

NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

SCOPE

1 Guideline title

Venous thromboembolic diseases: the management of venous thromboembolic diseases and the role of thrombophilia testing

1.1 *Short title*

Venous thromboembolic diseases

2 The remit

The Department of Health has asked NICE: 'to produce a clinical guideline on the management of venous thromboembolic diseases, including use of thrombophilia testing'.

3 Clinical need for the guideline

3.1 *Epidemiology*

- a) Venous thromboembolism (VTE) is a term used to describe a blood clot in a vein (a thrombus) that dislodges from its site of origin to travel in the blood (called embolism). The process of the thrombus forming is called 'thrombosis'. A thrombus most commonly occurs in the deep veins of the legs; this is called a deep vein thrombosis (sometimes called DVT).
- b) Thrombophilia is an abnormal tendency for the blood to clot, which can cause venous thromboembolism in some people. Some types of thrombophilia are inherited, others develop later in life.
- c) Venous thromboembolic diseases cover a spectrum ranging from asymptomatic calf vein thrombosis to a symptomatic deep vein

thrombosis, which may lead to a potentially fatal pulmonary embolism (when the clot blocks the blood supply to the lungs).

- d) Non-fatal venous thromboembolism may produce long-term illness, including chronic venous insufficiency. This is a condition that may cause venous ulceration and development of a post-thrombotic limb (chronic pain, swelling and skin changes in the affected limb following a deep vein thrombosis).
- e) The Hospital Episodes Statistics for 2005/06 reported 27,194 finished consultant episodes (that is, periods of care under a consultant within an NHS Trust) of pulmonary embolism in England. The number of deep vein thromboses reported was 34,055. These are likely to be underestimates.
- f) An epidemiological model using extrapolation from European data for 2004 suggested that almost three quarters of all venous thromboembolism-related deaths were from hospital acquired venous thromboembolism
- g) Risk factors for venous thrombosis include age over 60 years, surgery, obesity, prolonged travel, acute medical illness (including cancer), immobility, thrombophilia and history of deep vein thrombosis and pregnancy.

3.2 *Current practice*

- h) The current standard practice for treatment of a deep vein thrombosis is anticoagulation. Patients are usually given a brief course of heparin treatment while they start on a 3–6 month course of warfarin. Patients who have had recurrent deep vein thromboses are often given life-long treatment with anticoagulants.
- i) There is a wide variation in practice as to when to test for thrombophilia in patients who have had a venous thromboembolism and controversy as to how thrombophilia should be managed.

- j) Patients with cancer may need special advice on how to manage venous thromboembolism.
- k) NICE has published guidance on 'Venous thromboembolism: reducing the risk of venous thromboembolism (deep vein thrombosis and pulmonary embolism) in patients admitted to hospital' (2010). SIGN has published guidelines on prophylaxis of venous thromboembolism (2002) and antithrombotic therapy (1999).
- l) There is a need for guidance on the management of venous thromboembolic diseases, including the role of newer orally active anticoagulants. There is also a need to establish whether patients should have thrombophilia testing after a venous thromboembolism, and if so how this would affect subsequent treatment.

4 The guideline

The guideline development process is described in detail on the NICE website (see section 6, 'Further information').

This scope defines what the guideline will (and will not) examine, and what the guideline developers will consider. The scope is based on the referral from the Department of Health.

The areas that will be addressed by the guideline are described in the following sections.

4.1 Population

4.1.1 Groups that will be covered

- a) Adults (18 years and older) with a suspected deep vein thrombosis or pulmonary embolism.
- b) Within this population, patients with cancer have been identified as a group requiring special consideration.

- c) First degree relatives of people with inherited thrombophilia and venous thromboembolic diseases.

4.1.2 Groups that will not be covered

- a) Children and young people (younger than 18 years).
- b) Pregnant women.

4.2 *Healthcare setting*

- a) Primary, secondary and tertiary settings.

4.3 *Clinical management*

4.3.1 Key clinical issues that will be covered

- a) Diagnostic tests used for initial assessment of suspected deep vein thrombosis.
- b) The clinical and cost effectiveness of interventions to manage venous thromboembolic diseases will be evaluated, including:
- mechanical
 - vena caval filters
 - compression stockings.
 - pharmacological:
 - unfractionated heparin
 - low molecular weight heparin
 - heparinoids
 - synthetic pentasaccharides, such as fondaparinux
 - oral anticoagulants, such as warfarin.

Note that guideline recommendations will normally fall within licensed indications; exceptionally, and only if clearly supported by evidence, use outside a licensed indication may be recommended. The guideline will assume that prescribers will use a drug's summary of product characteristics to inform decisions made with individual patients.

- c) Thrombolytic therapy and mechanical thrombectomy.
- d) The duration of treatment.
- e) Screening for undiagnosed malignancy in people with spontaneous venous thromboembolism.
- f) Self-monitoring by patients on pharmacological treatment.
- g) Thrombophilia testing for patients after a previous venous thromboembolism and first degree relatives of people with inherited thrombophilia and venous thromboembolic diseases.
- h) Information and support for patients and carers.

4.3.2 Clinical issues that will not be covered

- a) Prophylaxis against venous thromboembolism.
- b) Upper limb deep vein thrombosis.

4.4 Main outcomes

- a) Venous thromboembolism related mortality.
- b) All cause mortality.
- c) Symptomatic deep vein thrombosis.
- d) Asymptomatic deep vein thrombosis.
- e) Symptomatic pulmonary embolism.
- f) Asymptomatic pulmonary embolism.
- g) Composite venous thromboembolism (composite of recurrent, symptomatic, non-fatal DVT or pulmonary embolism and mortality).
- h) Recurrent venous thromboembolism rates.
- i) Major bleeding.

- j) Minor bleeding.
- k) Quality of life (validated quality of life scores only).
- l) Post thrombotic syndrome.
- m) Chronic pulmonary hypertension.
- n) Heparin induced thrombocytopenia.
- o) Diagnostic accuracy
- p) Length of hospital stay.

4.5 *Economic aspects*

Developers will take into account both clinical and cost effectiveness when making recommendations involving a choice between alternative interventions. A review of the economic evidence will be conducted and analyses will be carried out as appropriate. The preferred unit of effectiveness is the quality-adjusted life year (QALY), and the costs considered will usually only be from an NHS and personal social services (PSS) perspective. Further detail on the methods can be found in 'The guidelines manual' (see 'Further information').

4.6 *Status*

4.6.1 *Scope*

This is the consultation draft of the scope. The consultation dates are 29 March to 26 April 2010.

4.6.2 *Timing*

The development of the guideline recommendations will begin in June 2011.

5 Related NICE guidance

5.1 *Published guidance*

- Venous thromboembolism: reducing the risk. NICE clinical guideline 92 (2010), which replaced CG46. Available from www.nice.org.uk/guidance/CG92
- Rivaroxaban for the prevention of venous thromboembolism after total hip or total knee replacement in adults. NICE technology appraisal guidance 170 (2009). Available from www.nice.org.uk/guidance/TA170
- Medicines adherence. NICE clinical guideline 76 (2009). Available from www.nice.org.uk/guidance/CG76
- Dabigatran etexilate for the prevention of venous thromboembolism after hip or knee replacement surgery in adults. NICE technology appraisal guidance 157 (2008). Available from www.nice.org.uk/guidance/TA157

5.2 *Guidance under development*

NICE is currently developing the following related guidance (details available from the NICE website)

- Apixaban for the prevention of venous thromboembolism in people undergoing elective knee and hip replacement surgery. NICE technology appraisal guidance. Publication date to be confirmed.

The following guidance will be incorporated when published.

- Dabigatran etexilate for the treatment of acute venous thromboembolic events. NICE technology appraisal guidance. Publication date to be confirmed.

6 Further information

Information on the guideline development process is provided in:

- 'How NICE clinical guidelines are developed: an overview for stakeholders' the public and the NHS'
- 'The guidelines manual'.

These are available from the NICE website (www.nice.org.uk/guidelinesmanual). Information on the progress of the guideline will also be available from the NICE website (www.nice.org.uk).