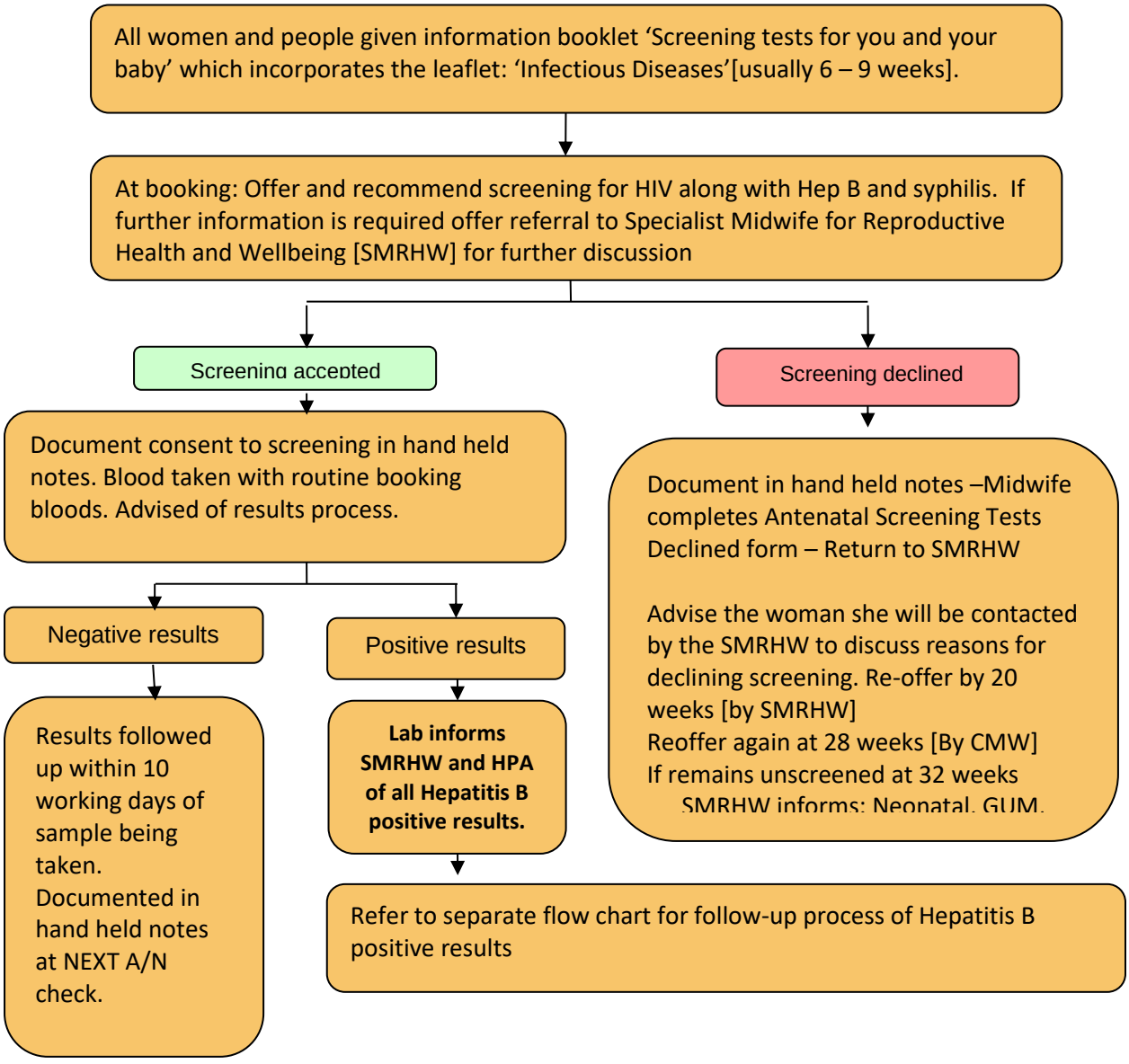
17.3 Where relevant incidents should also be reported to the laboratory lead, Pathology Quality Team, SMRHW and GUM lead consultant.

17.4 For further information relating to management of incidents please refer to the protocol: MD085 Maternity & Gynaecology Risk Management Strategy.

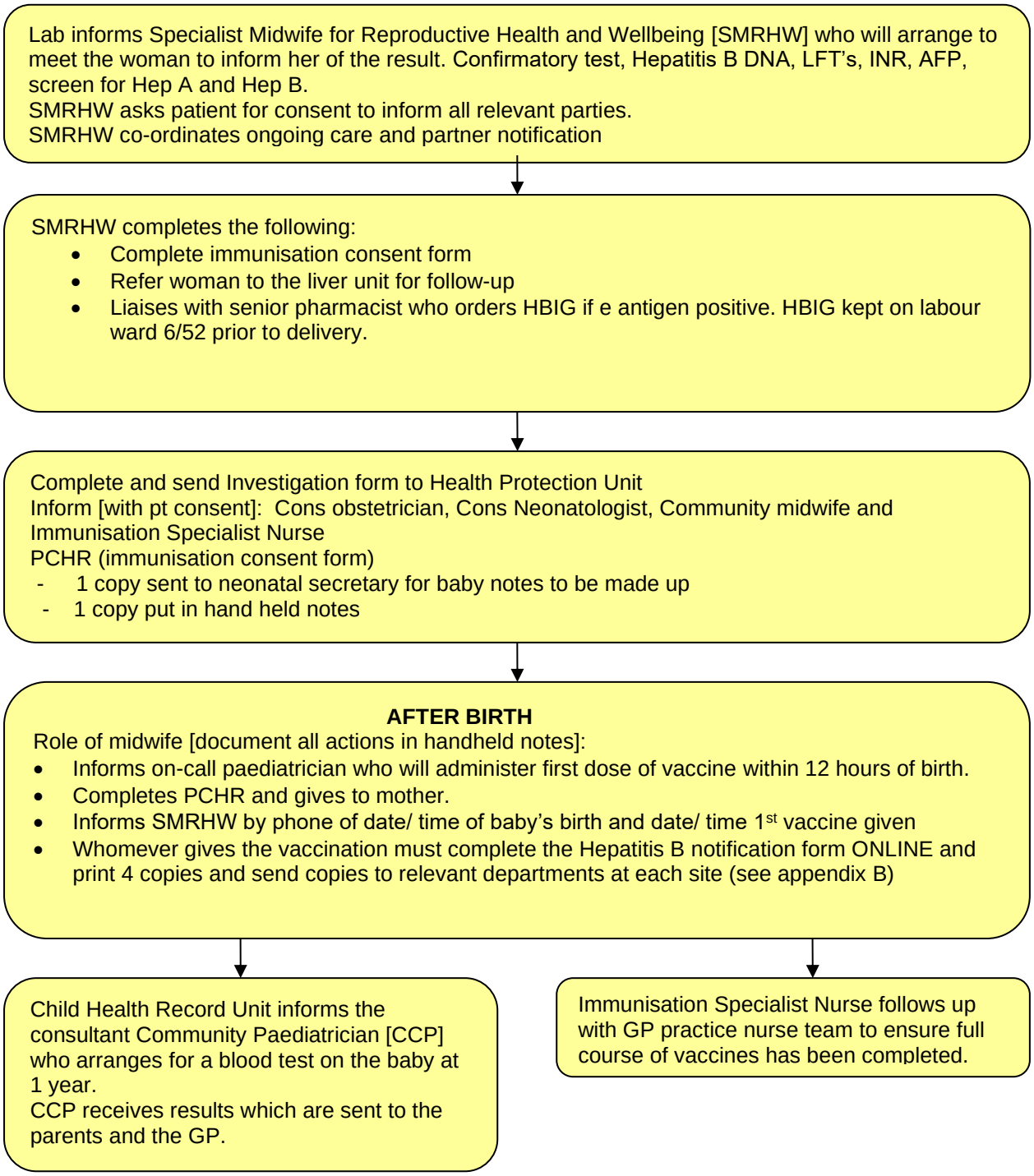
17.5 The Antenatal Screening for Infectious Diseases Steering Group meets twice yearly and will address all issues pertaining to Hep B screening.

# 18 Care Pathways

## 18.1 Antenatal screening for infectious diseases Hepatitis B



## 18.2 Care Pathway: Follow-up of Hepatitis B positive result



# 19 References

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UK NSC (2006) Policy statement on Hepatitis B screening in pregnancy: http://www.screening.nhs.uk/Hepatitisb

Further information about vaccination is available in: Department of Health (2006) Immunisation against infectious disease – 'The Green Book'; Available at: www.dh.gov.uk/en/Publichealth/Healthprotection/Immunisation/Greenbook/DH_4097254?CONTENT_ID=4097254&chk=isTfGX

### 19.1 Patient information

UK National Screening Committee (2008) 'Screening Tests for You and Your Baby'.
Click on this link to view/ download a copy of the information leaflet 'Testing for infections in pregnancy'.
Patient information : http://infectiousdiseases.screening.nhs.uk/public

### 19.2 Further information

Further information about the NHS Infectious Diseases in Pregnancy Screening Programme is available from: http://infectiousdiseases.screening.nhs.uk/professionals

# Appendix A – Key Personnel and Contact Information

Designated programme lead for maternity services
Karen Creed - Antenatal Screening Co-ordinator

**Designated Programme Lead For Maternity Services**
Karen Creed - Antenatal Screening Co-ordinator

**Link Speciality Staff**

| | |
|---|---|
| David Utting | Consultant Lead for Obstetrics |
| Yvonne Gilleece | Consultant Lead for GUM |
| Rob Bomont | Consultant Lead for Neonatology |
| Karen Gregory | Antenatal Screening Co-ordinator |
| Rosie Jennings | Specialist Midwife for Reproductive Health and Wellbeing |
| Sumita Verma | Hepatology Consultant |

**Laboratory Team**

| | |
|---|---|
| Dr Mohammed Osman Hassan-Ibrahim | Consultant Virologist |
| Nick O'Flanagan | Laboratory Manager - Virology |
| Graham Terrey / Clare Reynolds | Laboratory Leads |
| Jackie Longbone | Laboratory Quality Officer |
| John Mcbride | Pathology Quality Manager |

| | | |
|---|---|---|
| Antenatal Screening Coordinator at BSUH [cross site] | Karen Gregory | Mobile: 07876 357 423<br>Office RSCH 01273 696955 X 67477<br>Office PRH: 01444 441 881 X 5404<br>FAX: 01273 664732 |
| Antenatal Screening Support Midwives [BSUH] | RSCH: [PT] | Office RSCH 01273 696955 X 67477<br>Office PRH: 01444 441 881 X 5404<br>FAX: 01273 664732 |
| | PRH: [PT] | Office: 01444 441881 X 5404<br>FAX: 01444 415865 |
| Fetal Medicine Consultants at BSUH | RSCH:<br>David Utting | David.Utting@bsuh.nhs.uk |
| | PRH:<br>Jo Sinclair | Jo.Sinclair@bsuh.nhs.uk |
| Laboratory Service Leads for Virology/Microbiology | Lead consultant:<br>John Paul | 01273 696955 X 4627<br>John.Paul@bsuh.nhs.uk |

| | | |
|---|---|---|
| | Dr Mohammed Osman Hassan-Ibrahim<br>Consultant Virologist | MohammedOsman.HassanIbrahim@bsuh.nhs.uk<br>Virology Section<br>Department of Microbiology & Infection<br>Tel. 01273696955 ext 3584<br>Pager: 07623809015<br>Mobile: 07940 933 197 |
| | Nick O'Flanagan<br>Laboratory Manager | Nicholas.O'Flanagan@bsuh.nhs.uk |
| Link Hepatology Consultant | Dr Sumita Verma | |
| Link Neonatal Consultant | Rob Bomont, consultant neonatologist | Rob.Bomont@bsuh.nhs.uk<br>Trevor Mann Baby Unit, RSCH<br>Tel 01273 696955 X 4188 |
| Specialist Midwife for Reproductive Health and Wellbeing | Rosie Jennings | rosie.jennings@nhs.net<br>Address:<br>Specialist Midwife for Reproductive Health and Wellbeing<br>Claude Nicol Clinic<br>RSCH, Eastern Road<br>Brighton, East Sussex, BN2 5BE<br>Tel: 01273 664716 (option 2) / 07919627603 |
| Link GUM Consultant | Yvonne Gilleece | Yvonne.gilleece@bsuh.nhs.uk<br>Tel: 01273 664707 |
| Antenatal and Newborn Screening Programmes (South East)<br>Quality Assurance Service | Emma Proctor<br>Quality Assurance Advisor | emmaproctor@nhs.net<br>07919691456 |
| Public Health England South East Link | Jennie Thomas<br>Screening and Immunisations Manager<br>Public Health England South East | Public Health England South East<br>York House<br>18-20 Massetts Road<br>Horley<br>RH6 7DE<br><br>Direct Line: 0113 825 4694<br>Mobile: 07795644708 |

# Appendix B - Background to Antenatal screening for Hepatitis B

- Hepatitis B is an infectious disease of the liver caused by the HBV virus. In many cases, the virus does not cause any symptoms (NICE 2008).
- HBV is a blood borne infection and can be transmitted through sexual contact, contaminated blood e.g. needle sharing (IV drug use), having a tattoo or piercing with needles that have not been sterilised, sharing toothbrushes or razors or by vertical transmission (mother-to-child transmission) (UK NSC 2006).
- The risk of perinatal transmission is dependent on the status of the maternal infection. Approximately 70-90% of mothers who are HBV e-antigen [HBeAg] positive will transmit the infection to the baby. The rate of transmission is approximately 10% in women with antibody to e antigen (AntiHBe) (UK NSC 2010).
- Infection can result in an acute or chronic infection. A chronic infection may result in cirrhosis of the liver and liver cancer. The earlier in life the infection occurs the greater the risk that it will lead to chronic infection, liver disease and early death (UK NSC 2010).

# Appendix C: Blood Test Declined Form

## Antenatal Booking Bloods – Screening Declined Form

*Form to be completed by the booking midwife for every woman or person who declines some or all of the screening tests for infectious diseases and emailed to rosie.jennings@nhs.net. These statistics are required for Public Health England.*

| | | | | |
|---|---|---|---|---|
| **Midwife's name:** | **Date of decline:** | | | |
| **Midwife's contact no:** | **Team:** *(circle)* | North | East | West |

Patient Details: *(Use label if available)*

| | | | | |
|---|---|---|---|---|
| **Name:** | **EDD:** | | | |
| **DOB:** | **Gestation:** | | | |
| **Hospital no.:** | **Site booked at:** *(circle)* | | RSCH | PRH |
| **NHS no.:** | | | | |
| **Address:** | | **Ethnicity:** | **Nationality:** | **Language:** |
| | **Mother:** | | | |
| | **Father:** | | | |
| **Contact number:** *(for Specialist Midwife for Reproductive Health and Wellbeing to call)* | | | | |

| **Which Tests Declined?** *(circle)* | **HIV** | **HEP B** | **Syphilis** | **ALL** |
|---|---|---|---|---|
| | | | | |

| **Reason(s) for decline?** | ✓ | **Comments** |
|---|---|---|
| Anxious about testing generally. Why? | | |
| Anxious as feels may be at risk. Why? | | |
| Feels testing is unnecessary? Why? If tested previously state where and when: | | |
| Other [e.g. needle phobic] | | |

*Please advise that the Specialist Midwife for Reproductive Health and Wellbeing will contact all women and people who decline screening for infectious diseases to discuss and offer further advice / support. If you have a specific concern you would like to discuss, please contact the Specialist Midwife for Reproductive Health and Wellbeing using the details below. Women or people who wish to discuss screening further can also self-refer by phone.*

| **Return form to:** | |
|---|---|
| **Rosie Jennings** Specialist Midwife for Reproductive Health and Wellbeing | **Email:** Rosie.Jennings@bsuh.nhs.uk **Phone:** 07919 627603 / 01273 523388 (option 2) |

*Updated October 2019 (RJ)*

## Appendix D - Staff to contact regarding Vaccinations

RSCH: Carol Park (senior infection control nurse)
Rosanna Raven (immunisation Lead Nurse)

PRH: Barbara Shepherd (Child Health Record Lead)
Dr Nick Kendall (West Sussex PCT Vaccinations Lead)

# Appendix E – Hepatitis B Notification form

## Notification Form for Baby who has commenced a course of Hepatitis B vaccination at birth (from 01/08/2017)

| **MIDWIFE:** Following delivery, please complete this form, email it to CHRD **AND** pass to the Screening Coordinator who will return it by email to the Public Health Protection Team at phe.sshpu@nhs.net | **CHRD Office** esh-tr.childhealth@nhs.net | |
|---|---|---|
| Hospital / Unit: | Trust: | |
| **Patient Details (Mother)** | Address: | Telephone No: |
| Forename: | | |
| Surname: | | |
| DOB: | | |
| NHS Number: | | |

| **Reason for baby commencing Hepatitis B course** *(please tick)* | |
|---|---|
| Mother Hepatitis B + ☐ | Hepatitis B + household member ☐ |

| **Patient Details (Baby)** | Address (if different from above): | Contact no: |
|---|---|---|
| Forename: | | |
| Surname: | | |
| NHS Number: | Sex of baby: *(please circle)* Male / Female | |
| Date of birth: | Time of Delivery: | |

| **GP Details:** Name: | Address: | Telephone No: |
|---|---|---|
| | | |

| **Informed Consent for Hepatitis B Vaccine Obtained** *(please circle)* Yes / No<br>Please send this notification form even if consent is NOT obtained. | | |
|---|---|---|
| Date Hepatitis B Vaccine given: | Time vaccine given: | Batch no: |
| Name of Midwife / Doctor: *(please print)* | | Telephone no. (incl. beep): |
| **Hepatitis B Specific Immunoglobulin (HBIG) given?** *(please circle)* Yes / No | | |
| Date HBIG given: | Time HBIG given: | Batch no: |
| Name of Midwife / Doctor: *(please print)* | | Telephone no. (incl. beep): |

**Please pass completed form to your screening coordinator AND email a copy to CHRD (as shown at top right of page) – Thank you**

## Appendix F– Proforma for recording results at 10 days

BOOKING BLOOD RESULTS TO BE CHECKED 2 WEEKS AFTER TAKEN: Clinic _____[surgery / children's centre]

| **Name, DOB, ID number** | | | | | Accepted /declined | Result | Date result | MW checking | Comments: results missing/ repeat required/ decline form sent/ referrals made? |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Group & Rhesus | | | | | |
| | | | | Hb | | | | | |
| | | | | Sickle and thal | | | | | |
| | | | | Rubella | | | | | |
| | | | | Syphilis | | | | | |
| Gest at booking | | MW at booking | | HIV | | | | | |
| | | | | Hep B | | | | | |
| Date booked | | Date booking bloods taken | | | | | | | |
| | | | | Downs screen | Accepted / Declined | | Tick if transfer booking: | | |
| | | | | Anomaly scan | Accepted / Declined | | | | |

| **Name, DOB, ID number** | | | | | Accepted /declined | Result | Date result | MW checking | Comments: results missing/ repeat required/ decline form sent/ referrals made? |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Group & Rhesus | | | | | |
| | | | | Hb | | | | | |
| | | | | Sickle and thal | | | | | |
| | | | | Rubella | | | | | |
| | | | | Syphilis | | | | | |
| Gest at booking | | MW at booking | | HIV | | | | | |
| | | | | Hep B | | | | | |
| Date booked | | Date booking bloods taken | | | | | | | |
| | | | | Downs screen | Accepted / Declined | | Tick if transfer booking: | | |
| | | | | Anomaly scan | Accepted / Declined | | | | |