UK National Screening Committee

Infectious diseases in pregnancy screening programme triage reviews

28 February 2018

Aim

1. To ask the UK National Screening Committee (UK NSC) to make a recommendation, based on the evidence presented in the triage review documents, as to whether or not further work to assess antenatal screening for HIV, hepatitis B, or syphilis (which make up the Infectious diseases in pregnancy screening programme (IDPS)), is required.

Background

2. The three triage review documents continue the pilot consultation process which began with triage reviews of five conditions of the newborn blood spot screening programme in 2016. The aim of these triage reviews is to establish whether there is published evidence addressing:

    - screening programme cessation
    - the harms of screening for the condition in question
    - the balance of harms and benefits of screening for the condition in question.

3. This process follows from the independent review of the UK National Screening Committee's structure and function (published in 2015) and the Science and Technology Committee's inquiry into of health screening (published in 2014) which recommended that the evidence underpinning current screening programmes should be regularly reviewed.

4. The purpose of the triage process documents is to identify areas of concern ('red flags') which may highlight the need for further work. The documents in themselves would not prompt a UK NSC recommendation for programme cessation.

Triage Reviews

5. All three triage reports (for antenatal screening for HIV, hepatitis B, and syphilis), concluded that there is no evidence which suggests that programme cessation should be explored further.

Consultation

6. A three month consultation was hosted on the UK NSC website. Direct emails were sent to 24 organisations and individuals. **(Annex A).**

7. Seven consultation responses were received in total. Comments relating to the three infectious diseases were received from:

   - British HIV Association
   - British Infection Association
   - Dr Nicky Connor, Public Health England
   - Royal College of Obstetricians and Gynaecologists
   - Royal College of Physicians

   Comments relating only to hepatitis B screening were received from:

   - The Hepatitis B Positive Trust
   - Public Health England National Infection Service

8. All submissions supported the continuation of the IDPS programme -either expressing support for the triage reports' findings that there is no evidence suggesting that programme cessation should be explored further, or supporting the continuation of screening.

9. Two submissions, (British Infection Association and the Royal College of Physicians) suggested that screening for hepatitis C should be included in the IDPS screening programme in future. A review of this topic has been initiated as part of the UK NSC three year cycle.

Action

10. The UK NSC is asked to
    a. note the consultation responses and confirm that programme cessation should not be considered further for HIV, hepatitis B, and syphilis screening in pregnancy.
    b. note that an evaluation of the pilot exercises will be undertaken.

Annex A

List of organisations\individuals contacted:

1. British Association for Sexual Health and HIV
2. British HIV Association
3. British Infection Association
4. British Maternal & Fetal Medicine Society
5. British Society for Immunology
6. Faculty of Public Health
7. Fiona McCormack
8. GlaxoSmithKline
9. Halve It
10. Hepatitis B Foundation UK
11. Hepatitis B Positive Trust
12. Institute of Child Health
13. Dr Mary Ramsey (Consultant epidemiologist, PHE)
14. National Infection Service (PHE)
15. Royal College of General Practitioners
16. Royal College of Midwives
17. Royal College of Obstetricians and Gynaecologists
18. Royal College of Paediatrics and Child Health
19. Royal College of Physicians
20. Royal College of Physicians and Surgeons of Glasgow
21. Royal College of Physicians of Edinburgh
22. Sam Cramond
23. Samantha Walsh (NHSE)
24. Terrence Higgins Trust

UK National Screening Committee
Infectious Diseases in Pregnancy Screening programme (IDPS)
A pilot of the triage approach to assess whether existing population screening programmes should be continued

Consultation comments pro-forma

Name:	Professor Chloe Orkin	**Email address:**	xxxx xxxx
Organisation (if appropriate):	British HIV Association (BHIVA)		
Role:	**Chair**		

Do you consent to your name being published on the UK NSC website alongside your response?

Yes ☑ **No** ☐

Which conditions do your comments relate to?

Antenatal screening for Hepatitis B ☑

Antenatal screening for HIV ☑

Antenatal screening for syphilis ☑

Section and/or page	Text or issue to which comments relate	Comment *Please use a new row for each comment and add extra rows as required.*
	Whole document	BHIVA strongly supports the expert triage reports for antenatal syphilis, hepatitis B and HIV screening programmes in their conclusions that there is no evidence to justify exploring the cessation of these programmes. The sequelae of undiagnosed syphilis, HIV or hepatitis B are significant and entirely avoidable and for all three programmes the benefit of routine screening far outweighs any potential harm.
	Section 3, paragraph 2: In addition to the screening recommendation, there are a number of national policies and guidelines for the prevention, diagnosis and management of hepatitis B in newborns and pregnant women, notably:	BHIVA recommends an additional reference to the ‘’BHIVA Guidelines for the management of HIV infection in pregnant women 2012 (2014 interim review)”. Although the advice for antenatal screening for hepatitis B is no different, there are a number of important differences in the management of hepatitis B in HIV co-infection which the BHIVA guidelines outline.

Please return to screening.evidence@nhs.net by 5th December 2017

British Infection Association, sent by BIA Guidelines Secretary Dr Anna Goodman, Consultant in Infectious Diseases and GIM

Dear Adrian

It seems we did in fact send this out in September but for some reason were not on your stakeholders list.

Our members would strongly support ongoing screening for HIV, syphilis and Hepatitis B in pregnancy.
A member also suggested we include Hepatitis C in the future too but perhaps that will be the focus of another consultation. If not, please include it as a comment here.

Many thanks
XXXX XXXX

UK National Screening Committee
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Consultation comments pro-forma

Name:	Dr Nicky Connor	**Email address:**	xxxx xxxx
Organisation (if appropriate):	PHE		
Role:	**Consultant Epidemiologist HIV&STI Department**		

Do you consent to your name being published on the UK NSC website alongside your response?

Yes √☐ **No** ☐

Which conditions do your comments relate to?

Antenatal screening for Hepatitis B √☐

Antenatal screening for HIV √☐

Antenatal screening for syphilis √☐

Section and/or page	Text or issue to which comments relate	Comment *Please use a new row for each comment and add extra rows as required.*
		I support the findings of the evidence review: that there is no evidence to suggest that antenatal screening for hepatitis B, syphilis or HIV could be doing more harm than good. I agree with the NSC's conclusions that there is no justification for an in depth review of whether these conditions should be removed from the screening programme.

Please return to screening.evidence@nhs.net by 5th December 2017

Royal College of Obstetricians and Gynaecologists, sent by Bethany King, Editorial and Research Assistant

Dear Adrian

Many thanks for asking the RCOG to comment on this consultation.

We agree with the conclusions of the NSC that screening for Hepatitis B, HIV and Syphilis should continue; each of the reports concludes that there is no evidence suggesting that programme cessation (Hepatitis B, HIV and Syphilis) should be explored further.

Best wishes

XXXX XXXX

Royal College of Physicians, sent by Rochelle Keenaghan, Committee manager

Dear all
The RCP is grateful for the opportunity to respond to the above consultation.
We have liaised with our Joint Speciality Committee for Infectious Disease and would like to support the continuation of these screenings.
We would also like to note that we would like to see a consultation regarding extending the antenatal screening programme to include screening for hepatitis C now that effective treatments are readily available.
I would be grateful if you could confirm receipt.
Best wishes
XXXX XXXX | XXXX XXXX

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Consultation comments pro-forma

Name:	Paul Desmond	**Email address:**	xxxx xxxx
Organisation (if appropriate):	HBV Trust		
Role:	**Co ordinator**		

Do you consent to your name being published on the UK NSC website alongside your response?

Yes ☐**Y** **No** ☐

Which conditions do your comments relate to?

Antenatal screening for Hepatitis B ☐

Antenatal screening for HIV ☐**X**

Antenatal screening for syphilis ☐

Section and/or page	Text or issue to which comments relate	Comment *Please use a new row for each comment and add extra rows as required.*
X	Birth Dose HBV Vaccination	The cessation of HBV testing of pregnant women for HBV would lead to many of the 3500 babies born to positive mothers getting infected. The 2 month delay waiting for the pentavalent vaccine of HBV leaves a large window of contact between an undiagnosed mum and her without an immune system baby. The birth process itself has a range of real risks. Many babies will be infected by the use of forceps and other procedures that break babies skin during the actual birthing. If unidentified many babies born covered in active HBV blood will not be treated with the urgent washing and immunisation procedures that avoid infection. Babies have an umbilical gateway wound that bleeds and needs attending straight away. Large numbers will have accidental gateway wounds in the 2 month window until the universal immunisation schedule affects them, scratches, rashes, accidents. Mothers that are high load carriers (20%) will be even greater risks of infection to their babies. Such babies will 90% of the time become lifetime incurably infected. Having sacrificed 2 generations of migrant children to catch 1 to 4% HBV from their communities we will sacrifice a generation of HBV moms to 10 to 30% infect their babies.
X	Ante Natal testing has found at least 50,000 HBV moms to date	To drop ante natal screening will mean the bulk of new HBV diagnosis is ended. The largest cohort of diagnosed cHBV patients in the UK are found via ante natal testing. With next to no other testing in place our 4 to 500,000 HBV patients will completely disappear under the radar with a silent killer that is highly infectious.

		It will become much harder to notice which migrant communities are 2 to 10% infected If one child gets infected they will tend to infect the others in the family. HBV is able to move through close contact relatives at a chicken pox rate.
X	Huge misconceptions remain about who has HBV in the UK Vast Stigma will be created assuming the 10% of patients with HBV from drug or sexual lifestyles are the epidemic	Our liver units already note that 80% of diagnosed HBV patients are child infected migrants usually found via ante natal screening. The reality of HBV as a child acquired Pandemic will vanish and the tiny White British cohort will get all the testing at GUM and DAAT level and we will create a myth that hides who is at risk for decades. We will also maintain a stigma that generates fear and suppresses testing and completely mis informs the public as is happening with HCV. Testing will end up like HCV testing where millions of high risk 2% plus infected migrant ex patients and 1% infected UK workers and 2% infected transfusion ex NHS patients simply cannot access a test warning or even understand the virus is a threat. As we speak NHS choices and most media portray HBV as everything but a child acquired often from healthcare epidemic. Yet 80% of patients in liver units and contacting on our helpline over the last 8 years are from this transmission source. The large numbers of staff in work with blood professions have no idea of the tripling prevalence of HBV or its risk to themselves Maternity testing saves babies and motors care for communities and de stigmatises the epidemic, all such facts will be lost
X		
X		

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Consultation comments pro-forma

Name:	Sema Mandal	**Email address:**	xxxx xxxx
Organisation (if appropriate):	Public Health England - National Infection Service		
Role:	Consultant Medical Epidemiologist		

Do you consent to your name being published on the UK NSC website alongside your response?

Yes ☒ **No** ☐

Which conditions do your comments relate to?

Antenatal screening for Hepatitis B ☒

Antenatal screening for HIV ☐

Antenatal screening for syphilis ☐

Section and/or page	Text or issue to which comments relate	Comment *Please use a new row for each comment and add extra rows as required.*
Whole report and conclusions		**PHE**'s national Immunisation, Hepatitis and Blood Safety Department, HIV/STI department, and Blood-borne Virus Unit in the **National Infection Service fully endorse the UK NSC's report conclusion** that programme cessation should not be explored further because of no new evidence of harm. In support of the report's recommendation, we would like to highlight that: - Routine antenatal screening for hepatitis B has been recommended in the WHO Global Health Sector Strategy for Hepatitis 2016-2021 and is an intervention which has been identified to contribute to elimination of hepatitis B as a significant public health threat by 2030. Cessation of a screening programme that is upheld as an example of best practice would be counter to the overarching aims of the strategy, to which the UK government is a signatory. - Continuation of the antenatal screening programme is particularly important as universal hepatitis B infant immunisation has been introduced into the UK in September 2017 as part of the hexavalent infant immunisation programme. While this protects babies against future risks of hepatitis B it does not protect those infants from perinatal transmission from their mothers as there is no birth dose. It is therefore paramount that these at risk babies are identified through their mother's antenatal screening to ensure there is a maternity to primary care handover for timely coverage of the birth and 4

		weeks dose which are critical to prevent mother to child transmission. PHE immunisation, virology and screening teams are working together to enhance the hepatitis B screening and immunisation pathway in light of the universal hepatitis B immunisation programme to ensure that no mother or child is missed. - The universal antenatal screening and infant immunisation programmes have been shown to be not only cost effective but cost-saving to the NHS[12]. With the current level of vaccine coverage perinatal infection is expected to be reduced by 60%, saving 90 deaths and 169 discounted QALYs (quality adjusted life years in) in a birth cohort compared with no vaccination. As the cost of the vaccination programme is estimated to be £229,000 but the programme is estimated to result in net savings to the health service of approximately £288,000 (discounted) this translates into savings of £59,000 over the lifespan of a birth cohort. The savings and QALYs (quality adjusted life years) will increase with high risk scenarios (increased infectivity of mothers so increased chance of transmission and therefore increased benefits and savings from immunisation). Even with lower vaccine coverage, the programme still prevents 76 deaths with only 27 fewer QALYS and the cost savings are still over £200,000 over the life-span of the birth cohort, so remains cost-effective. In addition, improved coverage of later vaccine doses (2nd to 4th) has a greater impact on deaths averted and could still be cost saving even if there are additional administrative charges. [1]Best L, Stevens A, Milne R. Antenatal screening for Hepatitis B - an economic analysis. International Society of Technology Assessment in Health Care. Meeting. 1997 (abstract).

		[2] Dwyer MJ, McIntyre PG. Ante-natal screening for hepatitis B surface antigen: an appraisal of its value in a low prevalence area. Epidemiol Infect. 1996 Aug;117(1):121-31 - The antenatal screening programme is also a key contributor to case finding and referral to treatment of close household and sexual contacts of newly (ore previously) diagnosed pregnant women. Management of close family contacts of cases has historically been suboptimal. The antenatal screening result can act as a prompt to patients and professionals to ensure all those at risk in the family are tested, vaccinated or referred to secondary care and given appropriate prevention advice. **To summarise, in our opinion, cessation of the hepatitis B antenatal screening programme would do more harm than good. We therefore support continuation of the programme.**

Please return to screening.evidence@nhs.net by 25th November 2017