



# **National Assembly for Wales Health and Social Care Committee: Inquiry into Venous Thromboembolism prevention in Wales**

## **Royal College of Physicians' submission**

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4 May 2012

1. The Royal College of Physicians (RCP) is pleased to submit written evidence to the National Assembly for Wales' Health and Social Care Committee Inquiry into Venous Thromboembolism (VTE) prevention in Wales.

### **Introduction**

#### **About VTE**

2. VTE – blood clots – manifests as both deep vein thrombosis (DVT) and pulmonary embolism (PE). Blood clots form in the veins deep in the leg, usually in the calf or thigh, although occasionally DVT can occur in other veins of the body. A DVT may cause no symptoms at all or may cause swelling, redness and pain.
3. The majority of deaths from VTE are caused by part of the clot breaking off, travelling around the body and eventually blocking the pulmonary arteries (arteries in the lungs). This is known as a pulmonary embolism (PE). PE can occur suddenly and without warning, though symptoms can include coughing (with blood-stained phlegm), chest pain and breathlessness. PE can be fatal.
4. Patients who survive a PE may develop long-term comorbidities, including post-thrombotic syndrome, which consists of chronic swelling and ulceration of the legs. This can significantly impact quality of life.

#### **Estimates of hospital-acquired VTE in Wales**

5. In 2005, the House of Commons Health Select Committee in England conducted a similar, one day Inquiry into the prevention of VTE in hospitalised patients<sup>1</sup>. The subsequent report estimated that 25,000 avoidable deaths occur every year in the UK from hospital-acquired VTE.
6. While there has been some debate in recent years over the accuracy of the 25,000 avoidable deaths figure<sup>2</sup>, it is widely agreed that many thousands of deaths occur every year from preventable VTE acquired in hospitals across the UK. Work in England is ongoing to develop up-to-date and accurate statistics about incidence and death from hospital-acquired VTE, though this task entails significant difficulty due to the often clinically silent nature of VTE, and a fall in the number of postmortems in recent years.

### **Preventing hospital-acquired VTE**

7. It is a well-established clinical fact that hospital-acquired VTE can be prevented through a combination of two simple, safe and effective steps: a risk assessment of patients for their VTE and bleeding risk, to identify those at risk of VTE and those for whom preventative treatment is appropriate; and administering preventative treatment for those identified as being at risk of VTE, in the form of pharmacological prophylaxis and / or mechanical prophylaxis.
8. NICE clinical guideline 92, published in January 2010, provides a comprehensive and up to date set of best practice recommendations for VTE prevention applicable across England and Wales. The guideline makes recommendations on assessing and reducing the risk of VTE in patients in hospital, and offers guidance on the most clinically and cost-effective measures for VTE prophylaxis in these patients. The recommendations take into account the potential risks of the various options for prophylaxis and patient preferences<sup>3</sup>.
9. VTE prevention, in line with the recommendations contained within NICE clinical guideline 92, is therefore a simple, safe and effective measure which can prevent thousands of avoidable deaths from hospital-acquired VTE every year.

### **Financial cost of hospital-acquired VTE**

10. VTE prevention is undoubtedly a cost effective measure for health boards in Wales to implement. NICE has demonstrated that compliance with NICE clinical guideline 92 to prevent hospital-acquired VTE saves money, over and above the cost of managing VTE once it has developed.
11. Following the publication of NICE clinical guideline 92, NICE placed VTE prevention within its list of top ten cost effective guidelines. NICE estimated that effective VTE prevention would cost the NHS in the UK an additional £21.9 million nationally – but this figure is more than offset by the anticipated reductions in DVT and PE, estimated to save £26.3 million nationally. The costing template published alongside the guidance suggested that, for a population of 100,000, the NHS could expect to generate savings of £11,000.

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<sup>1</sup> Available at <http://www.publications.parliament.uk/pa/cm200405/cmselect/cmhealth/99/99.pdf>

<sup>2</sup> BMJ article and responses available at <http://www.bmj.com/content/343/bmj.d6452>

<sup>3</sup> P5 <http://www.nice.org.uk/nicemedia/live/12695/47195/47195.pdf>

12. In contrast, statistics published by The Office for Healthcare Economics in 1993 estimated that the annual cost of treating patients who developed post-surgical DVT and PE was in the region of £204.7 to £222.8 million in the UK. The total cost (direct and indirect) to the UK of managing VTE is estimated at £640 million (House of Commons Health Select Committee, 2005)<sup>4</sup>.
13. These figures clearly demonstrate that compliance with best practice in VTE prevention (that is, risk assessment of patients for VTE on admission and the administration of appropriate prophylaxis) makes financial sense for health boards in Wales at a time when there are significant pressures to manage costs. VTE prevention is a simple, effective, and cost-efficient measure to save lives.

## Submission

### Building on NHS Wales successes and continuing to improve VTE prevention

14. The medical director of Lifeblood Wales and Chair of the All-Wales Thrombosis Group (AWTG), Dr Simon Noble, has promoted HAT prevention – hospital-acquired thrombosis (the preferred term in Wales) alongside the ‘1000 Lives Campaign’, a national patient safety initiative launched in 2008 aimed at avoiding 1000 avoidable deaths across NHS Wales. This campaign continues under the auspices of ‘1000 Lives Plus’ and Dr Noble remains faculty lead for prevention of HAT.
15. The 1000 Lives campaign achieved its aim of preventing 1000 avoidable deaths and continues to lead the patient safety agenda in Wales. Many of the successes of 1000 Lives and 1000 Lives Plus are clearly evident with marked improvements in safer drugs management, reducing infection rates, pressure sores etc. However, the complexity of HAT prevention and the many challenges faced in implementing a sustainable HAT prevention programme means that the successes seen in other health improvement areas are not as evident in HAT prevention.
16. The work of 1000 Lives and 1000 Lives Plus has taken HAT prevention to a point where, with appropriate Welsh assembly members’ and Welsh government support and leadership, a standardised HAT prevention strategy and monitoring programme could be implemented with a system to demonstrate measurable patient benefit.
17. The RCP therefore views this Inquiry as a critical opportunity to help shape the national agenda and drive the prioritisation of VTE prevention forward across Wales to ensure all patients receive appropriate prophylaxis when assessed as being at risk of VTE. We recognise that the Health Select Committee Inquiry in England from 2005 acted as a game-changer at the time and continues to be an authoritative source about the scale of avoidable VTE and the simple steps that can be taken to prevent it.
18. The majority of this submission will focus on broad examples of practice we have learnt from other national approaches to VTE prevention – what has worked well, what we believe falls short in developing an outcomes-focused national approach to VTE prevention, and the opportunity presented by this Inquiry for the Committee to support a robust, comprehensive and national approach to VTE prevention across Wales.

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<sup>4</sup> Cited from NICE Clinical Guideline 92 Costing Template, available at <http://www.nice.org.uk/nicemedia/live/12695/47234/47234.pdf>

19. In the final part of this submission, we list a number of recommendations for the Committee to consider. We believe these steps will support national leadership on VTE prevention across Wales by highlighting the need for a national focus on outcomes (that is, risk assessment and appropriate prophylaxis), supported by long-term, system-wide structures and approaches to achieve this.

#### **Implementation of NICE clinical guideline 92 in Wales**

20. We defer to the submission from the All-Wales Thrombosis Group for evidence on this matter.

#### **Implementation of the 1000 Lives Plus risk assessment tool in Wales**

21. We defer to the submission from the All-Wales Thrombosis Group for evidence on this matter.

#### **The adequacy and effectiveness of the 1000 Lives Plus risk assessment tool in preventing venous thromboembolism in hospitalised patients; problems in the implementation and delivery of VTE prevention actions; the effectiveness and utilisation of pharmacological and mechanical prophylaxis for VTE**

22. We commend the 1000 Lives Plus team for working with the All-Wales Thrombosis Group to develop robust and comprehensive sets of VTE risk assessment and prophylaxis tools during 2010, and further for supporting health boards to implement these tools locally in the form of the HAT Collaborative last year. The forms are certainly adequate in that they comply with NICE clinical guideline 92, and they provide guidance on both risk assessment *and* appropriate prophylaxis for at risk patients. In this respect, the template tools go further than the national VTE risk assessment tool published by the Department of Health in England<sup>5</sup>, which, although compliant with NICE clinical guideline 92 in the risk factors for VTE and bleeding for the purposes of risk assessment, do not include guidance on appropriate prophylaxis. The RCP therefore commends the 1000 Lives Plus tools as an adequate template to implement VTE prevention in line with existing, national best practice, at the local level.
23. However, we note that the effectiveness of such tools in practice is limited by their uptake at the ward level. This is in turn driven by, amongst other things, the degree to which health boards require, as part of a local VTE prevention policy, that all patients admitted to hospital receive a VTE risk assessment, and are administered appropriate prophylaxis. Unless health boards stipulate this requirement for every patient admitted to hospital in their local VTE policy – and audit compliance in accordance with this – there is no demand or driver to implement the tools at a local level. In addition, limited professional and commissioner awareness about the scale of hospital-acquired VTE limits the individual responsibility taken by health care professionals to ensure VTE risk assessments are completed.
24. As stated above, we have deferred to the All-Wales Thrombosis Group for evidence about the uptake of the tools at the local level. However, based on experience from England on how the uptake of the national VTE risk assessment tool published by the Department of Health has

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<sup>5</sup> Available at

[http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/@dh/@en/@ps/documents/digitalasset/dh\\_11335\\_5.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_11335_5.pdf)

been driven, we strongly believe that the national prioritisation of VTE prevention across NHS Wales is essential if we are to ensure that health boards demand, in local VTE prevention policies, that all patients admitted to hospital have a VTE risk assessment and prophylaxis form completed in line with NICE clinical guideline 92. This must be complemented by the requirement that health boards provide regular audit results to the Welsh government on the percentage of patients who have been risk assessed using the tools, and who have received appropriate prophylaxis treatment. This approach will not only recognise the scale of hospital-acquired VTE and the ease and cost-effectiveness with which it can be prevented across NHS Wales, it will also drive the effective use of the national tools at the local level.

25. Such a national approach has been successful in improving the uptake of the national VTE risk assessment tool in England. VTE prevention has been named a national clinical priority across England since 2010. In the same year, the national commissioning for quality and innovation (CQUIN) scheme was introduced in England. This scheme requires each trust to provide monthly census data to the Department of Health on the percentage of patients who have been risk assessed for VTE; if trusts can demonstrate they have risk assessed 90% of adult admissions for VTE in a month, they receive a financial payment. National prioritisation, coupled with national reporting requirements, has been instrumental in improving risk assessment rates, as we have seen a rise in the percentage of NHS patients risk assessed for VTE on admission climb from under 40% to over 90% in under two years.
26. However, the English approach has been viewed as burdensome by some, due to requirement to report monthly census rather than sample data of patients who have been risk assessed for VTE. In addition, and more importantly, the English approach sees the requirement to report monthly audits of prophylaxis rates left to the local level – there is no national goal for prophylaxis rates supported by a national audit requirement. As such, evidence collected from the All-Party Parliamentary Thrombosis Group during their annual audits of NHS trusts demonstrates that the ongoing, national improvements in VTE risk assessment rates delivered through the national CQUIN goal have not been reflected in improved prophylaxis rates<sup>6</sup>. This is worrying given the fact that the administration of prophylaxis is crucial to preventing hospital-acquired VTE – risk assessment alone is not enough.
27. The RCP therefore emphasises to the Committee that the effective uptake of the 1000 Lives Plus risk assessment tool – focussing on both risk assessment and prophylaxis – must be supported with a national, outcomes-focussed approach to VTE prevention which not only makes risk assessment and prophylaxis compulsory, it also measures health boards' compliance with these requirements.
28. The RCP submits that that Committee should recommend that the Welsh government recognises VTE prevention as a priority for Welsh health boards. We submit that the Committee should recommend that the Welsh government develops an outcomes-focussed approach to preventing VTE across Wales; that the Committee should recognise the impact that the national prioritisation and reporting scheme has had in England in improving risk assessment rates of VTE; and should recommend that the Welsh government adopts its own national approach to VTE prevention. We recommend this go further than England's approach by developing *intelligent targets* for health boards across Wales to provide monthly sample data of a specified size, on both the percentage of adult patients who have received a risk

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<sup>6</sup> Available at [http://apptg.org.uk/?page\\_id=58](http://apptg.org.uk/?page_id=58)

assessment on admission to hospital, **and** the percentage of adult patients who have received the appropriate prophylaxis once they have been identified as being at risk.

### **Additional observations to improve the prevention of hospital-acquired VTE across NHS Wales**

29. The RCP observes that, in general, professional and commissioner awareness about the scale of hospital-acquired VTE is poor. This limits the individual responsibility taken by health care professionals to ensure VTE risk assessments are completed and prophylaxis administered, even if health board policy stipulates that the forms must be completed. We submit that the Committee recommends that steps are taken across Wales to improve education about preventing VTE amongst health professionals across the disciplines, and to ensure VTE prevention is viewed as an essential standard of quality care.
30. The RCP notes that the Hospital-Acquired Thrombosis (HAT) Steering Group, chaired by Dr Simon Noble, and consisting of the Chairs of Thrombosis Committees from the Health Boards, exists to share practice and experience in preventing VTE at the local level across health boards in Wales. We submit that this Group should be supported to continue its work in supporting health care professionals implement high quality VTE prevention at the local level.
31. The RCP recognises the utility of root cause analysis in learning from mistakes and changing behaviour. While time-consuming, root cause analysis of confirmed cases of hospital-acquired VTE can ensure that hospitals and health boards can identify gaps in practice which can be addressed in order to reduce the incidence of hospital-acquired VTE in future. We therefore submit that the Committee should call on health boards to implement a robust system of root cause analysis (RCA) of confirmed cases of hospital-acquired VTE, to identify where mistakes have been made in leading to a preventable case of VTE; should recommend that the HAT Steering Group shares systems for implementing RCA; and should urge that any learnings from cases of hospital-acquired VTE which have been identified as preventable through RCA are fed back to the responsible clinician and forwarded to the health board medical director. Taken in its entirety, this system of an effective RCA can support an improvement in practice to help prevent of hospital-acquired VTE.

### **Lifblood and the RCP's call for the Committee**

32. Further to the evidence included within this submission, the RCP calls on the Committee:
  - a. To recognise the unacceptably high incidence and death rate of avoidable hospital-acquired VTE in Wales;
  - b. To recognise the cost effective nature of preventing hospital-acquired VTE, over and above managing VTE once diagnosed;
  - c. To recognise the comprehensive and up-to-date nature of NICE clinical guideline 92 which sets out best practice in the risk assessment and prevention of hospital-acquired VTE;
  - d. To recommend that all adult patients, on admission to hospital, receive a risk assessment for VTE **and** appropriate prophylaxis in line with NICE clinical guideline 92;

- e. To recommend that the Welsh government recognises VTE prevention as a priority for Welsh health boards;
- f. To recommend that the Welsh government develops an outcomes-focused approach to preventing VTE across Wales; to recognise the impact that the national prioritisation and reporting scheme has had in England in improving risk assessment rates of VTE; to recommend that the Welsh government adopts its own national approach to VTE prevention which goes further than England's approach, by developing *intelligent targets* for health boards across Wales to provide monthly sample data of a specified size, on both the percentage of adult patients who have received a risk assessment on admission to hospitals, **and** the percentage of adult patients who have received the appropriate prophylaxis once they have been identified as being at risk;
- g. To recognise that professional awareness of hospital-acquired VTE remains a challenge; and to recommend that steps are taken across Wales to improve education about preventing VTE amongst health professionals across the disciplines;
- h. To recognise the ongoing clinical leadership provided by the HAT Steering Group, chaired by Dr Simon Noble, which exists to share practice and experience in preventing VTE at the local level across Health Boards in Wales;
- i. To call on health boards to implement a robust system of root cause analysis (RCA) of confirmed cases of hospital-acquired VTE, to identify where mistakes have been made in leading to a preventable case of VTE; to recommend that the HAT Steering Group shares systems for implementing RCA; and to urge that any learnings from cases of hospital-acquired VTE which have been identified as preventable through RCA are fed back to the responsible clinician and forwarded to the health board medical director.

33. The RCP would be more than happy to provide more evidence for the Committee on the matter in writing or verbally during the oral evidence session on 24 May where required.



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