Hepatitis B

Quick reference guide for health and social care professionals

NHS Greater Glasgow and Clyde

WHAT IS HEPATITIS B (HBV)?

- A blood-borne virus affecting the liver resulting in either an acute illness or chronic, persistent infection; both can lead to severe liver damage.
- Spread mainly through parenteral exposure to infected blood or bodily fluids. The main risks include unprotected sexual intercourse, injecting drug use, needlestick injuries and perinatal transmission from mother to child. Also, sharing of toothbrushes and razors in a household setting.
- Symptoms of liver damage can take years or decades to occur.
- Infection can be prevented by active and/or passive immunisation.
- HBV is endemic in South East Asia, Indian sub-continent, middle and far East, Southern Europe and Africa. Prevalence in the UK is low at 0.14-1.0% of the population.
- Around 100 cases are diagnosed in NHS GGC annually, mostly in pregnant women from high-prevalence countries.

VACCINATION

Pre-infection vaccination (HBVaxPro or Twinrix) should be offered to:

- Injecting drug users,
- Those who change sexual partners frequently, including men who have sex with men, and men and women involved in prostitution,
- Household and sexual contacts of cases with active HBV infection,
- Families adopting children from countries with a high prevalence of HBV,
- Foster carers,
- Individuals receiving regular blood or blood products, and their carers,
- Patients with chronic liver or kidney disease,
- Inmates of custodial institutions,
- Individuals in residential accommodation for those with learning difficulties, based on risk assessment,
- People travelling to areas of high or intermediate prevalence,
- Those with occupational risk including healthcare , laboratories, accommodation for those with learning needs, prisons, mortuaries and embalmers.

Post-exposure prophylaxis with specific Hepatitis B immunoglobulin (HBIG) provides passive immunity and can give immediate but temporary protection after exposure. HBIG is given concurrently with HBV vaccine, ideally within 48 hours, but can be considered for <1 week following exposure. HBIG is recommended for:

- Some babies born to mothers who are either; chronically infected with HBV, or have had acute hepatitis B during pregnancy,
- Sexual contacts of people with acute or chronic hepatitis B,
- Persons who are accidentally inoculated or contaminated with blood from a known HBsAg-positive person.

Response to vaccine. Testing for response is generally not recommended, except for; those at risk of occupational exposure, patients with renal failure, and babies born to infected mothers at ≥12 months of age following 3 doses of the vaccine.

DIAGNOSTIC TESTING

Testing should be offered to individuals:

- those who have lived in high-risk countries,
- with unexplained abnormal liver function tests or unexplained jaundice,
- who have ever injected drugs,
- who change sexual partners frequently, including, male and female sex workers,
- men who have sex with men
- babies born to chronically infected mothers at 12 months of age
- household and sexual contacts of cases with active HBV infection (acute or chronic),
- recipients of a blood transfusion in UK before 1991 or blood products before 1986 or organ/tissue transplant before 1982.
- those accidentally exposed to blood through a needlestick injury or violent injury
- those who have received a tattoo, piercing, acupuncture or electrolysis where infection control is poor,
- patients who have received medical or dental treatment in countries where infection control is poor,
- with HIV infection.

TESTING TECHNOLOGIES

It is preferable to submit venous bloods for blood-borne virus testing, where possible, as this facilitates the testing process and is less resource-intensive.

Dried Blood Spot (DBS) testing is appropriate for patients who have damaged peripheral veins, usually as a result of injecting drug use, or a severe needle-phobia. To help reduce barriers to testing, DBS is now available in drug services, prisons, and addiction Shared Care GP practices.

CONSENT FOR TESTING

When consenting patients for testing, it would be useful to cover the following:

- Hepatitis B, its natural history and the benefits offered by knowledge of status, clinical management and treatment.
- What the test involves, the timescale, confidentiality and meaning of results.
- Assessment of risk history and establishing when the last exposure occurred. If exposure was within the previous 6 months, a follow-up test will be required.
- Consider testing for hepatitis C and HIV as indicated.
- Implications of the result for the patient - if positive, how they will handle the diagnosis; if negative, how they can avoid exposure in the future.
- Sources of information and support for the patient.

RESULTS & POST TEST DISCUSSION

All patients should be offered a post-test discussion, whatever the result. Content of the discussion will vary according to results. Patients with potential exposure during the window period should be re-tested 6 months after the last exposure. Consider annual testing of patients with ongoing risk factors.

The HBV testing panel will return a range of results that indicate exposure ± infectivity ± recovery. The Specialist Virology Centre (SVC) will interpret results and provide appropriate information when reporting results. For further advice contact the SVC on 0141 211 0080.

All HBV surface antigen (HBsAg) positive samples indicate active infection and require referral to specialist care.

CONTACT TRACING & VACCINATION

A Sandyford Sexual Health Adviser will contact the testing clinician and the patient's GP (if tested outwith Primary Care) to offer support with, referral of patients with active infection, contact-tracing and partner notification, and vaccination of contacts.

SPECIALIST CARE CENTRES

All HBV surface antigen (HBsAg) positive patients should be referred to specialist care. Adults can be referred to any of the centres below except:

- those co-infected with HIV who should be referred to the **Brownlee Centre** (0141 211 1089).
- Children should be referred to the Department of Infectious Diseases at **Yorkhill Hospital** (0141 201 0323).

Gartnavel Hepatitis Centre
Department of Gastroenterology
Tel: 0141 211 3286

Department of Infectious Diseases
(Brownlee Centre)
Tel: 0141 211 1089

Glasgow Royal Infirmary
Department of Gastroenterology
Tel: 0141 211 4911

Southern General Hospital
Department of Gastroenterology
Tel: 0141 201 2177

Inverclyde Royal Hospital
Department of Gastroenterology
Tel: 01475 633777

Royal Alexandria Hospital
Department of Gastroenterology
Tel: 0141 314 6850

Vale of Leven
Department of Gastroenterology
Tel: 01389 817239

Victoria Infirmary
Department of Gastroenterology
Tel: 0141 347 8320

TREATMENT

Treatment is indicated for patients with chronic, progressive disease. The goal is to prevent disease progression and subsequent liver damage that could result in cirrhosis, hepatocellular carcinoma, and death. HBV treatment is restricted in the NHS GGC Formulary to specialist recommendation. Treatment may be started by the hospital or GP, who will be asked to provide ongoing prescribing. Treatment patients will continue to attend specialist care for all ongoing monitoring.

Women diagnosed with HBV during pregnancy will be referred to a specialist clinic by the Obstetrician for review. Some may require treatment during pregnancy to reduce the risk of transmission to the child.

PATIENT INFORMATION AND SUPPORT

A series of brief, printable resources for patients at all stages of the **testing pathway** are available from the MCN. There are resources for those considering testing, waiting for results, those with a negative result, and those diagnosed with current infection. See the 'Testing' pages on the MCN website for more info.

Hepatitis Scotland: *www.hepatitisscotland.org.uk*

Hepatitis B Foundation UK: *www.hepb.org.uk*