Support for commissioning for hepatitis B

Overview and resources

This resource helps with quality improvement by providing information on key clinical, cost and service-related issues to consider during the commissioning process and signposting other implementation tools. It has been produced to support NICE quality standard 65 for hepatitis B.

We welcome your feedback on using this resource. See the feedback section for details.

More information about NICE support for commissioning

Use the NICE pathways on hepatitis B (chronic), hepatitis B and C testing and immunisation for children and young people for fast access to NICE guidance and implementation resources to support commissioning for this condition.

Who is responsible for commissioning for hepatitis B?

NHS England, local authorities (in particular directors of public health) and clinical commissioning groups (CCGs) are responsible for commissioning services for hepatitis B. For more information about who is responsible for commissioning services at a local and national level, see the individual statements.

Local government has responsibility for taking steps to improve the public’s health, supported by Public Health England. NHS England has a specific role for the direct commissioning of primary care, public health and prison health. For more information, see NHS public health functions agreement 2014–15 – Public health functions to be exercised by NHS England.
Who should local authorities and CCGs work with?

NHS England, local authorities (in particular directors of public health) and CCGs should work with local organisations that provide services for people at increased risk of hepatitis B infection, including those in the NHS, local authorities, prisons, immigration removal centres, drugs services and voluntary sector and community organisations.

Local authorities and CCGs should ensure that hepatitis B is included in the health and wellbeing board's joint strategic needs assessment (see the NICE guidance on Hepatitis B and C: ways to promote and offer testing to people at increased risk of infection for a definition of joint strategic needs assessment).

More information about using NICE quality standards to improve practice

The quality statements and their commissioning and resource implications

Quality statement 1: Testing and vaccination for hepatitis B

People who are at increased risk of hepatitis B infection are offered testing and vaccination.

Rationale

Children, young people and adults who are at increased risk of hepatitis B infection should be offered testing in a range of settings (for example, in GP practices including new registrations, prisons or immigration removal centres, drugs services, sexual health and genitourinary medicine clinics) alongside appropriate vaccination. This is essential for ensuring early diagnosis, prompt treatment and prevention of infection.

Commissioner and provider actions

- Commissioning responsibilities for different settings are:
  - NHS England area teams: primary care settings and prison and immigration removal centres
  - Local authorities: drugs services
  - Local Authorities: sexual health and genitourinary medicine clinics.
• Local authority commissioners, NHS England area teams, CCGs and providers of testing and vaccination services should, if possible, estimate the number of people who are at increased risk of hepatitis B infection (see the quality standard on hepatitis B for a definition of people at increased risk) when planning services for hepatitis B testing and vaccination.

• For recommendations on who should take action and what actions they should take when promoting and offering testing to specific high-risk groups, and for information about high-priority settings, commissioners and providers should refer to Hepatitis B and C: ways to promote and offer testing to people at increased risk of infection recommendations 4–7 (NICE public health guidance 43).

• CCGs, NHS England area teams, local authority commissioners and service providers should ensure that testing strategies for hepatitis B are implemented alongside strategies for hepatitis B vaccination in accordance with Public Health England’s Immunisation against infectious disease: the green book, chapter 18: Hepatitis B in the following high-priority settings:
  - GP practices including new registrants
  - prisons and immigration removal centres
  - drug services
  - sexual health and genitourinary medicine clinics.

• All service providers offering testing and vaccination for hepatitis B to people from high risk groups should demonstrate to the appropriate commissioner that local data collection is taking place in line with the quality measures for quality statement 1 in the quality standard for hepatitis B.

• CCGs, NHS England area teams, local authority commissioners and service providers should take into account the social and cultural barriers to testing, vaccination and treatment when planning services and should consider the specific needs of high-risk groups. Commissioners and providers may wish to work with third sector organisations to target particular groups for example migrant populations, and design local service delivery models to be effective in reaching people outside mainstream services. See shared learning for hepatitis B and C for examples of local models of service delivery.
Estimated resource impact per 100,000 population

The financial resource impact depends on progress in implementing recommendations 4–7 from *Hepatitis B and C: ways to promote and offer testing to people at increased risk of infection* (NICE public health guidance 43) by the range of providers. The costs of testing and vaccination outlined in the NICE costing report for this guidance are summarised below:

- Identifying people who are at increased risk of hepatitis B and offering testing and vaccination will have a resource impact but is likely to contribute to a reduction in onward disease transmission and an overall increased awareness of the risks. The commissioners affected are NHS England and CCGs.

- The cost of testing people who are at increased risk of hepatitis B within GP services is estimated to be around £18,200 per 100,000 population per annum. The commissioner affected is NHS England.

- In the general population, it is estimated that there will be 225 new entrants to prison and 53 new entrants to immigration removal centres per 100,000 population, of whom 90% will be tested at a cost of £35,000 (NICE costing template for Hepatitis B and C: ways to promote and offer testing). The commissioner affected is NHS England.

- Based on the assumptions in the costing report, the cost of vaccinating against hepatitis B in primary care and for people in prisons and immigration centres is estimated to be £9000 per 100,000 population per year. The commissioner affected is NHS England.

- Opportunistic testing and vaccination may take place with high-risk groups of people who access genitourinary medicine clinics, which may have an additional cost impact. The commissioners affected are CCGs.

Quality statement 2: Referral for specialist care

People who test positive for hepatitis B surface antigen (HBsAg) are referred to specialist care for further assessment.

Rationale

Chronic hepatitis B infection affects the liver and can cause serious health problems if left untreated. It is important that people who test positive for HBsAg are referred for specialist care so that they can be assessed for the stage of hepatitis B and for other infections (such as HIV, hepatitis C and hepatitis D). Further assessment in specialist care is essential in determining...
whether and when to start pharmacological treatment. This statement does not apply to pregnant women who test HBsAg-positive at antenatal screening, which is the focus of quality statement 3.

**Commissioner and provider actions**

- Commissioning responsibilities for different settings are:
  - NHS area teams: primary care and prison and immigration removal centres (for the referral of people who test positive for HBsAg to specialist care) and the commissioning of specialist care services in secondary care
  - Local Authorities: sexual health and genitourinary medicine clinics (for the referral of people who test positive for HBsAg to specialist care).

- Local authority commissioners, NHS England area teams, CCGs and providers of testing and vaccination services should ensure that people who test positive for HBsAg are referred for specialist care.

- For detailed information about assessment and referral for people who are HBsAg-positive, commissioners and providers should refer to:
  - Hepatitis B (chronic): diagnosis and management of chronic hepatitis B in children, young people and adults (NICE clinical guideline 165) recommendations 1.2.2 and 1.2.7
  - Hepatitis B and C: ways to promote and offer testing to people at increased risk of infection (NICE public health guidance 43) recommendations 4–7.

- CCGs and NHS England area teams should specify that testing and vaccination services have clear referral arrangements in place for people who test positive for HBsAg to be referred to specialist care for further assessment, to check the stage of infection, whether there are other infections and to assess whether treatment is needed.

- CCGs should ensure specialist services are available in geographical areas where there are likely to be high numbers of people who test positive for HBsAg.

- Hospital-based specialist care services should ensure that hepatologists (paediatric hepatologists where appropriate), gastroenterologists or infectious disease specialists with an interest in hepatology are available to provide further specialist assessment.

- The NICE Hepatitis B: audit support tool, audit standards 2 and 3 can be used to measure and demonstrate current practice for referrals made to specialist care.
Estimated resource impact per 100,000 population

The financial resource impact depends on the progress that organisations have made implementing recommendations from *Hepatitis B (chronic): diagnosis and management of chronic hepatitis B in children, young people and adults* (NICE clinical guideline 165).

- The number of people identified as HBsAg-positive as a result of increased testing is estimated to be 14 per 100,000 population per annum, 3 of whom are likely to be people in prison or immigration removal centres (*NICE costing template for Hepatitis B and C: ways to promote and offer testing*).

- The unit cost of a first outpatient appointment with a hepatologist specialist or a gastroenterologist is £178 (*National tariff 2014/15*, treatment function code 306 hepatology, 251 paediatric gastroenterology, 253 paediatric hepatology, 301 adult gastroenterology). The cost of additional referrals to specialists for further assessment is therefore estimated to be around £2500 per 100,000 population per annum.

- The health state costs (including antiviral treatment delivery, monitoring costs and excluding drug costs) associated with the management of decompensated liver disease if hepatitis B is left untreated are estimated to be around £12,000 per person per year.\(^1\) Long-term savings are therefore possible from a reduction in the severity of adverse events associated with untreated disease and the associated end-of-life care costs.

- Testing people for other infections (such as HIV, hepatitis C and hepatitis D) during the specialist assessment should also lead to more efficient use of resources.

**Quality statement 3: Referral to and assessment by specialist care for pregnant women who are identified as hepatitis B surface antigen-positive at antenatal screening**

Pregnant women who are identified as hepatitis B surface antigen (HBsAg)-positive at antenatal screening are assessed by a specialist within 6 weeks of receiving the screening test result.

**Rationale**

Specialist assessment within 6 weeks of receiving the screening test is important to allow antiviral treatment (tenofovir) in the third trimester if needed to reduce the risk of the baby becoming infected with hepatitis B.
Commissioner and provider actions

- Commissioning responsibilities for different settings are:
  - NHS England area teams (screening and immunisation teams): NHS Infectious Diseases in Pregnancy screening programme
  - CCGs: antenatal care services and the commissioning of specialist care services in secondary care.

- NHS England area screening and immunisation teams, CCGs and antenatal care providers should ensure that clear referral pathways are in place to specialist care services and that specialist care assessments are carried out within 6 weeks (see the quality standard on hepatitis B for a definition of specialist care assessments).

- Services should be responsive to the needs of pregnant women with complex social needs (see the quality standard on hepatitis B for more information on women with complex social needs) and have systems in place to actively encourage access to services and to provide follow-up.

- For detailed information about referral and assessment by specialist care for pregnant women, commissioners and providers should refer to:
  - [Hepatitis B (chronic): diagnosis and management of chronic hepatitis B in children, young people and adults (NICE clinical guideline 165) recommendation 1.2.4](#)
  - [Public health functions to be exercised by NHS England service specification 15: NHS infectious diseases in pregnancy screening programme](#)
  - [Hepatitis B antenatal screening and newborn immunisation programme. Best practice guidance](#) (Department of Health 2011).

- Antenatal care service providers should ensure that healthcare professionals refer all pregnant women who are identified as being HBsAg-positive at antenatal screening to specialist care.

- Hospital-based specialist care service providers should demonstrate that pregnant women who are referred for specialist care assessment are assessed by a specialist within 6 weeks of receiving the screening test result.

- The [UK National Screening Committee Key performance indicators](#) – KPI ID2 (Antenatal infectious disease screening) can be used to collect data on timely referral of hepatitis B-positive women for specialist assessment).
Estimated resource impact – annual treatment cost

- The unit cost of an attendance for assessment during treatment is £178 for a first attendance with a hepatologist and £101 for a follow-up attendance (See National Tariff 2014/15 Outpatient attendances (treat function codes WF01 A; WF01B)).

- The annual cost of treating a pregnant woman with tenofovir is £3103. There are no associated administration costs (NICE costing statement for Tenofovir disoproxil for the treatment of chronic hepatitis B, NICE technology appraisal guidance 173).

- Treating pregnant women with tenofovir may avoid the significant long-term costs associated with care and treatment of babies infected with the hepatitis B virus. Treatment and management costs per child per year could be between £2000 and £4000, depending on the severity of the infection (Foundation for Liver Research 2004 Hepatitis B: out of the shadows).

Quality statement 4: Complete course of neonatal hepatitis B vaccination and blood testing at 12 months

Babies born to hepatitis B surface antigen (HBsAg)-positive mothers receive a complete course of hepatitis B vaccination and, at age 12 months, receive a blood test for hepatitis B infection.

Rationale

Hepatitis B infection can be transmitted from mothers with hepatitis B to their babies. Babies who acquire the infection have a very high risk of developing chronic hepatitis B. Vaccination of babies is highly effective in preventing transmission. It is important that the babies of mothers with hepatitis B (whether they are delivered in hospital or at home) are given the first vaccine dose promptly and that the recommended vaccination course is completed at the right time, including, when appropriate, hepatitis B immunoglobulin, in line with Public Health England’s Immunisation against infectious disease: the green book, chapter 18: Hepatitis B.

If vaccinations are delayed or missed, it is more likely that the child will become infected.

Commissioner and provider actions

- Commissioning responsibilities for different settings are:
- NHS England area teams (screening and immunisation teams): Neonatal hepatitis B immunisation programme and hepatitis B vaccination coverage (children aged 1 and 2 years)

- CCGs: maternity care services in secondary care.

- NHS England area screening and immunisation teams, CCGs and maternity, paediatric, primary care and community support team providers should ensure that arrangements are in place for an effective **neonatal hepatitis B immunisation programme** (NHS England 2013) that includes:
  
  - a complete course of hepatitis B vaccination and a blood test for hepatitis B including hepatitis B immunoglobulin where indicated, for babies born to HBsAg-positive mothers (see the quality standard on hepatitis B for more information on a **complete course of hepatitis B vaccination and blood test**).
  
  - an identified person responsible for coordinating the local hepatitis B vaccination programme including scheduling vaccinations and follow-up to ensure that babies at risk are vaccinated at the right time.

- For recommendations on effective delivery and auditing of neonatal vaccination programmes and further detailed information, commissioners and providers should refer to:
  
  - Hepatitis B and C: ways to promote and offer testing to people at increased risk of infection (NICE public health guidance 43) recommendation 9
  
  - Reducing differences in the uptake of immunisations (NICE public health guidance 21) recommendation 6
  
  - Neonatal hepatitis B immunisation programme (service specification 1) (NHS England 2013)
  

- Service providers should ensure that the transfer of care between maternity services and primary care is coordinated and that information is shared effectively so that children and families who are affected can be contacted and followed up. Services should be responsive to the needs of families with complex social needs (see the quality standard on hepatitis B for more information on **women with complex social needs**) and have systems in place to actively encourage access to services and to provide follow-up.
NICE Reducing the differences in the uptake of immunisations: audit support, criterion 3 can be used to assist with data collection for this statement.

Estimated resource impact

- NHS England will cover the resource requirements for this statement in line with Immunisation against infectious disease: the green book, chapter 18: Hepatitis B. Public Health England monitor and report on the vaccination coverage data and have the public health expertise for analysing the impact of this programme through ongoing surveillance.

- There may be a cost impact associated with having an identified person (within CCGs, NHS England screening and immunisation teams or other organisations) to ensure effective coordination of services and with responsibility for ensuring babies are vaccinated in line with the neonatal hepatitis B immunisation programme (service specification 1) (NHS England 2013). This needs to be assessed locally.

Quality statement 5: Personalised care plan

People with chronic hepatitis B infection, and their family members or carers (if appropriate), are offered a personalised care plan outlining the proposed treatment and long-term management of their infection.

Rationale

Personalised care plans are important to promote regular discussion and involvement in decision-making about proposed treatment and long-term management between the healthcare professional and the person with chronic hepatitis B infection (and their family members or carers if appropriate).

It is important that people are actively involved in decisions about their care, and that they fully understand their treatment plan. People with hepatitis B should be encouraged to follow their care plan and take an active role in ensuring that any necessary monitoring, treatment and/or screening tests happen in a timely way. Engaging patients in their care planning and management helps to ensure that they adhere to long-term treatment, and minimises non-attendance, inadequate monitoring and poor patient outcomes.

Commissioner and provider actions

- CCGs are responsible for commissioning specialist care services in secondary care.
- CCGs and hospital-based specialist care providers should ensure that specialist services are in place and that healthcare professionals give people with chronic hepatitis B infection (hepatitis B that persists for 6 months or more after acute infection) a personalised care plan that outlines the proposed treatment and long-term management of their infection.

- For detailed information about recommended patient information, commissioners and providers should refer to Hepatitis B (chronic): diagnosis and management of chronic hepatitis B in children, young people and adults (NICE clinical guideline 165) recommendations 1.1.1 and 1.1.2.

- Hospital-based specialist care providers can demonstrate to commissioners through local audit that people feel informed about their proposed treatment and long-term management plan of their infection.

**Estimated resource impact**

- Providing personalised care plans is not expected to lead to a significant resource impact because the infrastructure for providing them is already in place.

**Quality statement 6: Monitoring people with chronic hepatitis B infection who do not meet the criteria for antiviral treatment**

People with chronic hepatitis B infection who do not meet the criteria for antiviral treatment are monitored regularly at intervals determined by their infection status and age.

**Rationale**

Monitoring starts shortly after a person is diagnosed with chronic hepatitis B infection. For people who do not need antiviral treatment, continuous follow-up is needed to determine the stage of infection, whether treatment needs to be started and if they are at risk of developing fibrosis.

**Commissioner and provider actions**

- CCGs are responsible for commissioning specialist care services in secondary care.

- CCGs and hospital-based specialist care providers should ensure that systems and facilities are in place for monitoring and follow-up of people with chronic hepatitis B who do not meet the criteria for antiviral treatment.
For detailed information on the recommended intervals for monitoring, commissioners and providers should also refer to Hepatitis B (chronic): diagnosis and management of chronic hepatitis B in children, young people and adults (NICE clinical guideline 165) recommendations 1.6.1 to 1.6.8.

Hospital-based specialist care providers should ensure that competent healthcare professionals are in place to meet the commissioned levels of activity through outpatient clinics.

**Estimated resource impact – unit cost per appointment**

- The 2014/15 national tariff unit cost for a follow-up appointment at a hepatology clinic is £101 (treatment function code 306).

- There is wide variation in practice relating to monitoring for people who do not meet the criteria for antiviral treatment which may reflect differences in the patient population for different localities. There is currently no audit of hepatitis B practice, therefore patient numbers are difficult to predict.

**Quality statement 7: Six-monthly surveillance testing for hepatocellular carcinoma in adults with chronic hepatitis B infection who have significant liver fibrosis or cirrhosis**

Adults with chronic hepatitis B infection who have significant liver fibrosis or cirrhosis are offered 6-monthly surveillance testing for hepatocellular carcinoma.

**Rationale**

Significant liver fibrosis or cirrhosis is a substantial risk factor for hepatocellular carcinoma and people with chronic hepatitis B infection who develop liver damage are at increased risk. This form of cancer develops quickly and may be asymptomatic until it is advanced. Regular surveillance testing at 6-month intervals helps to ensure that hepatocellular carcinoma is detected early, which can lead to earlier treatment and may improve the person’s chances of survival. See the quality standard on hepatitis B for more information on significant liver fibrosis or cirrhosis, hepatocellular carcinoma and chronic hepatitis B infection.

**Commissioner and provider actions**

- CCGs are responsible for commissioning specialist care services in secondary care.
CCGs should ensure that hospital-based specialist care providers have systems and facilities in place to provide 6-monthly surveillance testing for hepatocellular carcinoma for adults with chronic hepatitis B and significant liver fibrosis or cirrhosis. For more information on surveillance testing see Hepatitis B (chronic): diagnosis and management of chronic hepatitis B in children, young people and adults (NICE clinical guideline 165) section 1.7.

Hospital-based specialist care providers should ensure that competent healthcare professionals are in place to meet the commissioned levels of activity through outpatient clinics and may demonstrate outcomes to commissioners by monitoring the stage of hepatocellular carcinoma at diagnosis for adults with chronic hepatitis B infection.

Estimated resource impact

- Without diagnosis and treatment, the 5-year cumulative incidence of cirrhosis ranges from 8% to 20%. People with cirrhosis face a significant risk of decompensated liver disease.

- Undertaking 6-monthly surveillance testing for hepatocellular carcinoma is not expected to lead to a significant resource impact because numbers are likely to be small and the cost of surveillance is low. The unit cost of an ultrasound scan taking 20 minutes or longer is £56 (National tariff 2014/15 code RA24Z). The potential resource impact should be reviewed at a local level. The cost of a blood test is estimated to be £3.

- Six-monthly surveillance testing for hepatocellular carcinoma may lead to earlier detection of cancer and treatment, which may result in improved overall survival rates.


Other useful resources

Service specification 29 Public health services for people in prison or other places of detention, including those held in the children and young people's secure estate (Public health functions to be exercised by NHS England).

Feedback

We welcome your feedback on using this resource, particularly if you have used it to support the commissioning process.
Please let us know how you have used it and how it was helpful by completing this short questionnaire.

Changes after publication

**January 2015:** A small alteration has been made to the commissioner and provider actions section of quality statement 2. This change clarifies the commissioning of specialist care services in secondary care within NHS area teams.

**December 2014:** Minor maintenance.

**October 2014:** Minor maintenance.

Disclaimer

This resource provides support for the local use of NICE quality standards. It does not constitute formal NICE guidance. Each resource should therefore be used in conjunction with the relevant NICE quality standard and current national guidance on commissioning.

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