

UK National Screening Committee

Antenatal screening for thrombophilia

23rd June 2017

Aim

1. To ask the UK National Screening Committee (UK NSC) to make a recommendation, based on the evidence presented in this document, whether or not screening for pregnant women for thrombophilia meets the UK NSC criteria to support the introduction of a population screening programme.

Current recommendation

2. A 2010 UK NSC review considered antenatal screening for thrombophilia. The current UK NSC recommendation is that systematic population screening for thrombophilia in pregnancy is not recommended. The conclusions from the 2010 review were mainly based on the largest study in this field, the TREATS health technology appraisal. TREATS concluded that overall thrombophilia can increase the risk of venous thromboembolism (VTE) and adverse pregnancy outcomes; however the risk associated with specific types of thrombophilia varies. The largest body of evidence looking at thrombophilia relates to factor V Leiden and prothrombin mutation. There are fewer studies available to be able to quantify the risk associated with the rarer hereditary or acquired type of thrombophilias.

No primary studies, identified from the 2010 review had assessed universal screening of all women, and no studies had been undertaken to explore the safety and effectiveness of anti-clotting treatment in preventing adverse pregnancy outcomes in screen-detected women. The TREATS HTA identified the need for large cohort studies to improve the evidence base in this area.

Review

3. The current review was undertaken by Bazian Ltd., in accordance with the triennial review process <https://legacyscreening.phe.org.uk/thrombophilia>.
4. The review looked for and evaluated studies addressing the association between hereditary or acquired thrombophilia and risk of adverse pregnancy outcomes; universal thrombophilia screening strategies in pregnancy and evidence that treating screen-detected women is safe and effective in reducing adverse pregnancy outcomes.
5. The main conclusion of this review is that universal antenatal screening for thrombophilia should not be recommended in the UK. This is because:
 - a. the evidence summary did not identify any studies assessing strategies of universal thrombophilia screening in pregnant women, either compared with no screening or with current practice of selective testing based on risk factors. Neither were there any studies identified on the performance of universal screening tests, cut-offs to use or timing of screening during pregnancy. **Criterion 5 not met***
 - b. Similarly no comparative studies were identified which assessed giving treatments to prevent thrombosis in screen-detected women, or in women who would be representative of all screen-detected women (ie without additional risk factors). No evidence on the effectiveness and safety of management and treatment strategies in populations representative of all screen-detected women was identified. **Criterion 10 not met**†

Consultation

6. A three month consultation was hosted on the UK NSC website. Direct emails were sent to 7 individuals/ organisations. **Annex A**
7. Only one response was received from The Royal College of Pathologists, see **Annex B** below.

The response agreed with the conclusion of the review.

* The previous 22 UK NSC criteria set were used to review the evidence. Criterion 5 correlates to criterion 4 on the new 20 points UK NSC criteria <https://www.gov.uk/government/publications/evidence-review-criteria-national-screening-programmes/criteria-for-appraising-the-viability-effectiveness-and-appropriateness-of-a-screening-programme>

† Criterion 10 correlates to criterion 9 on the new 20 points UK NSC criteria <https://www.gov.uk/government/publications/evidence-review-criteria-national-screening-programmes/criteria-for-appraising-the-viability-effectiveness-and-appropriateness-of-a-screening-programme>

Recommendation

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

A systematic population screening programme for thrombophilia in pregnant women is not recommended.

Based on the 22 UK NSC criteria set[‡] to recommend a population screening programme, evidence was appraised against the following criteria:

[‡] The previous 22 UK NSC criteria set were used to review the evidence. Criterion 5 correlates to criterion 4 on the new 20 points UK NSC criteria

Criteria		Met / Not met
The condition		
The Test		
5	There should be a simple, safe, precise and valid screening test.	Not met ✗
The intervention		
10	There should be an effective treatment or intervention for patients identified through early detection, with evidence of early treatment leading to better outcomes than late treatment.	Not met ✗

List of organisations\individuals contacted:

1. Dr Roopen Arya
2. The British Society for Haematology
3. Royal College of Obstetricians and Gynaecologists
4. Royal College of Pathologists
5. Royal College of Physicians
6. Royal College of Physicians and Surgeons of Glasgow
7. Royal College of Physicians of Edinburgh



**UK National
Screening Committee**

**UK National Screening Committee
Screening for Thrombophilia – an evidence review**

Consultation comments pro-forma

Name:	Dr Rachael Liebmann	Email address:	xxxx xxxx
Organisation (if appropriate):	Royal College of Pathologists		
Role:	Registrar		
<p>Do you consent to your name being published on the UK NSC website alongside your response?</p> <p>Yes X <input type="checkbox"/></p>			
<p>On which review are you commenting?</p> <p>Antenatal screening X Neonatal and general population X</p>			

Section and / or page number	Text or issue to which comments relate	<p style="text-align: center;">Comment</p> <p><i>Please use a new row for each comment and add extra rows as required.</i></p>
	Consultation document	<p>1 About the Royal College of Pathologists</p>
		<p>1.1 The Royal College of Pathologists (RCPATH) is a professional membership organisation with charitable status. It is committed to setting and maintaining professional standards and to promoting excellence in the teaching and practice of pathology. Pathology is the science at the heart of modern medicine and is involved in 70 per cent of all diagnoses made within the National Health Service. The College aims to advance the science and practice of pathology, to provide public education, to promote research in pathology and to disseminate the results. We have over 10,000 members across 19 specialties working in hospital laboratories, universities and industry worldwide to diagnose, treat and prevent illness.</p>
		<p>1.2 The Royal College of Pathologists response reflects comments made by Fellows and members of the College during the consultation, which ran from 14th February 2017 until the 21st April 2017 and collated by Dr Rachael Liebmann, Registrar.</p>

		<p>2 COMMENTS</p> <p>2.1 In response to the proposals the Fellows pointed out the current consultation maintains the position adopted in its guidance by the British Society for Haematology/ British Committee for Standards in Haematology.</p>
		<p>2.3 In general the responses to the consultation were favourable. Fellows of the College, for whom the subject matter falls within their area of expertise and clinical practice, were satisfied that these were well-conducted reviews and that the conclusions reached took into account all appropriate and relevant evidence.</p>
		<p>2.4 Some Fellows considered that thrombophilia should not be part of a routine screening tool but used for selected patients whose management would change or be influenced by such a test. Others pointed out that routine screening should not take place as no prophylaxis would be given if the person was on screening to have a thrombophilic condition.</p>

Please return to the UK NSC Evidence Team screening.evidence@nhs.net by 8th May 2017