

## UK Government: A Health Systems Approach to Prevention of VTE

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### Modern Understanding of VTE

- ▶ Natural history & best methods of treatment and prevention
- ▶ Research work carried out in the NHS in 1970s and 1980s by Professor Vijay Kakkar funded by Medical Research Council
- ▶ Led to development low dose/mol wt heparins - now the global gold standard for the treatment and prevention of VTE

# UK Government: A Health Systems Approach to Prevention of VTE



Health Committee



House of Commons  
Health Committee

## The Prevention of Venous Thromboembolism in Hospitalised Patients

Second Report of Session 2004-05

Report, together with formal minutes, oral and written evidence

Ordered by The House of Commons to be printed 23 February 2005

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Key message of 2005 UK House of Commons Health Committee VTE Report was that

*"Each year over 25,000 people in England die from venous thromboembolism (VTE) contracted in hospital. This is more than the combined total of deaths from breast cancer, AIDS and traffic accidents, and more than twenty-five times the number who die from MRSA. The figures are alarmingly high. Even more alarming is the fact that many of these deaths are preventable. There is a safe, efficacious and cost effective method of preventing venous thrombosis which is not being as widely administered as it should be".*

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From the Chief Medical Officer, Sir Liam Donaldson

**Department of Health**

Ministerial House

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Government Response to the House of Commons Health Committee Report on the Prevention of Venous Thromboembolism in Hospitalised Patients – Second Report of Session 2004–05

Presented to Parliament by the Secretary of State for Health by Command of Her Majesty July 2005

Cm 6625

£7.00

**Government Response to the House of Commons Health Committee Report on the Prevention of Venous Thromboembolism in Hospitalised Patients – Second Report of Session 2004–05**

recommend what action can be taken immediately, in the medium term, and what can wait for the NICE guidance on the prevention of venous thromboembolism in patients undergoing orthopaedic surgery and other high risk surgical procedures in 2007. NICE's consultation on the first draft of the VTE clinical guideline will take place in 2006.

specifically consider the appropriateness of promoting more widely existing guidance on the use of mechanical devices (foot-pumps) or pharmacological preparations (heparin heparin or other anti-coagulant) and to clarify the issue of use of aspirin.

make recommendations on how to develop the existing thrombosis committees into demonstration sites looking at prevention as well as treatment of VTE in hospitalised patients and consider how this approach can be rolled out nationally including the appropriate resourcing at both local and national level.

In meantime, I am taking this opportunity to draw to your attention a selection of the key existing guidelines that aid the prevention of venous thromboembolism in hospitalised patients.

1. The British Committee for Standards in Haematology (BSCH) have issued guidelines on the use of heparin which will cover prevention of venous thromboembolism and will be producing 2 additional guidelines on thromboprophylaxis (in surgery and medicine) to include mechanical methods by the end of this year. <http://www.bschguidelines.com>
2. British Thoracic Society guidelines for the management of suspected acute pulmonary embolism. <http://www.thorax.org.uk>
3. The Royal College of Obstetricians and Gynaecologists which has issued a series of guidelines which are followed by the obstetric community. <http://www.rcog.org.uk>
4. American College of Chest Physicians latest guidance on Antithrombotic Therapy. <http://www.chestnet.org/education/guidelines/currentguidelines.php>
5. The Scottish Intercollegiate Guidelines Network (SIGN) which supports the improvement in the quality of health care for patients in Scotland by developing national guidelines containing recommendations for effective practice based on current evidence have produced guidelines on the Prophylaxis of Venous Thromboembolism. <http://www.sign.ac.uk>.

Sir Liam Donaldson  
SIR LIAM DONALDSON  
CHIEF MEDICAL OFFICER

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- ▶ UK Government's formal response to the Health Committee report was emphatic

*"The Government agrees with the Committee's statement that much more needs to be done and that there are currently far too many preventable deaths from venous thromboembolism in hospitalised patients. The Committee's estimation of 25,000 deaths a year due to VTE is a serious issue which requires rapid and comprehensive action and we welcome the advice and information the Committee has provided to help the Government tackle this issue."*

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*"We recognise that there is no systematic approach to identifying and treating those patients at risk from VTE in hospitals and that there is significant room for improvement"*

*"It is not just people at risk from developing VTE in hospitals that we need to ensure are subject to robust risk assessment but also people with existing VTE conditions"*

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- ▶ UK Government asked the Chief Medical Officer, Professor Sir Liam Donaldson to establish an independent expert working group to report to him with recommendations by Summer 2006
- ▶ Sir Liam asked the expert to
  - "consider how current best practice and guidance can be promoted and implemented and what resources might be needed to support delivery of any strategy through existing structures. This should include consideration of the need to promote or clarify existing guidance on the use of
    - mechanical devices (foot-pumps)
    - aspirin
    - other pharmacological preparations (heparin or other anti – Xa agent)"

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The National Institute for Health and Clinical Excellence in England was asked by the Department of Health to produce guidelines on

*“Venous thromboembolism: the prevention of venous thromboembolism (deep vein thrombosis and pulmonary embolism) in patients undergoing orthopaedic surgery and other high-risk surgical procedures”*

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The VTE Expert Group considered best existing guidelines for thromboprophylaxis for

- ▶ All medical patients
- ▶ Intermediate-risk surgical patients
- ▶ Low risk surgical patients

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Report of the VTE expert group published by the Chief Medical Officer/Department of Health on 19 April 2007



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Key Recommendations of the report were

- ▶ A VTE risk assessment of every patient on admission to hospital in England
- ▶ Raising awareness and improving understanding of VTE by patients public and professionals
- ▶ Establishing `exemplar centres` to share best practice throughout the NHS and wider healthcare settings

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### Recommended effective preventative measures

- ▶ For medical patients, particularly those at increased risk, low dose heparins
- ▶ For intermediate surgical risk patients (or any surgical patients with concomitant medical conditions) low dose heparins and graduated stockings
- ▶ Low risk surgical patients do not require specific prophylaxis
- ▶ Aspirin is not recommended for medical patients or for intermediate and low-risk surgical patients

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At same time Government announced to UK Parliament a national strategy for VTE

“In June 2005 we published the Government's response to the second report of the House of Commons Health Committee on the prevention of venous thromboembolism in hospitals. At the same time we announced that an independent expert working group would be set up to make recommendations on developing a national strategy on the prevention and treatment of venous thromboembolism (VTE). The report and recommendations of the expert group were presented to the Chief Medical Officer in July 2006.”

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"It is clear from the expert group's report that introducing a VTE risk assessment for all patients on admission has the potential to save thousands of lives every year. We have therefore established an implementation working group which will develop a national risk assessment tool, and will provide leadership both within the NHS and the wider healthcare sector to assess what needs to be done to ensure that a VTE risk assessment of every patient on admission to hospital becomes a reality."

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On 25 April 2007 the National Institute of Clinical Excellence (NICE) in England published VTE guidance under the title

*"Venous thromboembolism: reducing the risk of venous thromboembolism (deep vein thrombosis and pulmonary embolism) in inpatients undergoing surgery"*

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NICE have been asked by the Department of Health to produce guidance on prevention of VTE for all hospital patients – due 2009

Department of Health and the Chief Medical Officer expect this guidance to take account fully of national and international guidance published in the meantime including the report of the VTE expert group

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UK Government and Chief Medical Officer consider VTE a major patient issue

- ▶ Common
- ▶ Silent
- ▶ Difficult to Predict
- ▶ Preventable
- ▶ High Risk identifiable
- ▶ High Cost of inaction

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### COMMON

- ▶ 25,000 VTE hospital deaths; 50,000 hospital & Community in England
- ▶ 1 in 5 medical patients develop VTE if no prophylaxis
- ▶ Around 1 in 4 of all VTE (Hospital and Community) occur in medical patients in hospital

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### SILENT

### DIFFICULT TO PREDICT

- ▶ Less than 1 in 10 fatal pulmonary emboli diagnosed before death

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### At Risk

- ▶ Medical patients

$\frac{3}{4}$  of all fatal PEs occur in patients admitted from non surgical reasons

Admission with acute medical illness increases risk x 8

Risk often unrecognised by clinicians

Immobility Older patients Chronic Disease

Risk profile similar to heart disease and stroke

- ▶ Surgical patients

Immobility Individual risk Procedures

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### Costly

- ▶ Lives and long term illness of people of all ages

- ▶ Total cost of managing VTE around £640m (appx \$1554m Aus) in UK each year

- ▶ At least £68m (\$165M Aus) paid or outstanding for litigation re VTE related conditions over last 10 years

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### National VTE Strategy in England

- ▶ Sep 2007 to end of 2009
- ▶ Chief Medical Officer's VTE Implementation Working Group developing a national VTE risk assessment tool to be made available by the Government to all hospitals (NHS and others)

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- ▶ Hospitals in England expected to risk assess all patients on admission for VTE by end of 2009
- ▶ Exemplar VTE sites (hospitals, Primary Care Trusts) will promote best practice
- ▶ Current exemplar VTE hospitals are Kings College Hospital London and the London Clinic
- ▶ Information on the national risk assessment tool and exemplar sites will be made available on the Department of Health VTE web pages shortly

## UK Government: A Health Systems Approach to Prevention of VTE

- ▶ Encouraging high quality research and innovation within the NHS
- ▶ Providing leadership by working closely with key stakeholders including professional bodies and societies and patient representatives
- ▶ National VTE Implementation Working Group is partnered with Plymouth Hospitals NHS Trust and the Thrombosis Research Institute, London

### What will success look like?

