Hepatitis B Virus – Post Exposure Prophylaxis – Outpatients attending ED – Full Clinical Guideline

For newborn babies of mothers with hepatitis B – see separate paediatric guideline

Low risk incident – Exposure on intact skin

Action

If there is no further risk of inoculation – no HBV prophylaxis needed, reassure patient.

If there is continued risk of further exposure (for example – health care worker, care home worker, police service personnel, works with drug addicts etc.) initiate course of hepatitis B vaccine, (no need for HB immunoglobulin). Those who have received part of a course of hepatitis B vaccine should complete it as originally planned.

Higher risk incident - Exposures where post exposure prophylaxis (PEP) to be considered.

- Break in the skin by a sharp that is contaminated with blood, visibly bloody fluid, or other potentially infectious material, or that has been in the source patient's blood vessel.
- Bite from a patient with visible bleeding in the mouth that causes bleeding in the exposed worker.
- Splash of blood, visibly bloody fluid, or other potentially infectious material to a mucosal surface (mouth, nose, or eyes).
- A non-intact skin (e.g., dermatitis, chapped skin, abrasion, or open wound) exposure to blood, visibly bloody fluid, or other potentially infectious material.
- Sexual exposure

HBV prophylaxis should be determined by assessment of the likely infectivity of the source and of the HBV status of the person exposed (see table on next page)

High Risk Source

a) Source is known to be blood borne virus positive
b) Source is in a risk category for being blood borne virus positive
c) Source unknown but the sharp involved probably used in one of the categories above
d) Clinical suspicion is of a high risk source

High Risk Body Fluids

These include blood, blood stained or dentistry associated saliva, amniotic fluid, breast milk, cerebrospinal fluid, pericardial fluid, peritoneal fluid, pleural fluid, semen, synovial fluid, vaginal secretions, unfixed human tissue or organs, exudate or other tissue fluid from burns or skin lesions, or any other visibly blood stained body fluids. Exposure to blood is more serious than exposure to other body fluids.

Low Risk Body Fluids

These include urine, vomit, saliva (except in association with dentistry or poor dentition e.g.

with bleeding gums), faeces, tears, sweat and sputum (except when these body fluids are blood stained).

Prophylaxis in higher risk incidents (for further advice contact the on-call virologist)

HBV status of person exposed	Significant exposure		
	HbsAg positive source	**Source unknown**	**HBsAg negative source**
Unvaccinated	Accelerated course of HBV AND HBIG with first dose	Accelerated course of HBV	Consider course of HBV
Partially vaccinated	One dose HBV and finish course	One dose of HBV and finish course	Finish course of HBV
Fully vaccinated with primary course	Booster dose of HB vaccine if last dose > 1 year ago	Consider booster dose of HB vaccine if last dose > 1 year ago	No HBV prophylaxis
Known non-responder to HBV (anti HBs <10 IU/ml 1-2 months post immunisation	1 dose HBIG Booster dose of HB vaccine Second dose of HBIG one month later	1 dose HBIG Consider booster dose of HB vaccine Second dose of HBIG one month later (unless the source is later found to be HBsAg negative)	No HBIG Consider booster dose of HB vaccine

HBV = Hepatitis B Vaccine (not to be delayed whilst awaiting HBIG or test results)
HBIG = Hepatitis B immunoglobulin

Accelerated course of vaccine consists of doses spaced at zero, one and two months.
A booster dose may be given at 12 months to those at continuing risk of exposure to HBV.

Hepatitis B immunoglobulin (HBIG)
The use of HBIG is regulated by UK Health Security Agency. HBIG should be given as soon as possible, preferably within **24 hours,** ideally within 48 hours, and no later than a week after exposure.

Dosage and Administration of HBIG
The responsible physician is to prescribe HBIG on the CAS card/EPMA system if HBIG is indicated as per risk assessment completed by UKHSA.

HBIG should be given by intramuscular injection into the upper outer quadrant of the buttock or anterolateral thigh. HBIG will not inhibit the antibody response when given at the same time as Hepatitis B vaccine but they should be given in different sites.
Dosage:
• 0-4 years, 250 units
• 5-9 years, 300 units
• Adults and children over 10 years, 500 units

For supply:
All requests will be on a 'named patient' basis via the Rabies and Immunoglobulin Service RIgS at Colindale and if indicated will be issued from the centrally held stock at Movianto through ImmForm.

The responsible physician is to contact RIgS **(0330 128 1020)** to ensure that the patient is eligible for HBIG. A risk assessment will be carried out at that point and RIgS will inform the responsible physician on the delivery point depending on urgency.

RIgS operates 7 days per week from 08:00-17:30.
OOH – call the above number to discuss the case with the Colindale out of hours duty doctor service

References

Hepatitis B immunoglobulin (issued September 2022) - GOV.UK (www.gov.uk)

The Green Book on Immunisation - Chapter 18 Hepatitis B (publishing.service.gov.uk)

Rabies and Immunoglobulin Service (RIgS) - GOV.UK (www.gov.uk)

Pharmacists only – for dispensing info see QPulse: Supply of Hepatitis B immunoglobulin

Documentation Control

Development of Guideline	Dr Deborah Gnanarajah – Consultant Microbiologist and infection control Lola Agbeyomi – Specialist Clinical Pharmacist Kayleigh Lehal – Antimicrobial Pharmacist
Consultation With	Dr Cariad Evans – Consultant Virologist Angelina Dyche – Antimicrobial Pharmacist
Version Number	2.3
Changes from previous version	• Amendment to supply details. This is now centrally from RIgS, as UHDB is no longer a stock holder. • Removal of pre-printed prescription
Approval Date	Antimicrobial stewardship group 07/11/2022
Review Date	March 2026
Key Contacts	Dr Cariad Evans – Consultant Virologist Kayleigh Lehal – Antimicrobial Pharmacist