National Institute for Health and Care Excellence

Centre for Guidelines

Surveillance programme

Surveillance review consultation document

No update proposal for PH43: Hepatitis B and C testing: people at risk of infection

Background information

Guideline issue date: December 2012

This guideline covers raising awareness of and testing for hepatitis B and C infection. It aims to ensure that people at increased risk of hepatitis B and C infection are tested.

Surveillance proposal for consultation

- We will not update the guideline at this time.

Reason for proposal

A literature search was completed using the original search strategies from the previous evidence review with the addition of a UK filter. This search did not yield any studies that were considered to impact on the guideline recommendations, see Appendix 1.

We considered the views of topic experts, including those who were involved in the development of the guideline and other correspondence we had received since the publication of the guideline. 7 topic experts responded with 4 stating that the guideline should be updated, 1 indicating no need to update and 2 not stating a preference. The topic experts who thought the guideline should be updated cited studies which referenced hepatitis C treatment (this is outside of the scope for PH43), and an ongoing study looking at the adoption of 'opt-out' hepatitis B and C testing in English prisons.

We also checked for ongoing and newly published research from NIHR, Cochrane and new policy developments. No new evidence was identified which would invalidate the guideline recommendations.

Overall decision

After considering the guideline content, the views of internal teams within NICE and external experts, the Surveillance team recommend that Hepatitis B and C testing: people at risk of infection (PH43) does not require an update at this time.

For details of the process and update decisions that are available, see ensuring that published guidelines are current and accurate in 'Developing NICE guidelines: the manual'

Appendix 1: Decision Matrix

Summary of new evidence from 4-year surveillance	Summary of new intelligence from 4-year surveillance (from topic experts or initial internal intelligence gathering)	Impact
PH43 – 01. **Recommendation 1 – Awareness-raising about hepatitis B and C among the general population** **Evidence statements: Q1, Q2, Q3, Q4, Q5, Q8, Q9, Q10, E1; IDE**		
No evidence identified	No evidence identified	None
PH43 – 02. **Recommendation 2 – Awareness raising for people at risk of hepatitis B or C infection** **Evidence statements: Q1, Q2, Q3, Q4, Q5, Q8, Q9, Q10, Q14, Q15, Q16, Q23, Q28, Q29, E1; IDE**		
A study[7] assessed the effectiveness of outreach testing for hepatitis C virus (HVC) in an immigrant Pakistani population. HCV awareness meetings were undertaken in mosques and the Pakistani Women's centre followed by short-term outreach HCV testing in the same locations. Venous blood was taken and tested for HCV. 177 people were tested out of approximately 250 who attended with 2.9% testing positive. It was determined that immigrant Pakistanis retain a higher prevalence of HCV compared to the population of their adopted country and that outreach targeted testing can be achieved using religious and cultural gatherings, with only modest investment in staff time.	No evidence identified	**New evidence was identified that does not have an impact on the recommendation.** The findings of the study are in line with recommendation 2 which states that 'Local organisations should run awareness-raising sessions to promote hepatitis B and C testing in venues and at events popular among groups at increased risk and 'should consider offering testing for hepatitis B and C at awareness-raising sessions.
PH43 – 03. **Recommendation 3 – Developing the knowledge and skills of healthcare professionals and others providing services for people at increased risk of hepatitis B or C infection** **Evidence statements: Q2, Q18, Q20, Q21, Q28, Q29, Q30, E2, E5, E8; IDE**		
No evidence identified	No evidence identified	None

Summary of new evidence from 4-year surveillance	Summary of new intelligence from 4-year surveillance (from topic experts or initial internal intelligence gathering)	Impact
PH43 – 04. Recommendation 4 – Testing for hepatitis B and C in primary care Evidence statements: Q28, E5, E6, E11		
A systematic review[2] determined the effect of introducing point-of-care (PoC) or dried blood spot (DBS) analysis on the uptake of hepatitis C virus (HCV) testing in high risk populations. The frequency of testing and/or new diagnosis following the introduction of PoC and/or DBS testing of high risk populations was searched. No studies on PoC testing determining frequency of testing were found. Six studies were reviewed on DBS with the injection of drugs being the most common risk factor for HCV infection. Evidence indicated that the introduction of DBS testing increased uptake of testing, new diagnosis or both. It was concluded that DBS testing availability may increase the uptake for HCV testing in high-risk populations but that there was no evidence regarding the efficacy of PoC testing in these populations. A cross-sectional study[4] analysed the reasons for low hepatitis B virus (HBV) testing among migrants for whom testing was recommended under national guidance in a UK city. NHS and HBV laboratory surveillance data was analysed determining that in total 12% of migrants were tested. It was found that the majority of GPs did not use guidance to inform HBV testing in migrants stating that workload and a lack of human, and financial resources were the most significant barriers to increased testing. The study concluded that the majority of migrants from medium	No other evidence identified	**New evidence was identified that does not have an impact on the recommendation.** The findings were in line with current recommendation 4 which states ‘GPs and practice nurses should offer testing for hepatitis B and C to adults and children at increased risk of infection, particularly migrants from medium- or high-prevalence countries and people who inject or have injected drugs and GPs and practice nurses should offer testing for hepatitis B and C to people who are newly registered with the practice and belong to a group at increased risk of infection’. For people who inject drugs the finding also supports recommendation 6 ‘ services should have access to dried blood spot testing for hepatitis B and C for people for whom venous access is difficult’.

Summary of new evidence from 4-year surveillance	Summary of new intelligence from 4-year surveillance (from topic experts or initial internal intelligence gathering)	Impact
to high risk prevalence regions have no evidence of HBV testing and that increased GP awareness and support for primary care was needed to increase testing. A systematic review[9] analysed the effectiveness of interventions to increase hepatitis C testing uptake among high-risk groups. 8 studies were reviewed and a narrative synthesis undertaken. 3 studies looked at primary care, 1 dried blood spot testing, 2 at outreach provisions and 2 at interventions to improve hepatitis C management. Evidence suggests that increases in testing uptake can be achieved but the resource implications associated with their implementation needs to be examined.		
PH43 – 05. Recommendation 5 – Testing for Hepatitis B and C in prisons and immigration removal centres Evidence statements: Q16, Q27, Q28, E1, E6; IDE		
None identified	**New evidence was identified that does not have an impact on the recommendation.** A study by Public Health England[12] evaluated a pathfinder programme to introduce opt-out testing for hepatitis B and C in English prisons. It was found that the number of individuals testing positive for hepatitis B was low but that there was an increase in those testing positive for hepatitis C. They concluded that some of these may not have been identified without the switch from risk based 'opt-in' to universal 'opt-out' testing although the precise number remains unclear due to data collection and reporting problems.	**New evidence was identified that does not have an impact on the recommendations.** This is an ongoing trial of opt-out policy and does not affect recommendation 5 which currently states that 'all prisoners and immigration detainees are offered access to confidential testing for hepatitis B and C when entering prison or an immigration removal centre and during their detention'. Phase 2 of this work is due to be published in late 2017. Once this takes place surveillance will be

Summary of new evidence from 4-year surveillance	Summary of new intelligence from 4-year surveillance (from topic experts or initial internal intelligence gathering)	Impact
		undertaken to establish if the findings directly impact this recommendation.
PH43 – 06. Recommendation 6 – Testing for Hepatitis B and C in drugs services Evidence statements: Q18, Q20, Q21, Q24, Q25, Q28, Q29, Q30, E1, E4, E5, E6, E7, E8, E9; IDE		
A study[1] assessed the use of dried blood spot (DBS) testing on hepatitis C testing in drug users. People who inject drugs attending needle exchange scheme community services and in those in prison were offered the DBS including the self-administered DBS. High rates of hepatitis C virus (HCV) infection were found in all settings with an increase in testing uptake on the second testing occasion. DBS testing for HCV was found to be an effective alternative to conventional blood testing methods with increased uptake in both health care settings. A systematic review[8] thematically assessed the views and experiences of hepatitis C virus (HCV) testing and diagnosis among people who inject drugs. Of the 28 studies reviewed 3 major themes developed, 1. Missed opportunities for provision of information leading to delays in seeking testing, 2. Shifting priorities between HCV testing and other needs and 3. Testing as unexpected and routine with an unawareness of HCV testing being common and part of a routine health assessment. The study concluded that there are modifiable factors that affect the uptake of HCV testing and that any intervention development for this population should focus on these 3 areas.	No other evidence identified	**New evidence was identified that does not have an impact on the recommendation.** The findings of the studies are in line with many parts of Recommendation 6 – Drugs services should have access to: dried blood spot testing for hepatitis B and C for people for whom venous access is difficult, offer and promote hepatitis B and C testing to all service users and ensure people diagnosed with hepatitis B and C are referred for specialist care.

Summary of new evidence from 4-year surveillance	Summary of new intelligence from 4-year surveillance (from topic experts or initial internal intelligence gathering)	Impact
A retrospective study[10] assessed the uptake of hepatitis C services and treatment following diagnosis by dried blood spot (DBS) testing in people who inject drugs. DBS testing records were linked to the Scottish hepatitis C virus (HCV) clinical database before regression analysis was undertaken. 1322 people were tested with 476 testing positive for HCV. 32% of the people who tested positive attended a specialist clinic. The study showed that DBS testing in non-clinical settings has the potential to increase diagnosis and, with sufficient support, treatment of HCV among people who inject drugs. A study[11] assessed the effect on Hepatitis C testing and diagnosis following the launch of Scotland's Action Plan on Hepatitis C and the introduction of dried blood spot (DBS) testing. Increases were observed in both the number of tests being undertaken, positive tests reported and new diagnoses when compared to pre-Action plan. Drug services (RR=3.5, $p<0.001$), Prisons (RR=1.2, $p<0.001$), no change in general practice was noted. Following introduction of DBS testing, there was a 3 fold increase in testing (RR=3.5, $p<0.001$) and 12 fold increase in positives (RR=12.1, $p<0.001$) in drug services. It was determined that the introduction of DBS testing in community drug services made an appreciable contribution in efforts to diagnose the HCV-infected population in Scotland. A cohort study[13] assessed the impact of dried blood spot (DBS) hepatitis C testing of people who inject		

Summary of new evidence from 4-year surveillance	Summary of new intelligence from 4-year surveillance (from topic experts or initial internal intelligence gathering)	Impact
drugs. 1123 DBS tests were carried out with 946 people receiving one test. Of those, 31% tested positive. Overall retention within the services or those treated who tested positive was 64%. It was found that DBS testing in people who inject drugs is a complementary technique to conventional venepuncture for the diagnosis of hepatitis C.		
PH43 – 07. Recommendation 7 – Testing for Hepatitis B and C in sexual health and genitourinary medicine clinics Evidence statements: IDE		
A survey[5] of men who have sex with men (MSM) attending 4 genitourinary clinics in Manchester (n=2030) was identified. Hepatitis C virus (HCV) positivity was found to be significantly associated with HIV status (p<0.001). HCV was also associated with HIV-negative MSM who engaged in high-risk sexual practices. The study concluded that all MSM attending sexual health clinics must have a risk assessment and should be offered HCV screening based on the risk.	No other evidence identified	**New evidence was identified that does not have an impact on the recommendation.** The findings of the study are in line with recommendation 7 'offer and promote hepatitis B and C testing to all service users at increased risk of infection, including people younger than 18'
PH43 – 08. Recommendation 8 – Contact tracing Evidence statements: IDE		
No evidence identified	No other evidence identified	None
PH43 – 09. Recommendation 9 – Effective delivery and auditing of neonatal hepatitis B vaccination Evidence statements: IDE		
No evidence identified	No evidence identified	None
PH43 – 10. Recommendation 10 – Commissioning locally appropriate integrated services for hepatitis B and C testing and treatment Evidence statements: Q7, E5; IDE		
No evidence identified	No evidence identified	None

Summary of new evidence from 4-year surveillance	Summary of new intelligence from 4-year surveillance (from topic experts or initial internal intelligence gathering)	Impact
PH43 – 11. Recommendation 11 – Laboratory services for Hepatitis B and C testing Evidence statements: IDE		
No evidence identified	No evidence identified	None
Research recommendations		
RR – 01 How can case-finding for hepatitis B and C be improved? What modifiable factors influence whether or not specific groups at increased risk of hepatitis B and hepatitis C infection are identified and tested?		
No evidence identified	No other evidence identified	None
RR – 02 How can the uptake of hepatitis C treatment be improved? What factors influence whether or not specific groups at increased risk will begin and complete hepatitis C treatment?		
No evidence identified	No other evidence identified	None
RR – 03 What cost-effective interventions can be used to increase hepatitis B case-finding among migrant populations in primary and secondary care?		
No evidence identified	No other evidence identified	None
RR – 04 What cost-effective interventions ensure continuity of care for prisoners who are diagnosed with chronic hepatitis B or C in prison?		
No evidence identified	No other evidence identified	None
RR – 05 How cost effective are alternative testing sites, such as community pharmacist programmes, for increasing the number of people who are tested and treated for hepatitis B and C?		
No evidence identified	No other evidence identified	None
RR – 06 What are the most effective ways of involving people from groups at increased risk in awareness-raising about, and promoting testing and treatment for, hepatitis B and C infection? Specifically, how cost effective are peer mentor programmes at increasing the number of people at increased risk who are tested and treated for hepatitis B and C?		
No evidence identified	No other evidence identified	None

Summary of new evidence from 4-year surveillance	Summary of new intelligence from 4-year surveillance (from topic experts or initial internal intelligence gathering)	Impact
RR – 07 What impact does increased knowledge and awareness of hepatitis B and C among the general public have on the uptake of testing and treatment?		
No evidence identified	No other evidence identified	None
RR – 08 Which interventions for other communicable diseases could be used to encourage people at increased risk of hepatitis B and C infection to take up the offer of testing and treatment?		
No evidence identified	No other evidence identified	None
RR – 09 How many children in the UK are infected with chronic hepatitis B and C and which subgroups of the population do they come from?		
No evidence identified	No other evidence identified	None
RR – 10 How many people in the UK are infected with chronic hepatitis B and C and which subgroups of the population do they come from?		
No evidence identified	No other evidence identified	None
RR – 11 How cost effective are cohort testing programmes as a stand-alone programme, or as an extension of the NHS Health Check programme?		
No evidence identified	No other evidence identified	None

Summary of new evidence from 4-year surveillance	Summary of new intelligence from 4-year surveillance (from topic experts or initial internal intelligence gathering)	Impact
Gaps in the evidence		
Gap – 01 - There is a lack of robust, quantitative studies on identifying, testing and treating hepatitis B and C (that is, studies that are applicable to the UK context). In particular there is a lack of reliable data on: **a) the number of people in the UK with chronic hepatitis B and C. In particular, there is no national information on the number of children infected.** **b) local information on the number of people with chronic hepatitis B and C.** **c) interventions to increase hepatitis B and C testing among migrant populations.** **d) interventions to increase hepatitis B and C testing in non-health settings, for example, prisons.**		
No evidence identified through the surveillance review.	None identified.	None

Summary of new evidence from 4-year surveillance	Summary of new intelligence from 4-year surveillance (from topic experts or initial internal intelligence gathering)	Impact
Gap – 02 There is a lack of qualitative studies on hepatitis B and C, including studies focused on: **a) cultural issues which may act as a barrier to testing and treatment.** **b) knowledge of, barriers against, and facilitators for hepatitis C testing and treatment among migrant populations.** **c) knowledge of, barriers against, and facilitators for preventing hepatitis B and C among men who have sex with men.** **d) knowledge of, barriers against, and facilitators for improving the prevention of maternal transmission of hepatitis B.** **e) knowledge of, barriers against, and facilitators for preventing hepatitis B among injecting drug users.** **f) how former drug users, both from a service user and provider perspective, regard testing for hepatitis.** **g) the views, perspectives and experiences of hepatitis B and C testing among people whose past behavior has put them at risk but who choose not to disclose this information. This includes people who have previously injected drugs or worked as commercial sex workers.** **h) the views, perspectives and experiences of hepatitis B and C testing among practitioners and people at increased risk of infection, according to the practitioner's level and type of knowledge.** **i) prisoners' views of hepatitis testing and treatment and the views of those working with them.** **j) the acceptability of different sampling methods for testing for hepatitis.** **k) factors which encourage people to have a liver biopsy or discourage them from this.** **l) the knowledge GPs have regarding identification of at-risk patients.** **m) why people referred by GPs for a hepatitis test drop out of appropriate care pathways and whether or not an integrated services/one-stop-shop approach would improve uptake rates.** **n) understanding of hepatitis B and C care pathways.**		

Summary of new evidence from 4-year surveillance	Summary of new intelligence from 4-year surveillance (from topic experts or initial internal intelligence gathering)	Impact
A qualitative study[3] was undertaken to determine the barriers and opportunities for hepatitis B testing and contact tracing in a UK Somali population. The views of 30 people were recorded through semi-structured interviews and focus groups to investigate hepatitis B understanding, testing and contact tracing. A lack of understanding of the disease was cited as the major barrier to testing and contact tracing. The population also co-identified hepatitis B with 'jaundice' and stated that infected people are not stigmatised within the community. The infection is commonly viewed as relatively trivial and short lived. It was determined that any public health initiatives to promote testing and contact tracing in this population should focus on improving hepatitis B understanding and avoid translation of hepatitis B into terms meaning 'jaundice'. Semi-structured interviews[6] (n=10) were undertaken to obtain prison officers' views about hepatitis C testing and treatment. The findings indicated that although hepatitis C testing was supported it was overridden if the prisoner posed a threat to the overall security of the prison. All officers interviewed showed limited knowledge about hepatitis C. It was concluded that, although prison security transcends health, the prison staff have a potential role in promoting or discouraging hepatitis C testing and educational opportunities should be a component of commissioned hepatitis services in prisons.	No other evidence identified.	**New evidence was identified that does not have an impact on the recommendation.** Identified studies looked to answer gaps in the qualitative evidence base. They highlight possible barriers to testing but would not directly change current recommendations

Summary of new evidence from 4-year surveillance	Summary of new intelligence from 4-year surveillance (from topic experts or initial internal intelligence gathering)	Impact
Gap – 03-There is a lack of evidence on the role of the voluntary sector in promoting and offering tests for hepatitis B and C.		
No evidence identified through the surveillance review.	None identified.	None
Gap – 04 There is a lack of evidence on what is happening in the 'real world'. This includes the views of people: **a) at risk of hepatitis B and C.** **b) who have been identified and/or tested and/or treated.** **c) who have dropped out at different stages of the care pathway.**		
No evidence identified through the surveillance review.	None identified.	None
Gap – 05 There is a lack of qualitative and quantitative evidence on the acceptability of dried blood spot testing among different communities.		
No evidence identified through the surveillance review.	None identified.	None
Gap – 06 There is a lack of evidence on how hepatitis B and C status could be assessed when testing for other diseases and blood-borne viruses.		
No evidence identified through the surveillance review.	None identified.	None

Appendix 2: References

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[4]Evlampidou Iro, Hickman Matthew, Irish Charles, Young Nick, Oliver Isabel, Gillett Sophie, and Cochrane Alexandra (2016) Low hepatitis B testing among migrants: a cross-sectional study in a UK city. The British journal of general practice: the journal of the Royal College of General Practitioners 66(647), e382-91

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[11]McLeod Allan, Weir Amanda, Aitken Celia, Gunson Rory, Templeton Kate, Molyneaux Pamela, McIntyre Paul, McDonald Scott, Goldberg David, and Hutchinson Sharon (2014) Rise in testing and diagnosis associated with Scotland's Action Plan on Hepatitis C and introduction of dried blood spot testing. Journal of epidemiology and community health 68(12), 1182-8

[12]Public Health England (2014) Blood-borne Virus Opt-Out Testing in Prisons: Preliminary Evaluation of Pathfinder Programme Phase 1, April to September 2014

[13]Tait J M, Stephens B P, McIntyre P G, Evans M, and Dillon J F (2013) Dry blood spot testing for hepatitis C in people who injected drugs: Reaching the populations other tests cannot reach. Frontline Gastroenterology 4(4), 255-262