

Guidelines for Thrombophilia Testing in the Laboratory

Approval Committee	Version	Issue Date	Review Date	Document Author
Thrombosis Committee	1	Feb, 2011	Feb, 2013	Dr Emma McDonald Haematology Registrar Dr Joseph Chacko Consultant Haematologist

Background

Heritable thrombophilia describes the increased risk of venous thrombosis due to an inherited defect in the coagulation cascade. Venous thrombosis due to acquired risk factors is usually obvious from history and examination. It has been shown that indiscriminate testing in symptomatic patients does not predict for a recurrent thrombotic event⁽¹⁾. In addition, it has been shown that results of thrombophilia testing are often misinterpreted.

The British Committee for Standards in Haematology have recently published guidelines for the testing of inherited thrombophilia with the aim of reducing the number of inappropriate tests⁽¹⁾

These guidelines have been used to draw up the following indications for testing patients presenting to the Royal Bournemouth Hospital & Christchurch Hospitals NHS Foundation Trust.

NOTE:

A panel of tests are performed by the laboratory when thrombophilia screen is requested. The laboratory requires 6 x citrated tubes (blue-top), 1 x EDTA tube (purple top) and 1 x clotted sample tube (yellow top) for the full panel of tests.

The questionnaire relating to thrombophilia testing must also be completed (page 4).

Tests for antiphospholipid syndrome may be requested separately if clinically indicated. Send 2 x citrated tubes (blue-top) and 1 x clotted sample tube (yellow top).

It is not necessary to complete the questionnaire if this test alone is requested.

Telephone coagulation laboratory on extension 4787 for further advice.

Guidelines

Testing is **not** required in the following patients

1. Patients currently receiving anticoagulation treatment with warfarin, low molecular weight heparin or unfractionated heparin
2. Patients who have an active thrombus on anticoagulant treatment
3. Patients in whom a decision has been made to treat with life-long warfarin
4. Unselected female patients who are pregnant with a history of unprovoked thrombus
5. Asymptomatic children who are unable to give informed consent to testing even with a positive family history of inherited thrombophilia
6. Patients with arterial thrombosis
7. Patients with retinal vein thrombosis
8. Unselected patients presenting with a first episode of thrombosis
9. Patients presenting with a thrombus with an obvious precipitating cause

10. Patients with a central venous catheter-related thrombus
11. Unselected patients with a first-degree relative who has an unprovoked thrombosis in whom oral contraceptives or HRT are being considered
12. Hospitalised patients to assess the risk of thrombosis associated with immobility
13. Unselected young patients with a stroke including children

Testing **is required** in the following patients

1. Patients presenting with a venous thrombosis who are < 40years old and do not have precipitating cause
2. Patients presenting with an unprovoked venous thrombosis who have an apparent thrombosis-prone family (more than one symptomatic family member)
3. Patients with a first-degree relative with a confirmed inherited thrombophilia
4. Patients presenting with a venous thrombosis at an unusual site without an obvious cause e.g. mesenteric thrombus
5. Patients with skin necrosis associated with oral vitamin K antagonists should be tested for protein C and S deficiency once anticoagulation has been stopped
6. Antiphospholipid antibodies and lupus anticoagulant in young patients with a stroke and no known risk factors for arterial disease
7. Testing in patients with recurrent pregnancy-related complications e.g. recurrent miscarriage. (Discuss with Haematologist)

Reference

1. Baglin T, Gray E, Greaves M et al. Clinical guidelines for testing for heritable thrombophilia. **2010** *BJ Haem* 149: 209-220

Questionnaire to accompany all requests for testing for inherited thrombophilia

Please indicate the reason for requesting a thrombophilia screen
Screening will not be performed without an appropriate indication
Discuss with a Haematologist if there are any concerns.

Patient identification : Name
Hospital Number
Date of birth
Name of requesting clinician
Contact number for requesting clinician

Indication

- Patient presenting with a thrombus, <40 years old, no precipitating cause

- Patient presenting with an unprovoked thrombus and has an apparent thrombosis-prone family

- Patient has a first-degree relative with a confirmed inherited thrombophilia

Please indicate known positive result

- Patient has a thrombus at an unusual site without an obvious cause e.g. mesenteric thrombus

- Patient has had skin necrosis associated with oral vitamin K antagonists, Anticoagulation has been stopped

- Other
State indication;