

Hepatitis B immunisation

Women who are hepatitis B positive can transmit the infection to their babies around the time of birth. Women are therefore routinely screened for hepatitis B during pregnancy. Management of the infant is based on the results of these markers. Mothers will be either high risk or low risk. Babies born to highly infectious mothers (high risk) should receive HBIG as well as active immunisation (see table 1). HBIG should preferably be given within 24 hours of delivery and should be available on labour ward. HBIG may be given simultaneously with the vaccine but at a different site. Ideally, immunisation with vaccine should commence within 24 hours, although it should still be considered up to a week after exposure.

Table 1: Vaccination of term babies according to the hepatitis B status of the mother

Mother Hepatitis B status			Baby should receive	
HBs Ag	HBe Ag	Anti-HBe	Hep B vaccine	HBIG
Positive	Positive		Yes	Yes
Positive	Negative	Negative	Yes	Yes
Positive	Unknown	Unknown	Yes	Yes
Positive		Positive	Yes	No
Mother had acute hepatitis B during pregnancy			Yes	Yes
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.

Babies with a birthweight 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.

Administration of Vaccination/HBIG

New guidance from Public Health England (PHE) was released in July 2019, advising an increase in the dose of Hepatitis B IG to 250 iu for infants and children aged 0-4 years. At present this change in guidance is not reflected in the [Green Book](#) as a result of the COVID-19 pandemic.

Hepatitis B Vaccination/HBIG should therefore be administered as follows:

- Hepatitis B IG (HBIG)
 - Dose - 250iu IM divided into 2 doses 2.5cm apart, anterolateral thigh.
 - HBIG is now supplied in 500 iu preparation. However HBIG was previously available in 200 iu vials, whilst current stock of this preparation exists it is acceptable to give a dose of 200 iu to infants requiring HBIG.

- Hepatitis B vaccine (Engerix B) - 10 micrograms (0.5ml) IM. in opposite leg, anterolateral thigh

Please see the [Green Book](#) for further details of administration, dosage and adverse reactions.

You must prescribe the HBIG and vaccine in the drug chart and check the medication with a nurse/doctor prior to administrating.

Vaccination schedule and follow-up

For post-exposure prophylaxis in babies born to mothers infected with hepatitis B, the accelerated immunisation schedule is preferred. This will mean an initial dose of vaccine at birth, with further doses at one and two months of age and a fourth dose at one year of age (Table 2). This should be managed by the child’s general practitioner.

Testing for HBsAg at one year of age will identify any babies for whom this intervention has not been successful and who have become chronically infected with hepatitis B, and will allow them to be referred for assessment and any further management. This testing can be carried out at the same time as the fourth dose is given (Table 2).

Table 2: Hepatitis B vaccination schedule and follow up:

	1 st dose	2 nd dose	3 rd dose	4 th dose	Blood test (HBsAg and Ab levels)	Booster dose
Age of baby	At birth	One month (GP)	2 months (GP)	12 months (GP)	12 months (GP to arrange)	Pre-school at 5 years

Subsequent arrangements

1. Having administered the vaccine +/- HBIG, complete the notification form at the end of these guidelines and ensure a copy is emailed to: chs.childhealthsurreywest@nhs.net
2. Complete the Hepatitis B immunisation insert for the red book and record that the first dose of vaccine has been given (including manufacturer and batch number).

3. Ask the Joan Booker ward clerk scan a copy of the notification letter onto Evolve for baby and ask them to send a copy to the GP.
4. Complete the vaccinations section on Maternity Badgernet:

Select Baby Summary of Care → Click on the day of administration → Click on Tab Add new note on right hand side → Select Vaccination from drop down menu and complete
5. Give the parents a copy of the Parent Information Leaflet

Hepatitis B Immunisation Notification Form

Forename:	Surname:	DOB:
NHS Number:		
Address:		
Postcode:		
GP name and practice address:		
Mother's details		
Forename:	Surname:	
DOB:	NHS Number:	

This baby received the first of five hepatitis B vaccinations because he/she was considered to be at increased risk of acquiring the disease. Parental consent has been obtained.

Reason why child was vaccinated for Hepatitis B	Please complete ONE box
Mother Hepatitis B positive	
Other parent or carer Hepatitis B positive	
Other life style factors	Details:

The details of the 1st dose are as follows:

Date.....Time.....
Dose.....
Product.....
Batch No.....
Immunoglobulin given: YES/NO <i>Delete as appropriate</i>

Send copy to
<input type="checkbox"/> GP
<input type="checkbox"/> Child Health Information Service: chs.childhealthsurreywest@nhs.net