UK National Screening Committee

UK National Screening Committee (UK NSC)

Antenatal screening for fetomaternal alloimmune thrombocytopenia

Date: 28 October 2020

Contents

Aim

1. To ask the UK National Screening Committee (UK NSC) to make a recommendation, based on the evidence presented in the evidence map, whether or not further work should be pursued and whether or not the current recommendation on antenatal screening for fetomaternal alloimmune thrombocytopenia (FMAIT) should remain the same.

Current Recommendation

2. The UK NSC currently does not recommend systematic population screening for FMAIT. The Committee based this recommendation on the evidence provided by the 2017 review carried out by Solutions for Public Health.

3. The 2017 UK NSC identified several small observational studies about the proportion of babies with FMAIT resulting in serious adverse outcomes for the fetus or newborn such as intracranial haemorrhage (ICH) and fetal or neonatal death. The correlation between factors such as blood group, genotyping, maternal alloantibody concentration and FMAIT severity was inconsistent.

4. There was no evidence of a reliable predictor that can routinely identify first pregnancies of women at high risk of the baby developing severe FMAIT leading to disability or death of the baby before or after birth.

5. This review looked for studies on the optimal management of women to prevent severe outcomes in newborns from FMAIT. Due to the rarity of severe FMAIT only small volume of evidence was identified. In general, an optimal treatment regime had not been determined and treatment still failed for some babies where there was a history of severe FMAIT in previous pregnancies.

Evidence Map

6. The 2020 evidence map was undertaken by Solutions for Public Health, in accordance with the triennial review process.

7. The aim of the 2020 evidence map was to gauge the type and volume of evidence published since January 2016 and it focus on the screening performance of tests to identify pregnant women whose babies are at risk of severe FMAIT and the best treatment in terms of avoiding adverse outcomes from the condition.

8. The conclusion of the 2020 evidence map is that the current recommendation not to introduce the whole antenatal population screening for FMAIT should be retained and further work should not be pursued at this time.

9. This is because:

    a. 1 systematic review of 13 studies has been published examining the relationship between maternal HPA-1a antibody level in the third trimester of pregnancy and severity of FMAIT since the last evidence update. These studies are likely to have been considered previously by the UK NSC as the search dates of evidence update and systematic review overlap

    b. since the last UK NSC review there have been new studies published in the form of a systematic review, post hoc data analysis of an RCT and retrospective cohort studies about the optimal intervention of anti-HPA-1a women to prevent serious adverse outcomes in the newborn. The studies had small sample sizes and heterogeneity of treatment regime (precluding the pooling of results).

10. The findings of this evidence map are unlikely to impact on current recommendations on antenatal screening for FMAIT as the limitations of the volume and type of the new evidence identified would be unlikely change those conclusions.

11. On the basis of this evidence map, the volume and type of evidence related to antenatal screening for FMAIT is currently insufficient to justify an update review at this stage and so should be re-considered in 3-years' time.

Consultation

12. A three-month consultation was hosted on the UK NSC website from 28 July 2020 to 20 October 2020. Direct emails were sent to 21 stakeholders (see Annex A).

13. A consultation response was received from the Royal College of Paediatrics and Child Health. (See Annex B for comments)

14. Overall, stakeholders do not disagree with the conclusions of this evidence map.

Recommendation

15. The Committee is asked to approve the following recommendation:

An antenatal population screening for FMAIT is not recommended in the UK.

UK National Screening Committee

Annex A

List of organisations and individuals contacted

1. BLISS
2. British Association of Perinatal Medicine
3. British Committee for Standards in Haematology (BCSH)
4. British Paediatric Allergy, Immunology and Infection Group
5. The British Society for Haematology
6. Faculty of Public Health
7. Maternity Neonatal Unit, Bradford Teaching Hospitals NHS Foundation Trust
8. NAIT Babies
9. NHS Blood & Transplant
10. PHE ANNB Screening Programmes
11. RallyBio
12. Royal College of General Practitioners
13. Royal College of Midwives
14. Royal College of Obstetricians and Gynaecologists
15. Royal College of Paediatrics and Child Health
16. Royal College of Physicians
17. Royal College of Physicians and Surgeons of Glasgow
18. Royal College of Physicians of Edinburgh
19. Royal Society for Public Health
20. Tommy's
21. UK Newborn Screening Laboratories Network

UK National Screening Committee

Annex B

UK National Screening Committee

ANTENATAL SCREENING FOR FETOMATERNAL ALLOIMMUNE THROMBOCYTOPENIA

Consultation comments pro-forma

Name:	Royal College of Paediatrics and Child Health	**Email address:**	xxxx xxxx
Organisation (if appropriate):	Royal College of Paediatrics and Child Health: Comments received on behalf of Dr Ranveer Sanghera and Dr Jessica Farnan		
Role:			

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

Yes

Section and / or page number	Text or issue to which comments relate	Comment *Please use a new row for each comment and add extra rows as required*.
Page 8	Question1	The reviewer agrees with the statement made with regards to evidence and not changing evidence updates.
Page 8		Although there has been little new evidence since the previous review the evidence presented does suggest that HPA-1a antibody levels show a significant correlation with newborn platelet count and could therefore be an appropriate screening test.

Page 10	Question 2	The review agrees that the evidence has its limitations but would suggest that this is looked into on future reviews on this.
Page 11	Conclusion	The reviewer agrees that currently the recommendations do not require change but should be revisited soon for possible evidence to suggest a way to screen for this
Page 17		The evidence presented indicates that non-invasive treatment with IVIg has been shown to reduce the risk of ICH in pregnancies identified as high risk. Screening and treatment of such babies may be warranted, however larger studies comparing antenatal IVIg and neonatal transfusion would be helpful in further determining the benefits and associated risks.
General		Despite the above advances in identifying and managing high risk pregnancies the reviewer agrees with the recommendation not to proceed with screening for all pregnancies given the prevalence of significant disease is low.

Please return to the UK NSC Evidence Team at screening.evidence@nhs.net by 20 October 2020