

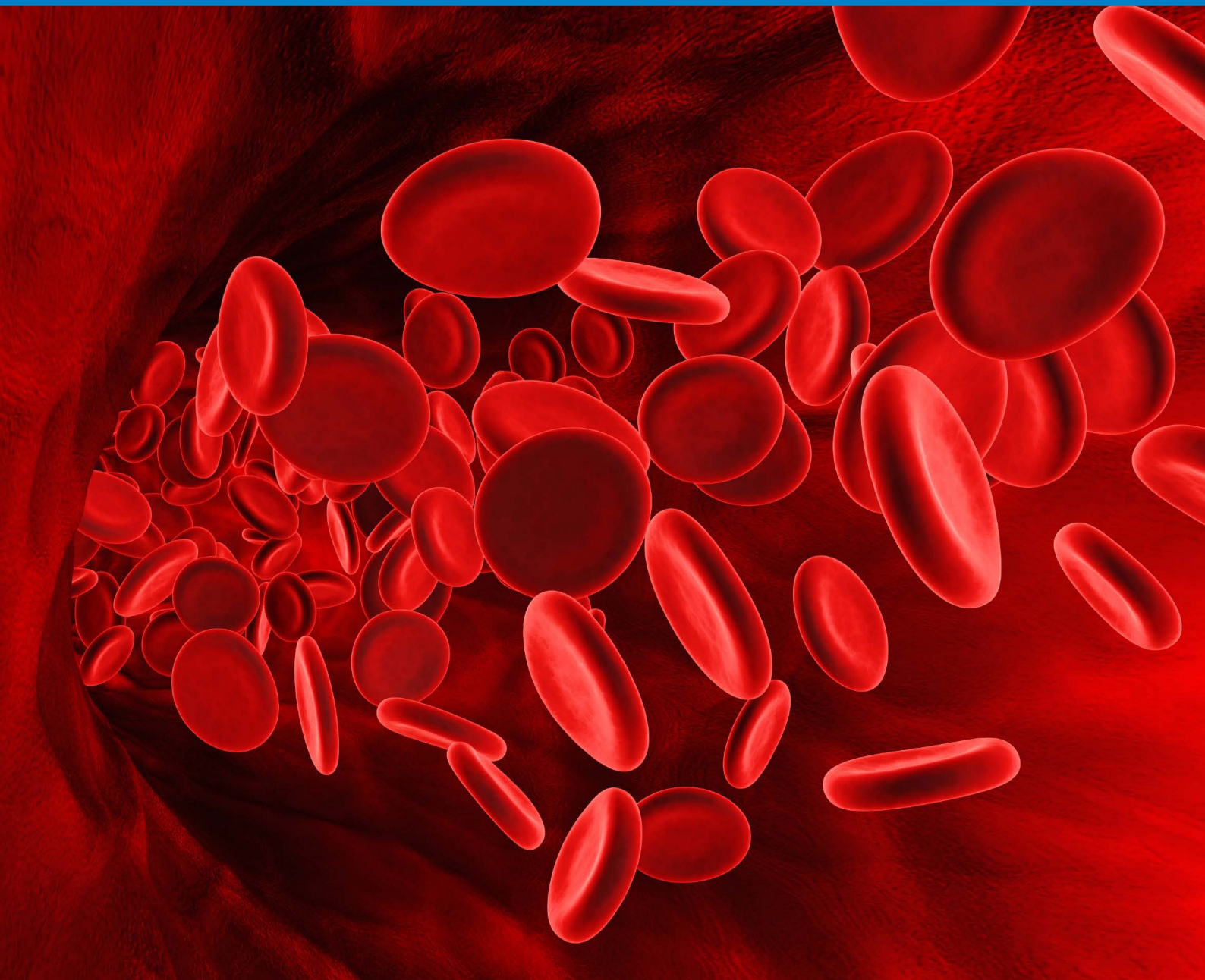


LIFEBLOOD  
**THE**  
**Thrombosis**  
CHARITY

# The Venous Thromboembolism Challenge in Scotland

A Report into VTE Prevention in Scottish Health Boards

Presented at a Meeting in the Scottish Parliament  
Wednesday 17 March 2010  
Hosted by Trish Godman MSP





**THE VENOUS THROMBOEMBOLISM CHALLENGE IN SCOTLAND**  
A Report into VTE Prevention in Scottish Health Boards



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# 1

## FOREWORD

Dear Colleague,

It is estimated that 10,000 people in Scotland are affected each year by hospital acquired venous thromboembolism (VTE) – blood clots acquired from a hospital stay.

VTE is manifested as a deep vein thrombosis (DVT), a blood clot forming in the veins deep in the leg, usually in the calf or thigh, although occasionally DVT can occur in other veins of the body. DVT blood clots can block the flow of blood partially or completely. The majority of deaths from hospital acquired DVT are caused by part of the clot in the deep vein 'breaking off', travelling around the body and eventually blocking an artery in the lungs which is known as a pulmonary embolism. Pulmonary embolism occurs in about 1% of hospital admissions in Scotland, making it the most common preventable cause of death in hospitalised patients<sup>1</sup>. Across England and Wales, VTE has been estimated to cause in excess of 25,000 avoidable deaths a year. This is higher than the total number of deaths from breast cancer, aids and MRSA combined<sup>2</sup>.

The scale of the condition is staggering; its significance to patient safety is obvious. It is therefore entirely unsurprising that VTE prevention has been the focus of the Scottish Intercollegiate Guidelines Network (SIGN), the Chief Medical Officer (CMO), Dr Harry Burns, and NHS Quality Improvement Scotland (NHS QIS), in recent years.

In January 2008, the CMO and Chief Executive of NHS QIS, Sir Graham Teasdale, wrote to all Health Boards requiring them to address, "as a matter of urgency", their VTE prevention policies, including the provision of patient information leaflets on VTE<sup>3</sup>. This followed the finding in a report by the Scottish Public Services Ombudsman that the four relevant specialities across NHS Scotland lacked written, up-to-date protocols and policies on the prevention of VTE. Given the scale of the condition, and the simple and effective nature of prevention – mortality drops from 30% to between 2% and 8% with the appropriate treatment<sup>4</sup> – it is vital that Boards have formal policies in place to address VTE.

In addition to the clinical basis for prioritising VTE prevention and management, there is equally sound economic justification. The National Institute for Health and Clinical Excellence (NICE) recently included VTE prevention in its list of top ten most cost effective interventions<sup>5</sup>. Together, the patient safety aspect and cost effective nature of VTE prevention make it imperative that Health Boards prioritise VTE prevention.

In order to ensure the impetus in addressing VTE is not lost following the efforts of the CMO and NHS QIS throughout 2008, we sent a freedom of information request to all Health Boards in September 2009, in the form of a VTE survey to ascertain levels of best practice.



Trish Godman MSP



Professor Beverley Hunt

Following the NHS QIS 'NHS Board Implementation Follow-Up Report' published in December 2008<sup>6</sup>, which identified that Boards were implementing actions to address failings in VTE policies and patient information leaflets, it was hoped that the results would demonstrate significant progress on the issue. While some results are encouraging indeed, – crucially, all Health Boards bar one stated they have a written policy to risk assess all patients on admission – there are clear outcomes from the survey which identify key areas for improvement.

The failure to produce audit data to illustrate the implementation of VTE risk assessment policies, and the finding that little information is provided to patients on the risks of VTE, suggest that little progress has been made in this area since the letter was sent by the CMO and the Chair of the NHS QIS to all NHS Boards two years ago.

In addition, clear calls for government action in the form of education provision of VTE and mandatory HEAT targets on risk assessment and prophylaxis, make it clear that clinicians recognise the significance of VTE, and require mandation to ensure VTE protocols are fully and consistently implemented across the Board.

With SIGN due to publish its updated Guidelines on VTE prevention and management later this year, Scotland will have a comprehensive and up-to-date national best practice resource. However, this will only benefit patients if the guidelines are implemented across NHS Scotland. It is vital that once these guidelines are produced, Boards update their existing VTE policies using the expertise and leadership from a VTE committee or team within the Board. These must be filtered down to all medical staff.

Lifeblood will be writing to the CMO and NHS QIS to inform them of the results of the survey. We will also be informing the Scottish Government Health Directorate about the two calls for Government assistance in the form of education and targets.

It is only when VTE prevention and management is prioritised throughout NHS Scotland that we can be sure thousands of preventable deaths from VTE are being avoided, and we will see the benefits to patient safety, quality care and cost efficiency that VTE prevention has been proven to deliver.

Yours sincerely,

**Trish Godman MSP**  
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**Professor Beverley Hunt**

Medical Director, Lifeblood:  
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## 2

# EXECUTIVE SUMMARY

Trish Godman MSP wrote to all 14 Health Boards in Scotland in September 2009 asking them to complete a survey on their VTE prevention and management policies under the provisions of the Freedom of Information Act (Scotland) 2002. This placed all Boards under a legal obligation to complete the survey within 20 working days from receipt.

We received responses from all 14 Boards. This makes us confident that our results present an accurate perception of the extent of Board awareness and adoption of best practice. We are also confident that we have presented a full account of the challenges faced, and the support required by Boards to adopt and implement best practice VTE prevention. However, we are aware that a broad survey at Board level, such as this, will never capture an accurate real-time representation of action at the ward level.

### The headline findings are listed below:

- 100% of Boards are aware of the existing VTE SIGN Guidelines, 36 and 62.
- 100% of Boards are aware of the letter sent by the CMO and Chair of the NHS QIS in January 2008 requiring all Boards to address VTE written policies “as a matter of urgency”.
- A fifth of Boards do not have a written VTE policy in place.
- 93% of Boards state they undertake documented risk assessments for all hospitalised inpatients.
- One third of Boards state they carry out audits on the levels of risk assessment and thromboprophylaxis.
- No Board was able to provide data for a Board-wide audit of VTE prevention and thromboprophylaxis for any of the last three years.
- Over one quarter of Health Boards do not provide a formalised education to staff members on risk assessment and thromboprophylaxis procedures.
- The majority of Health Boards are not providing patient information to all hospital inpatients on the risks of VTE on admission.
- 85% of Boards who called for Government action stated that training or assistance in VTE prevention and management would increase consistent levels of VTE risk assessment and administration of thromboprophylaxis.

Where Boards did not respond to a particular question, their answers have been coded ‘did not respond’ (DNR) throughout the report.



## 3 RECOMMENDATIONS

Two clear calls for government action have emerged from the survey.

1. 85% of Boards who called for Government action stated that **training or assistance in VTE prevention and management** would increase consistent levels of VTE risk assessment and administration of thromboprophylaxis. Increasing professional awareness will be crucial to ensuring Board-wide VTE policies are implemented at the ward level. The introduction of a VTE committee within a Board could be crucial to delivering an education programme.
2. 70% of those who called for support asked for the Government to **mandate VTE prevention and management**. A target introduced through the HEAT performance management system would set out a target and measure against which NHS Boards are publicly monitored and evaluated. In addition, the requirement to provide statistics on the progress of a VTE HEAT target would deliver a systematic and thus comparable audit data set, which this survey has made clear is not feasible in the current framework where individual Boards carry out their own audits on VTE in individual formats. A system of national targets has recently been introduced successfully in England through the Commissioning for Quality and Innovation (CQUIN) payment framework, following calls from clinicians themselves for national goals. That clinicians in Scotland are also calling for national VTE targets evidences further the significance of VTE prevention to patient safety.



## 4

# BOARD AWARENESS OF VTE

### SIGN Guidelines

*Table 1: Awareness of SIGN Guideline 36 on the management of VTE, published in March 1999*

Response	Number of Health Boards	% of Health Boards
YES	14	100
NO	0	0
DNR	0	0

*Table 2: Awareness of SIGN Guideline 62 on prophylaxis of VTE, published in October 2002*

Response	Number of Health Boards	% of Health Boards
YES	14	100
NO	0	0
DNR	0	0

*Table 3: Awareness of the requirement from January 2008 by the Chief Medical Officer and Chair of the NHS QIS to address Board VTE prevention policy and patient information*

Response	Number of Health Boards	% of Health Boards
YES	14	100
NO	0	0
DNR	0	0

*Table 4: Awareness of updated SIGN VTE Guideline, published in draft in September 2009, with the final version due for publication towards the end of 2010*

Response	Number of Health Boards	% of Health Boards
YES	14	100
NO	0	0
DNR	0	0

All Health Boards stated they are aware of both existing SIGN VTE Guidelines, 36 and 62. All Health Boards are also aware of the requirement from the CMO, Dr Harry Burns, and Chair of the NHS QIS, Sir Graham Teasdale, that Boards address their written VTE policies and patient information provision. Finally, all Health Boards stated that they are aware that the VTE SIGN Guidelines are currently being updated, with the final version due for publication towards the end of 2010.



## Board VTE Policy

Table 5: Boards with a Written VTE Policy

Response	Number of Health Boards	% of Health Boards
YES	11	79
NO	3	21
DNR	0	0

While eleven Boards do have a written VTE policy in place (79%), three do not.

This is very surprising considering all Boards indicated to the NHS QIS by March 2008 that they were taking action to address the lack of a formal VTE policy. The result is even more surprising given that the NHS QIS demonstrated it was given “reasonable reassurance” by Boards that progress was being made on the promised actions to produce a VTE policy, in its follow-up report from December 2008 on NHS Board implementation on the management of DVT<sup>7</sup>. The results indicate that progress has stagnated since any actions taken by December 2008.

For those Boards that do have a local VTE protocol in place, later answers indicate these are not always compulsory. Later answers also indicate there is significant variation in the quality of these policies relative to up-to-date best practice.

### Named Lead for Disseminating VTE Policy across Board

All Boards, apart from one, were able to identify the individual responsible for disseminating best practice throughout the Board. The majority named their Board Medical Director (50%) and their Head of Clinical Governance (21%).

“NHS Boards should address the requirement for written policies for prevention and management of DVT as a matter of urgency, based on SIGN Guideline 36... and Guideline 62.”

CMO and Chair of NHS QIS in a letter to NHS Boards, January 2008<sup>8</sup>



## 5

# MANAGING VTE RISK

## Management within the Health Board

Table 6: Boards with an established multidisciplinary VTE Committee

Response	Number of Health Boards	% of Health Boards
YES	5	36
NO	9	64
DNR	0	0

Fewer than half of all Health Boards indicated they have in place a multidisciplinary VTE Committee. Of the nine without a Committee, two indicated they have multidisciplinary working groups in place to develop formal local VTE Guidelines. In addition, three indicated that VTE was dealt with via groups with wider remits, including patient safety committees and clinical governance meetings.

The nine that do not have Committees cited various reasons for this. Time / schedule constraints were identified as the largest limiting factor, while others stated that the size of their Board means that specialist groups are not appropriate; thromboprophylaxis is therefore a consultant-led issue. Finally, the lack of clinical leadership was also identified as a reason for not introducing a Committee.

While dedicated VTE committees are not recommended in the existing SIGN VTE Guidelines, evidence from experts to the Health Select Committee Inquiry into the Prevention of VTE in Hospitals in England in 2005 led the Committee to cite the introduction of Committees as their most important recommendation. The advantages to VTE prevention that a Committee can introduce include: promoting best practice; adapting local protocols and providing local audit of thromboprophylactic procedures; and acting as a source of education and training for all staff.<sup>9</sup> Being multidisciplinary in nature enables a Committee to reflect the roles of varying staff in VTE prevention, including doctors, nurses, pharmacists and clinical governance staff. As such, a Committee can make a real difference to the delivery of Board-wide VTE policies. In contrast, the absence of a Committee can mean that there is no joined-up development of updated VTE policy; it can reduce the priority afforded to education within a Board on VTE; and can mean there is no clinical lead overseeing and driving VTE policy implementation.

## Executive Management Involvement

Table 7: Methods of Executive Management Involvement in VTE

Response	Number of Health Boards	% of Health Boards
SAFETY WALK ROUNDS	1	7
ROOT CAUSE ANALYSIS	1	7
SPSP REPORTING	3	21
ADVERSE INCIDENT REPORTING	2	14
MEMBERSHIP OF CLINICAL GOVERNANCE / PATIENT SAFETY GROUP	3	21
NO	2	14
DNR	2	14

The most common way in which executive members of a Board are involved with VTE prevention is through reporting of VTE statistics in peri-operative surgical patients as part of the Scottish Patient Safety Programme (SPSP), and through membership on committees relating to VTE.

While these statistics demonstrate an awareness of VTE by some Boards' management, more can be done to ensure hospital management is involved VTE. The fundamental importance of VTE prevention to patient safety and quality care, as well as cost effectiveness – which has been highlighted by the NHS Confederation – means VTE prevention is of critical importance to driving up a Board's performance in these areas.

In addition, the direct involvement and monitoring of VTE policies would enable resources to be directed towards VTE prevention. This would also ensure implementation support and resources prioritise VTE prevention.

“There is a strong quality and financial imperative for hospitals to prioritise VTE prevention.”

The NHS Confederation, May 2009<sup>10</sup>



## 6

# RISK ASSESSMENT AND PROPHYLAXIS POLICIES

### Risk Assessment Policies

*Table 8: Board Policies to Undertake a Mandatory Documented Risk Assessment*

Response	Number of Health Boards	% of Health Boards
ALL HOSPITAL INPATIENTS	13	93
HIGH RISK SURGICAL AND MEDICAL PATIENTS ONLY	1	7
NONE	0	0
DNR	0	0

Only one Board stated its VTE risk assessment policy targets high risk patients. Thirteen Boards aim to undertake risk assessment for all inpatients, either on an individualised opt-in approach or a group-specific opt-out approach. SIGN Guideline 62 requires risk assessment for all patients admitted to hospital for major trauma, major surgery, or acute medical illnesses. This recommendation is repeated in the draft version of the updated SIGN VTE Guideline<sup>11</sup>.

However, a number of Boards indicated they were unsure about whether these policies are mandatory. Further still, not all Boards were able to confirm that risk assessments would always be documented.

### Responsibility for Undertaking VTE Prevention

Eleven Boards stated they utilise a multidisciplinary approach to VTE prevention, with doctors, pharmacists and nurses splitting the responsibility. This indicates a sensible division in roles, enabling nurses to undertake risk assessment; doctors to prescribe appropriate prophylaxis with follow up by pharmacists; and allowing nurses to complete the process by administering the prophylaxis.

### Electronic Risk Assessment

*Table 9: Boards utilising an electronic risk assessment tool*

Response	Number of Health Boards	% of Health Boards
YES	1	7
NO	12	86
DNR	1	7

Only one Board uses an electronic risk assessment tool; the rest carry out paper form assessments. It is not surprising that an electronic tool is not widely used. Without such a tool being nationally available, it falls on Boards themselves to develop their own. However, an electronic tool can deliver a number of benefits, including time efficiency, prescription calculation and decision support, and accessible patient information.

## Routine Reassessment of Patients

Table 10: Boards which require reassessment for VTE risk

Response	Number of Health Boards	% of Health Boards
YES	6	43
NO	8	57
DNR	0	0

It is very encouraging that almost half of all Health Boards require routine reassessment of inpatients for their VTE risk. This recognises that a patient's risk profile can change during an in-hospital stay. While not stipulated in existing SIGN Guidelines, best practice released in England recently in NICE Guideline 92 requires reassessment after 24 hours for all patients whose inpatient stay is longer than 24 hours. The draft updated SIGN VTE Guideline stipulates reassessment should occur at least every 48 hours.

However, such a policy cannot be delivered until the initial assessment of all inpatients becomes a routine, documented procedure

“The assessment should be repeated regularly and at least every 48 hours.”

The draft updated SIGN VTE Guideline, September 2009<sup>12</sup>



## 7

# METHOD AND AUDIT OF THROMBOPROPHYLAXIS

## Methods of Thromboprophylaxis

Table 11: Methods of thromboprophylaxis in surgical patients

Response	Number of Health Boards	% of Health Boards
PHARMACOLOGICAL PROPHYLAXIS	14	100
INTERMITTENT PNEUMATIC COMPRESSION DEVICES	14	100
ANTI-EMBOLISM STOCKINGS	14	100

Table 12: Methods of thromboprophylaxis in surgical patients

Response	Number of Health Boards	% of Health Boards
PHARMACOLOGICAL PROPHYLAXIS	12	86
INTERMITTENT PNEUMATIC COMPRESSION DEVICES	1	7
ANTI-EMBOLISM STOCKINGS	11	79

## Regular Board-wide Audit of Risk Assessment Policies

Table 13: Boards undertaking regular, Board-wide audits on VTE risk assessment

Response	Number of Health Boards	% of Health Boards
YES	5	36
NO	9	64
DNR	0	0

## Board-wide Audit of Thromboprophylaxis

Table 14: Boards undertaking regular, Board-wide audits on thromboprophylaxis

Response	Number of Health Boards	% of Health Boards
YES	5	36
NO	9	64
DNR	0	0

Five Boards do regularly audit both the uptake of VTE risk assessment and the prescription of appropriate thromboprophylaxis for those patients identified as being at-risk. It is encouraging that Boards are auditing the prescription of appropriate prophylaxis, as this places the emphasis on whether the preventative treatment was indeed administered to at-risk patients.

Of the nine Boards not carrying out regular Board-wide audit, four indicated audits do occur but on a more limited scale. Three stated this occurs in peri-operative surgical patients as part of the SPSP, while the other indicated audit is limited to certain specialities. In addition, two stated audits do occur but on an irregular basis, while another stated this is being trialled in certain clinical areas as part of a patient safety programme.

The lack of a clinical lead to encourage auditing of VTE policy was cited as the key reason by the majority of the nine Boards not undertaking regular Board-wide audits. Equally, a high number also stated that time and resource restraints prevented this, particularly the lack of an electronic system to capture the data.

Regular audits are vital in order to ensure Board-wide policies on VTE are being implemented at the ward-level. Regular, random samples across all specialities and clinical areas will ensure consistency in the prevention of VTE across specialties in the Board.

## **Results of Audits of Risk Assessment Uptake and Prophylaxis**

Despite five Boards stating they undertake regular audits for both the uptake of VTE risk assessment and the administration of appropriate prophylaxis, none were able to provide data on audits which occur across the Board for either VTE risk assessment or prophylaxis.

Of the further four Boards who audit on a smaller scale, only one was able to provide a statistic for audit in one speciality in the year 2009 for risk assessment and prophylaxis. Others indicated data collection had only recently begun and thus no data was yet available.





## 8

# EDUCATION

## Staff Education

*Table 15: Format of Education offered to staff on VTE risk assessment and VTE prophylaxis*

Response	Number of Acute Hospital Trusts	% of Responding Acute Hospital Trusts
QUICK REFERENCE	1	7
ELECTRONIC	2	14
WRITTEN	9	64
NONE	4	29
DNR	1	7

Over one quarter of all Health Boards do not provide a formalised education to staff members on risk assessment and thromboprophylaxis procedures. While nine have developed or are in the process of developing programmes of education, it is not evident to which staff members these are made available to. Moreover, a number of the nine Health Boards with a form of education stated this is not a consistent and formal education procedure, but rather provided on an ad hoc basis.

Time constraints were identified as the key barrier for not offering education to staff members. This is worrying given the significance of the condition for patient safety. As one Board identified, the lack of an overarching policy makes education on the condition difficult.

Low professional awareness of VTE is a barrier to regular risk assessment for VTE. A VTE committee would be critical to ensuring a training programme is developed, resources are available, and staff members receive training in line with up-to-date best practice.

## Patient Education

*Table 16: Information offered to patients on the risks of VTE on admission, by patient type*

Response	Number of Health Boards	% of Health Boards
ALL HOSPITAL INPATIENTS	6	43
HIGH RISK SURGICAL AND / OR MEDICAL PATIENTS ONLY	5	36
NONE	3	21
DNR	0	0

*Table 17: Information offered to patients on the risks of VTE on discharge, by patient type*

Response	Number of Health Boards	% of Health Boards
ALL HOSPITAL INPATIENTS	0	0
HIGH RISK SURGICAL AND / OR MEDICAL PATIENTS ONLY	10	71
NONE	4	29
DNR	0	0

It is incredibly worrying that over half of all Health Boards are not providing counselling to all hospital inpatients on the risk of VTE on admission. More concerning still, not one Board stated it was delivering information to all inpatients on discharge, with more preferring to target high-risk patients instead. Most worrying of all, three Boards are not delivering information at all to any patients on either admission or discharge.

While two Boards stated plans to change this were under review, the failure to provide information to all patients demonstrates Boards have not acted on the need to increase VTE patient information, despite the significance attached to the issue by the CMO and Chair of the NHS QIS. In particular, a number of Boards indicated information would be provided verbally. This is in clear breach of the call by the CMO and Chair of the NHS QIS for “accessible” patient information<sup>13</sup>, and despite the NHS QIS implementation follow up report of December 2008<sup>14</sup> which found that Boards were in the process of gaining feedback on the general VTE leaflet developed by Lifeblood, disseminated across NHS Scotland by the Scottish Government.

Reasons given for not providing information to all inpatients on both admission and discharge included an admission that there was a lack of staff awareness on the scale, risks and prevention of VTE. It is clear therefore that low professional awareness of VTE not only affects the implementation of risk assessment policies, it also affects the delivery of information to patients

“The stock-take also reveals variation in the availability of patient information materials, and this is of particular concern given the specific recommendation on this point in the Ombudsman’s report.”

“We will expect GPs, local DVT service and A&E departments to make people aware of [the Lifeblood leaflet] leaflet.”

CMO and Chair of NHS QIS in a letter to NHS Boards, January 2008<sup>15</sup>



## 9

# VTE METRICS

### **Incidence of VTE developed in hospitalised patients during hospital stay after admission**

### **Incidence of patients admitted with VTE within 28 days of a hospital stay**

The majority of Boards were unable to provide data for both of these data sets. Using the standard morbidity recording based on ICD 10 codes, Boards stated, in the first case, that codes only identified those discharged with VTE diagnoses. Determining whether patients developed the VTE whilst in hospital could only occur via a manual audit of a patient's case notes containing these codes.

In the second case, Boards explained they were unable to provide accurate data since, as with the first data set, discharge codes could not differentiate patients readmitted due to hospital acquired VTE and patient readmissions already diagnosed with VTE.

The inability to respond to these questions illustrates that obtaining reliable and accurate data on both incidence and VTE deaths is a challenge for Boards. The current coding system which does not incorporate a separate code for hospital-acquired VTE makes this task impossible unless detailed case note reviews are undertaken. Similarly, the absence of a system on admission to hospital which checks whether patients presenting with VTE had been an inpatient during the previous 28 days, means it is difficult to track cases of hospital acquired VTE.

## 10 GOVERNMENT ASSISTANCE

*Table 18: Health Board calls for Government assistance to improve VTE prevention*

Response	Number of Health Boards	% of Health Boards
MANDATORY RISK ASSESSMENT AND PROPHYLAXIS (TARGETS)	9	64
VTE REGISTRY	3	21
TRAINING / EDUCATION	11	79
PAYMENT INCENTIVES	2	14
OTHER	0	0
DNR	1	7

85% of Boards who called for Government action stated that training or assistance in VTE prevention and management would increase consistent levels of VTE risk assessment and administration of thromboprophylaxis. It is significant that it clinicians themselves are calling for support to spread understanding and knowledge of the condition amongst medical staff.

This message support findings throughout the report about low professional awareness, as well as the impact this has on both the implementation of VTE policy, and the dissemination of patient information.

In a second call for Government support, 70% of those who called for action asked for the Government to mandate VTE prevention. This recognises the significance of VTE prevention to patient safety, and recognises further that performance targets can drive implementation of risk assessment and thromboprophylaxis at a ward level.

The strength behind these two calls from Boards is emphasised further by the fact that no other methods of support were called for, and that the other suggested options of national support (payment incentives and the introduction of a VTE registry) each received support from less than a quarter of all Boards.



## 11

# CONCLUSION

**Two years since the CMO and Chair of the NHS QIS wrote to all Health Boards about the significance of VTE, we are pleased to see some encouraging results from the survey. Crucially, all Health Boards bar one stated they have a written policy to risk assess all inpatients on admission to hospital for their risk of VTE.**

**However, there are clear outcomes from the survey which identify two key areas for improvement.**

**Firstly**, the majority of Boards were unable to demonstrate, through audit data, that policies to risk assess patients for their risk of VTE are being delivered on the ward level. This was backed by comments from some Health Boards that risk assessment policies were not always compulsory and / or not always documented. The implication of this is that the risk assessment procedure – and therefore the administration of appropriate thromboprophylaxis – may be missed for a number of patients. Given that research in 1995 identified that 56% of surgical patients who died from pulmonary embolism did not receive thromboprophylaxis, this is incredibly worrying<sup>16</sup>.

**Secondly**, it is equally concerning that little information is provided to patients about the risk of VTE. This is despite evidence that Boards were taking action on this in the NHS QIS' December 2008 Follow Up Report into the implementation of DVT management by Health Boards. In their responses, Boards noted that while information might be available, leaflets are not widely used. The CMO and Chair of NHS QIS noted in January 2008 that variation in the availability of patient information materials was of "particular concern"<sup>17</sup>. The results demonstrate that this is still the case two years on.

Whilst we welcome the support given by the CMO, Dr Harry Burns, and the NHS QIS to VTE prevention, this survey makes clear that the challenge to ensure VTE prevention is prioritised throughout NHS Scotland has progressed very little since December 2008. Much more needs to be done by both Health Boards and the Scottish Government, to ensure that best practice – particularly that which will be published in the forthcoming SIGN VTE Guidelines – is consistently and fully implemented. Only then can we save thousands of lives and thousands of pounds from preventing avoidable cases of VTE.

## Two clear calls for government action have emerged from survey.

1. 85% of Boards who called for Government action stated that **training or assistance in VTE prevention and management** would increase consistent levels of VTE risk assessment and administration of thromboprophylaxis. Increasing professional awareness will be crucial to ensuring Board-wide VTE policies are implemented at the ward level. The introduction of a VTE committee within a Board could be crucial to delivering an education programme.
2. 70% of those who called for support asked for the Government to **mandate VTE prevention and management**. A target introduced through the HEAT performance management system would set out a target and measure against which NHS Boards are publicly monitored and evaluated. In addition, the requirement to provide statistics on the progress of a VTE HEAT target would deliver a systematic and thus comparable audit data set, which this survey has made clear is not feasible in the current framework where individual Boards carry out their own audits on VTE in individual formats. A system of national targets has recently been introduced successful in England through the Commissioning for Quality and Innovation (CQUIN) payment framework, following calls from clinicians themselves for national goals. That clinicians in Scotland are also calling for national VTE targets evidences further the significance of VTE prevention to patient safety.



## 12

### FURTHER INFORMATION

**SIGN Guideline 36, 'Antithrombotic Therapy', March 1999**

<http://www.sign.ac.uk/pdf/sign36.pdf>

**SIGN Guideline 62, 'Prophylaxis of Venous Thromboembolism, October 2002**

<http://www.sign.ac.uk/pdf/sign62.pdf>

**Letter from the CMO and Chair of the NHS QIS to Health Boards, January 2008**

<http://www.scottish.parliament.uk/s3/committees/petitions/petitions/submissions/sub-07/PE1056H%20.pdf>

**NHS Quality Improvement Scotland Report into NHS Board Implementation of DVT Management, May 2008**

[http://www.nhshealthquality.org/nhsqis/files/ClinicalGovernance\\_DVT\\_ImplementationReport\\_May08.pdf](http://www.nhshealthquality.org/nhsqis/files/ClinicalGovernance_DVT_ImplementationReport_May08.pdf)

**NHS Quality Improvement Scotland Follow-up Report into NHS Board Implementation of DVT Management, December 2008**

[http://www.nhshealthquality.org/nhsqis/files/ClinicalGovernance\\_DVT\\_Followup\\_ImplementationReport\\_May08.pdf](http://www.nhshealthquality.org/nhsqis/files/ClinicalGovernance_DVT_Followup_ImplementationReport_May08.pdf)

**NHS Quality Improvement Scotland, NHS Board Management of DVT**

[http://www.nhshealthquality.org/nhsqis/controller?p\\_service=Content.show&p\\_applic=CCC&pMenuId=0&pElementId=0&pContentId=6529](http://www.nhshealthquality.org/nhsqis/controller?p_service=Content.show&p_applic=CCC&pMenuId=0&pElementId=0&pContentId=6529)

**NHS 24 Health Library on DVT**

[http://www.nhs24.com/content/default.asp?page=s5\\_4&articleID=122&sectionID=1](http://www.nhs24.com/content/default.asp?page=s5_4&articleID=122&sectionID=1)



# 13

## APPENDIX: SURVEY

### FREEDOM OF INFORMATION REQUEST

**Survey into the Uptake of SIGN Guidelines Numbers 36 and 62,  
in the Prevention and Management of Venous  
Thromboembolism (VTE) in Hospitalised Patients**

September 2009

Please note that the deadline for responses is Friday 16<sup>th</sup> October 2009

**Name:**

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**Position:**

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**NHS Board:**

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**Contact Number:**

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**Email:**

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*An electronic copy of this survey is available on request from Insight Public Affairs*

**Please return the completed survey to:**

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Insight PA  
The Garden House  
6 Eccleston Place  
London  
SW1W 9NE

Tel: 020 7824 1867  
Fax: 020 7824 1851  
Email: [poonam@insightpa.com](mailto:poonam@insightpa.com)



**Awareness**

**1. Is your NHS Trust aware of the following?**

**a) The Chief Medical Officer's (CMO) and Chair of the NHS QIS' recommendation that all Boards develop a VTE prevention policy based on SIGN guidelines**

Yes  No

**b) SIGN Guideline 36 on the management of VTE, published in 1999**

Yes  No

**c) SIGN Guideline 62 on prophylaxis of VTE, published in 2002**

Yes  No

**d) The WHO surgical safety checklist**

Yes  No

**e) The draft SIGN Guideline on VTE Prevention, Investigation and Management, due to be published on 29 September 2009**

Yes  No

**2. Who in your NHS Board is responsible for ensuring clinical staff are made aware of these recommendations and guidelines?**

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Contact: \_\_\_\_\_

3. Does your NHS Board have a formal written VTE prevention policy(s) or protocol?

Yes  No

4. Is your Board aware of England's VTE Exemplar Network as a source of best practice?

Yes  No

### Managing VTE Risk

5. Does your Board have in place a multi-disciplinary thrombosis committee / team responsible for the management of patients with VTE in line with SIGN Guidelines?

Yes  No

6a. If YES, please indicate which staff members are involved in the committee / team:

- Doctors
- Nurses
- Pharmacists
- Diagnosticians
- Other (please specify) \_\_\_\_\_

b. If YES, how often do the committee / team regularly meet?

\_\_\_\_\_

c. If NOT, please indicate why:

- Lack of clinical leadership/champion within trust
- Lack of managerial support
- Time/schedule constraints
- Cost
- Other (please specify) \_\_\_\_\_



7. Please indicate how Board members are involved in VTE prevention and management:

- The board's 'quality dashboard' features the percentage of patients risk assessed for VTE on admission to hospital
- The board's quality dashboard features the percentage of patients receiving appropriate prophylaxis when deemed at risk of VTE
- Undertake safety 'walk-rounds' to ensure that risk-assessment and prophylaxis are being routinely undertaken
- Root cause analysis routinely requested following deaths from VTE after discharge or readmission
- No involvement
- Other (please specify) \_\_\_\_\_

**Risk assessment for thromboprophylaxis**

8. Does your Health Board require hospital Trusts to undertake a documented mandatory risk assessment in line with recommendations of the following:

a) All hospital in-patients

- Yes, using an individualised opt-in approach
- Yes, using a group specific opt-out approach
- No

b) High risk surgical patients only

- Yes, using an individualised opt-in approach
- Yes, using a group specific opt-out approach
- No

**c) High risk medical patients only**

- Yes, using an individualised opt-in approach
- Yes, using a group specific opt-out approach
- No

**d) Out-patients**

- Yes, using an individualised opt-in approach
- Yes, using a group specific opt-out approach
- No

**9. If you answered no to any of the groups mentioned in question 8, what do you see as the perceived difficulties of undertaking a documented mandatory risk assessment of every hospital in-patient?**

- Cost
- Lack of risk-assessment tool
- Lack of clinical leadership / champion within Trust
- Staff training
- Lack of evidence base
- Other (please specify) \_\_\_\_\_

**10. Who is responsible for risk assessing hospitalised patients in hospital Trusts in your Board?**

- Nurse
- Pharmacist
- Doctors
- Anaesthetists
- Other (please specify) \_\_\_\_\_



11. Has your Board developed an electronic risk-assessment tool?

Yes  No

12. Does your Board require Trusts to routinely re-assess hospitalised patients for their risk of VTE (e.g. within 48 hours)?

Yes  No

**Method and Audit of Thromboprophylaxis**

13. Does your Board use any of the following methods of thromboprophylaxis?

a) Pharmacological prophylaxis

Surgical  Medical

b) Intermittent pneumatic compression devices

Surgical  Medical

c) Anti-embolism stockings

Surgical  Medical

d) Other (please specify) \_\_\_\_\_

14. Does your Board regularly audit the following?

a) Uptake of risk-assessment for VTE

Yes  No

If your answer is no, please state why:

\_\_\_\_\_  
\_\_\_\_\_

**b) Levels of prescribing of thromboprophylaxis**

Yes       No

If your answer is no, please state why:

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**15. If your Board audits the uptake of risk assessment for VTE, what percentage of patients were risk assessed on admission, in each year below?**

2008/09

2007/08

2006/07

**16. If your Board audits the level of VTE thromboprophylaxis, what percentage of at-risk patients were prescribed appropriate thromboprophylaxis, in each year below?**

2008/09

2007/08

2006/07





**VTE Education**

**17. Does your Board offer programmes of education / CPD to pharmacists, medical and nursing staff and commissioners?**

**a) Risk assessment of VTE**

- Quick reference e.g. pocket card
- Electronic
- Written
- Not offered
- Other (please specify) \_\_\_\_\_

**b) Thromboprophylaxis**

- Quick reference e.g. pocket card
- Electronic
- Written
- Not offered
- Other (please specify) \_\_\_\_\_

If your answer is none to either of these, please state why:

\_\_\_\_\_  
\_\_\_\_\_

**18. Is your Board aware of the following online educational tools?**

**a) VTE Prevention Pathway from the Map of Medicine**

- Yes       No

**b) e-VTE modules produced by the Department on Health in England**

- Yes       No

**19. Do you offer the following patients information of the risks of VTE on admission:**

- All hospital in-patients
- High risk surgical patients only
- High risk medical patients only
- Out-patients
- None

If you do not offer all hospital in-patients information on admission please state why:

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**20. Do you offer the following patients information of the risks of VTE on discharge:**

- All hospital in-patients
- High risk surgical patients only
- High risk medical patients only
- Out-patients
- None

If you do not offer all hospital in-patients information on discharge please state why:

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**21. If you do offer patients information on admission and/or on discharge, what is your source of information?**

- Board-specific leaflet
- Lifeblood: The Thrombosis Charity
- ACE / Stop the Clot
- Other (please specify) \_\_\_\_\_



**VTE Statistics**

22. How many patients in your Board have suffered VTE whilst a hospital in-patient and after admission, in each year? (ICD-10 Codes I80.1-I80.3, I80.9, I82.9, I26.0, I26.9)

2008/09

2007/08

2006/07

23. How many patients in your Board were readmitted with VTE following an elective hospital admission in each year? (ICD-10 Codes I80.1-I80.3, I80.9, I82.9, I26.0, I26.9)

2008/09

2007/08

2006/07

24. Do you record instances of VTE on a venous thromboembolism registry?

Yes  No

**Government Policy**

**25. What NHS Scotland incentives or assistance would make the risk assessment of all hospital patients more likely to be undertaken?**

- Mandatory risk assessment and prophylaxis / targets
- VTE Registry
- Training / education
- Payment incentives
- Other (please specify) \_\_\_\_\_

**Other Comments**

**26. Please use the space below for any other comments you wish to make:**

**THANK YOU**



## 14

# REFERENCES

<sup>1</sup> Scottish Intercollegiate Guidelines Network (SIGN) (March 1999) Antithrombotic Therapy, National Clinical Guideline 36 available at <http://www.sign.ac.uk/pdf/sign36.pdf>

<sup>2</sup> House of Commons Health Committee (2004-05) The Prevention of Venous Thromboembolism in Hospitalised Patients (HC 99) p7

<sup>3</sup> Available at <http://www.scottish.parliament.uk/s3/committees/petitions/petitionsubmissions/sub-07/PE1056H%20.pdf>

<sup>4</sup> House of Commons Health Committee (2004-05) The Prevention of Venous Thromboembolism in Hospitalised Patients (HC 99) p9

<sup>5</sup> NICE, 2009 Cost Saving Guidance [online] Available at <http://www.nice.org.uk/usingguidance/benefitsofimplementation/costsavingguidance.jsp>

<sup>6</sup> NHS Quality Improvement Scotland (2008) 'Management of Deep Vein Thrombosis, NHS Board Implementation Follow-up report' Available at [http://www.nhshealthquality.org/nhsqis/files/ClinicalGovernance\\_DVT\\_Followup\\_ImplementationReport\\_May08.pdf](http://www.nhshealthquality.org/nhsqis/files/ClinicalGovernance_DVT_Followup_ImplementationReport_May08.pdf)

<sup>7</sup> NHS Quality Improvement Scotland (2008) 'Management of Deep Vein Thrombosis, NHS Board Implementation Follow-up report' Available at [http://www.nhshealthquality.org/nhsqis/files/ClinicalGovernance\\_DVT\\_Followup\\_ImplementationReport\\_May08.pdf](http://www.nhshealthquality.org/nhsqis/files/ClinicalGovernance_DVT_Followup_ImplementationReport_May08.pdf)

<sup>8</sup> Available at <http://www.scottish.parliament.uk/s3/committees/petitions/petitionsubmissions/sub-07/PE1056H%20.pdf>

<sup>9</sup> House of Commons Health Committee (2004-05) The Prevention of Venous Thromboembolism in Hospitalised Patients (HC 99) p26

<sup>10</sup> The NHS Confederation (2009) 'Reducing Deaths from Blood Clots in Hospitals: The Role of Hospital Boards' Available at [http://www.nhsconfed.org/Publications/Documents/Briefing\\_183\\_Reducing\\_deaths\\_from\\_blood\\_clots\\_in\\_hospitals.pdf](http://www.nhsconfed.org/Publications/Documents/Briefing_183_Reducing_deaths_from_blood_clots_in_hospitals.pdf)

<sup>11</sup> Scottish Intercollegiate Guidelines Network (September 2009) 'Prevention and management of venous thromboembolism, national draft meeting, draft 1.8'

<sup>12</sup> Scottish Intercollegiate Guidelines Network (September 2009) 'Prevention and management of venous thromboembolism, national draft meeting, draft 1.8'

<sup>13</sup> Available at <http://www.scottish.parliament.uk/s3/committees/petitions/petitionsubmissions/sub-07/PE1056H%20.pdf>

<sup>14</sup> NHS Quality Improvement Scotland (2008) 'Management of Deep Vein Thrombosis, NHS Board Implementation Follow-up report' Available at [http://www.nhshealthquality.org/nhsqis/files/ClinicalGovernance\\_DVT\\_Followup\\_ImplementationReport\\_May08.pdf](http://www.nhshealthquality.org/nhsqis/files/ClinicalGovernance_DVT_Followup_ImplementationReport_May08.pdf)

<sup>15</sup> Available at <http://www.scottish.parliament.uk/s3/committees/petitions/petitionsubmissions/sub-07/PE1056H%20.pdf>

<sup>16</sup> Gillies TE et al (1996) Br J Surj 'Still Missing the Boat with Fatal Pulmonary Embolism' 83: 1394-5

<sup>17</sup> Available at <http://www.scottish.parliament.uk/s3/committees/petitions/petitionsubmissions/sub-07/PE1056H%20.pdf>

This report was produced by Insight Public Affairs, who are employed by Lifeblood: The Thrombosis Charity.  
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