

**National Assembly for Wales**  
Health and Social Care Committee

One-day inquiry into venous thrombo  
embolism prevention in hospitalised patients  
in Wales

October 2012



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## Health and Social Care Committee

The Committee was established on 22 June 2011 with a remit to examine legislation and hold the Welsh Government to account by scrutinising expenditure, administration and policy matters encompassing: the physical, mental and public health of the people of Wales, including the social care system.

### Current Committee membership



**Mark Drakeford (Chair)**  
Welsh Labour  
Cardiff West



**Mick Antoniw**  
Welsh Labour  
Pontypridd



**Rebecca Evans**  
Welsh Labour  
Mid and West Wales



**Vaughan Gething**  
Welsh Labour  
Cardiff South and Penarth



**William Graham**  
Welsh Conservatives  
South Wales East



**Elin Jones**  
Plaid Cymru  
Ceredigion



**Darren Millar**  
Welsh Conservatives  
Clwyd West



**Lynne Neagle**  
Welsh Labour  
Torfaen



**Lindsay Whittle**  
Plaid Cymru  
South Wales East



**Kirsty Williams**  
Welsh Liberal Democrats  
Brecon and Radnorshire

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## Chair's foreword

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It is a pleasure to provide the foreword to this Report on preventing venous thromboembolism (VTE) in hospitalised patients in Wales.

VTE is a very serious condition. It occurs when a blood clot develops in a vein, dislodges from its original location and blocks a blood vessel. Sometimes, a clot can travel around the body via the circulatory system, eventually blocking the arteries in the lung. This can lead to death.

Developing a fatal condition in a hospital setting is entirely counterintuitive, yet evidence to our inquiry suggests it occurs at a significant rate in the case of VTEs. The number of people who have developed such clots is substantial, and the number of deaths that may have been prevented by improved awareness and treatment was a matter of real concern to us.

Our report endorses the simple argument that we must minimise the number of people suffering hospital acquired clots. Information we received has convinced us that there are practical steps available by which this can be achieved and that these actions are within our reach. We believe that more could and should be done to raise the importance of preventing VTEs, and making both professionals and patients more aware of the severity of the problem. In this report, we have summarised the evidence we heard, drawn together our key conclusions and made recommendations we believe will bring improved outcomes for patients in Wales.

I would like to thank those who gave evidence to the Committee to inform this inquiry, particularly those who attended the day of oral evidence sessions on 24 May. During the sessions we were able to hear from a range of medical professionals, including those whose area of specialism lay in this field and those with other expertise, as well as representatives from health boards and the Welsh Government. We are grateful to them all for their guidance.



**Mark Drakeford AM**  
Chair of the Health and Social Care Committee  
October 2012

## Glossary of terms

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**Thrombosis:** A thrombosis is a blood clot within a blood vessel. It happens when a blood clot forms and blocks a vein or an artery, obstructing or stopping the flow of blood. A blood clot can occur anywhere in the body's bloodstream.

**Venous thrombosis (VT):** A condition in which a blood clot (thrombus) forms in a vein.

**Deep vein thrombosis (DVT):** DVT is a blood clot that occurs in one of the body's "deep veins" in the legs, thighs or pelvis.

**Pulmonary embolism (PE):** A pulmonary embolism is a blood clot that comes away from its original site in the deep veins and travels around the body via the circulatory system, eventually blocking the pulmonary arteries (arteries in the lung).

**Venous thromboembolism (VTE):** The blocking of a blood vessel by a blood clot dislodged from its site of origin. It includes both DVT and PE.

**Hospital acquired thrombosis (HAT):** HAT is defined as any episode of VTE arising in the 90 days following admission to hospital.

**Prophylaxis:** A measure taken for the prevention of a disease.

**Thromboprophylaxis:** A measure taken to prevent the formation of clots (thrombosis). This can be achieved by chemical means (that is, the use of particular medicines) or mechanical (for example the wearing of specialist stockings), or a combination of both.

## **The Committee's conclusions and recommendations**

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**Conclusion 1:** The Committee concluded that adherence to the NICE guidance is essential, and that it should be observed by all clinicians. We believe that a standard system for assessing patients is required, but that risk assessment alone is not sufficient to reduce the incidence of hospital acquired thrombosis (HAT) – clinicians should also be mandated to consider appropriate treatment alongside the risk assessment. Conducting risk assessments on all patients is vital to understanding their risk of developing HAT. However, unless the assessment is combined with the administration of appropriate thromboprophylaxis to prevent HAT, patient care will not be improved.

**Conclusion 2:** The Committee was concerned to learn of the reluctance of certain clinicians to adhere to the NICE guidance. Although we can understand the concerns raised during evidence, we believe that each patient should be assessed individually, and that clinicians should be required to consider prescribing appropriate thromboprophylaxis, whether chemical or mechanical, to reduce the risk of developing hospital acquired thrombosis. The Committee realises that there may be individual cases where clinicians may decide that thromboprophylaxis may not be appropriate; in such instances, clinicians should expect to be held to account for such decisions and be able to defend their judgement.

**Conclusion 3:** It is the Committee's view that the development of hospital acquired thrombosis (HAT) rates at local and national levels is vital to understanding the number of incidences of HAT. By demonstrating this, health boards will be able to better understand the severity of the problem and can then set targets for reducing the rate. A great deal of work has already been done in Wales to agree a working methodology which will allow that to happen. The results of the work now need to be shared rapidly and systematically across the seven health boards.

**Conclusion 4:** The Committee concludes that undertaking a root-cause analysis of all patients presenting a venous thromboembolism while in hospital, or within 3 months of being discharged from hospital, is vital to understanding how many were hospital acquired thromboses (HAT), and whether sufficient steps had been taken to prevent their development. We believe that it is vital that the results of all root-cause analyses are shared across departments, specialties and local health boards to allow clinicians to learn where mistakes have occurred, and implement changes to prevent similar cases in the future. The root-cause analysis is particularly valuable to

clinicians who may not otherwise be aware if patients had developed HAT after leaving their care.

**Conclusion 5:** The Committee believes that health boards should work together to build upon the success already achieved by Betsi Cadwaladr University Health Board and others, to develop a standard system of root-cause analysis for Wales.

**Conclusion 6:** The Committee acknowledges that not all initiatives can be given tier 1 priority status. However, given the evidence we have heard on the number of hospital acquired thromboses (HAT) occurring every year – many of which are preventable – we have concluded that reducing HATs would be a worthwhile priority. We therefore believe that the Welsh Government should actively consider making compliance with the NICE guidance on reducing HAT a tier 1 priority for all health boards. The Committee requests that the Welsh Government reports back to us the outcome of the consideration it gives to including compliance with the NICE guidance as a tier 1 priority and explains the reasons for the conclusion it reaches. This consideration should be given as part of the next review of tier 1 priorities.

**Conclusion 7:** The Committee applauds the success already achieved through the 1000 Lives Plus campaigns and welcomes the re-establishment of the thromboprophylaxis collaborative. We believe, however, that reducing hospital acquired thrombosis (HAT) should now be given formal status to allow a standard system of risk assessment, administering of appropriate thromboprophylaxis and root-cause analysis of HAT to be implemented across Wales to drive further improvements.

**Conclusion 8:** The Committee welcomes the progress made in assessing pregnant women for their risk of developing deep vein thrombosis (DVT). We believe that this progress should be built upon to include the mandatory assessment of pregnant women when admitted to hospital alongside consideration of appropriate thromboprophylaxis, and a root-cause analysis of all cases of hospital acquired thrombosis. This concurs with our earlier conclusion that clinicians should be mandated to risk assess all patients and consider appropriate thromboprophylaxis.

**Conclusion 9:** The Committee believes that more needs to be done to educate both medical professionals and patients about the risk of developing hospital acquired thrombosis (HAT) and how this can be prevented. We believe that awareness of the risks of developing HAT should be raised among all clinicians, across all specialisms. We recognise the important work already being done by dedicated thromboprophylaxis nurses, and

believe that this is an example of the good practice that is happening. We believe that dedicated staff are key to educating colleagues and patients, which will be vital in reducing the incidence of HAT, however it should be the norm that all clinicians, regardless of their specialism, have a general awareness of the risks of developing HAT and the methods by which these risks can be managed.

**Recommendation 1: The Committee recommends that the Welsh Government recognises the importance of reducing the incidence of hospital acquired thrombosis (HAT) in Wales by actively considering whether compliance with the relevant NICE guidance should be included as a tier 1 priority for health boards, against which they will be performance managed. This should be considered alongside revised action through the 1000 Lives campaign. The Committee requests that the Welsh Government reports back to us the outcome of the consideration it gives to including compliance with the NICE guidance as a tier 1 priority and explains the reasons for the conclusion it reaches. This consideration should be given as part of the next review of tier 1 priorities.**

**Recommendation 2: The Committee recommends that a standard procedure be implemented to reduce hospital acquired thrombosis (HAT) in Wales, mandating clinicians to risk assess and to consider prescribing appropriate thromboprophylaxis – mechanical or chemical – for all hospitalised patients.**

**Recommendation 3: The Committee recommends that health boards should develop a standardised method to demonstrate a hospital acquire thrombosis rate for each hospital in Wales and at a national, all-Wales level. We recommend that health boards learn from the work already undertaken by Betsi Cadwaladr University Health Board and others so that a standard methodology can be rapidly developed and implemented across Wales.**

**Recommendation 4: The Committee recommends that a root-cause analysis should be undertaken for each case of venous thromboembolism (VTE) at Welsh hospitals, or for patients presenting VTE within 3 months of being discharged from a Welsh hospital, to establish whether they were acquired as a result of hospital treatment.**

**Recommendation 5: The Committee recommends that the Welsh Government and health boards work together to raise awareness amongst patients and clinicians of the risks of developing hospital acquired thrombosis (HAT). We recommend that this should take the form of a public education campaign to improve understanding of the risks of HAT and the severity of the problem.**

# 1. Introduction

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1. The Health and Social Care Committee agreed on 2 February 2012 to undertake a one-day inquiry on venous thromboembolism (VTE) prevention in hospitalised patients in Wales. VTE is a very serious condition, which occurs when a blood clot develops in a vein, dislodges from its original location and blocks a blood vessel. The condition can be acquired in a community or hospital setting and can be attributed to a number of causes.<sup>1</sup> It is estimated that two thirds of thrombosis deaths are caused by hospital-acquired thrombosis, therefore this was the focus of the Committee's inquiry.<sup>2</sup>

2. The terms of reference for the inquiry were:

To examine the implementation of the National Institute for Clinical Excellence (NICE) guidance and the 1000 Lives Plus risk assessment tool across Wales and its adequacy and effectiveness in preventing venous thromboembolism (VTE) in hospitalised patients.

The Committee also considered the effectiveness and utilisation of chemical and mechanical prophylaxis for VTE and where there are particular problems in the implementation and delivery of VTE prevention actions.

## Method of inquiry

3. A call for written submissions was launched on 13 March 2012 requesting evidence of where progress has been made to implement the NICE guidance and the 1000 Lives Plus assessment tool to date, and where further progress is still needed to improve the prevention of VTE in hospitalised patients.

4. Oral evidence was gathered from a range of stakeholders, including from various specialist medical professions during a day-long session on Thursday 24 May 2012.

5. The Committee would like to thank all those who took the time to respond to this inquiry and assist us with our work. A list of those who gave

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<sup>1</sup> Risk factors for the development of venous thromboembolism include previous surgery trauma, pregnancy, obesity, use of certain medications (such as the contraceptive pill and hormone replacement therapy), immobilisation, cancer, heart failure, certain disorders of the blood and a previous episode of blood clotting in the leg (deep vein thrombosis) or lung (pulmonary embolism).

<sup>2</sup> Lifeblood: The Thrombosis Charity, Public, [Blood clots affect all ages](#) [accessed 23 February 2012]

oral evidence is provided in Annex A to this report; a list of all written submissions is provided in Annex B.

## 2. Background

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6. Venous thromboembolism (VTE), the collective term for deep vein thrombosis (DVT) and pulmonary embolism (PE), is a major cause of death. It is anticipated that the number of cases will increase as a result of the ageing population and increased exposure to risk factors for VTE such as surgery, long distance travel, and increasing levels of obesity.

7. A report by the House of Commons Health Committee in 2005 cited that between 25,000 and 32,000 deaths occur each year in the UK as a result of PE following DVT in hospitalised patients, and that it is the immediate cause of death in 10 per cent of all patients who die in hospital. This figure, in 2005, exceeded the combined total death from breast cancer, AIDS and traffic accidents; it was over 25 times greater than the annual deaths from MRSA (Methicillin-Resistant Staphylococcus Aureus) and more than 5 times the total of all hospital acquired infections.<sup>3</sup> Evidence provided to the Committee by Lifeblood stated that, in 2010, approximately 900 deaths in Wales were either due to or associated with hospital acquired thrombosis. This compared to 47 deaths involving MRSA,<sup>4</sup> 614 from breast cancer<sup>5</sup> and 9 from AIDS<sup>6</sup> in that year. The Committee was told however, that the majority of cases of hospital acquired thrombosis (HAT), as many as 70%, could be avoided if appropriate preventative measures are put in place.<sup>7</sup>

8. In its 2005 report, *The prevention of venous thromboembolism in hospitalised patients*,<sup>8</sup> the House of Commons Health Committee concluded that the implementation of thromboprophylaxis (a measure taken to prevent thrombosis) varied greatly, with its utilisation varying within regions, hospitals and between individual surgeons and physicians. Subsequently, the National Institute for Clinical Excellence (NICE) was commissioned to produce guidelines for all hospitalised patients. The guidance – referred to as CG92 guidance – was published in 2010 and made recommendations on assessing and reducing the risk of VTE in hospitalised patients. This included a

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<sup>3</sup> House of Commons, Health Committee, HC99, [The Prevention of Venous Thromboembolism in Hospitalised Patients](#), February 2005 [accessed 22 February 2012]

<sup>4</sup> Office for National Statistics, [Deaths involving MRSA, England and Wales, 1993-2011](#), 22 August 2012 [access 26 September 2012]

<sup>5</sup> Cancer Research UK, [Breast cancer mortality statistics](#) [accessed 26 September 2012]

<sup>6</sup> Public Health Wales, [HIV, AIDS cases and deaths by year in Wales: 1981-2011](#) [accessed 26 September 2012]

<sup>7</sup> National Assembly for Wales, Health and Social Care Committee [RoP \[para 4\]](#), 24 May 2012

<sup>8</sup> House of Commons, Health Committee, HC99, [The Prevention of Venous Thromboembolism in Hospitalised Patients](#), February 2005 [accessed 22 February 2012]

recommendation that a risk assessment should be done on all hospital admissions.<sup>9</sup>

9. In 2010, the thrombosis charity Lifeblood Wales and the 1000 Lives Plus programme launched a Risk Assessment Tool in the form of a checklist to assist in carrying out a thorough evaluation of a patient's risk of developing a blood clot. This would be used when deciding upon the appropriate form of thromboprophylaxis, should it be required.

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<sup>9</sup> NICE, CG92, [\*Venous thromboembolism: reducing the risk: Reducing the risk of venous thromboembolism \(deep vein thrombosis and pulmonary embolism\) in patients admitted to hospital\*](#), January 2010 [accessed 22 February 2012]

### 3. Diagnosing Venous Thromboembolism (VTE)

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10. Witnesses told the Committee that pulmonary embolism (PE) was a difficult diagnosis to make and are often not diagnosed until post mortem. The Committee heard that the decrease in the number of post mortem examinations carried out in recent years has contributed to the difficulties associated with establishing how many deaths were caused by PE. Dr Alan Willson from Public Health Wales told the Committee that, when the cause of death may not be clear, other diagnoses may be certified instead of PE.<sup>10</sup> As such, the actual number of deaths caused by the condition may currently be under reported.

11. Dr Willson also said that the ‘silent’ nature of hospital acquired thrombosis had resulted in the risk not always being apparent to clinicians and that the extent of the problem could only be estimated. He told the Committee:

“There needs to be stronger evidence. The other thing that may come into play here is the difference in where risk is experienced. For an orthopaedic surgeon, a very immediate risk is the risk of bleeding during a hospital stay. That will be very apparent and it will cause obvious problems. The risk of silent thrombosis is one that follows hospital stay, by and large, and, with the low PM [post mortem] rate, we may have a very diminished appreciation of it.”<sup>11</sup>

#### **Risk assessment**

##### ***NICE guidance***

12. The CG92 guidance published by NICE in 2010 recommended that a risk assessment should be done on all hospital admissions to evaluate each patient’s risk of developing venous thromboembolism. The Committee heard oral evidence from Professor Beverley Hunt, Professor of Thrombosis & Haemostasis at King’s College London and Consultant in the Departments of Haematology, Pathology and Lupus at Guy's & St Thomas' NHS Foundation Trust, and who sat on the guideline-writing committee. She told us that the guideline-writing committee was made up of professionals with a multidisciplinary background, and that the orthopaedic section was written

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<sup>10</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 286\]](#), 24 May 2012

<sup>11</sup> Ibid, [RoP \[para 266\]](#), 24 May 2012

by five orthopaedic surgeons at the behest of the British Orthopaedic Association.<sup>12</sup>

13. The Committee heard that implementation of the NICE guidance had been variable, with limited success in some areas. We were told that, although the NICE guidance is in place across Wales, there is no formal monitoring to ensure that it is adhered to. Professor Hunt, who was representing the Royal College of Physicians (RCP), told the Committee:

“It is not the role of NICE to ensure that they [the guidelines] are implemented in every hospital. That is one of the problems with NICE. It is trying to develop ways of helping to deliver the guidelines but it cannot be responsible for ensuring that an individual doctor in an individual ward delivers those guidelines. That is a problem.”<sup>13</sup>

14. The Committee was also told that the NICE guidance was complicated and, as such, difficult to implement. Dr Grant Robinson, Medical Director at Aneurin Bevan Health Board, said that the guidance:

“...sometimes require a little bit of thought and a bit of local tweaking to get them working. I think that I would put hospital-associated thrombosis in that category.”<sup>14</sup>

15. The Committee heard from Dr Simon Noble, Medical Director for Lifeblood Wales, that carrying out a risk assessment on each patient on admission, whether they be admitted as an emergency or for elective procedure, should be made standard practice across all wards and hospitals in Wales.<sup>15</sup> This, we were told, would be key in reducing the incidence of HAT among patients.

### ***All Wales Risk Assessment Tool***

16. In January 2010 the thrombosis charity Lifeblood Wales and 1000 Lives Plus jointly launched a 12 month programme which encouraged hospitals across Wales to use a simple checklist when risk assessing patients for HAT. The All Wales Risk Assessment Tool enabled teams to carry out a thorough evaluation of a patient’s risk of developing a blood clot by looking at a number of issues, including a family history of DVT, obesity etc. Once assessed, the appropriate form of thromboprophylaxis could be decided

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<sup>12</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 144 & 154\]](#), 24 May 2012

<sup>13</sup> Ibid, [RoP \[para 146\]](#), 24 May 2012

<sup>14</sup> Ibid, [RoP \[para 379\]](#), 24 May 2012

<sup>15</sup> Ibid, [RoP \[para 45\]](#), 24 May 2012

upon. This joint programme ended in March 2011 with the responsibility for continuation passing to the local health boards.

17. In their written evidence, Lifeblood said that risk assessment for VTE alone was not enough to prevent hospital acquired VTE. Dr Simon Noble told the Committee that patients should be assessed not only for their risk of developing a blood clot, but also for their risk of bleeding should blood-thinning medication or anti-embolism stockings be administered as preventative measures.<sup>16</sup> Dr Raza Alikhan, representing the UK Thromboprophylaxis Forum, agreed that the risk assessment was vital, including the risk of bleeding as a result of surgery, in order to weigh up the risks and benefits to each individual patient.<sup>17</sup>

18. Dr Noble did not believe that such an assessment would prove an onerous task and that it could be completed as part of the standard clerking when a patient is admitted to hospital.<sup>18</sup>

### ***Hospital acquired thrombosis prevention strategy (HAT)***

19. The written evidence from Lifeblood highlighted the challenges faced in implementing a sustainable HAT prevention programme, including the complexity of HAT, the challenge of getting buy-in from all stakeholders, patient awareness and empowerment, and prioritisation of risk assessment. Dr Simon Noble explained the complexities of preventing HATs to the Committee:

“Prevention of hospital-acquired thrombosis is more complex, because there are several steps required. One needs to assess whether the patient is at risk, not only of thrombosis, but as a result of the preventative measures we provide. We need to assess whether the person would be at risk if we were to give them ant-embolism stockings or blood-thinning medicines. The question is where you do that in a patient journey. You not only have to carry out that assessment, but implement it and check on it. So it is a several-step process. It is not something you do once and forget about. It is more complex than that.”<sup>19</sup>

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<sup>16</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 9\]](#), 24 May 2012

<sup>17</sup> Ibid, [RoP \[para 17\]](#), 24 May 2012

<sup>18</sup> Ibid, [RoP \[para 45\]](#), 24 May 2012

<sup>19</sup> Ibid, [RoP \[para 10\]](#), 24 May 2012

20. The evidence from Lifeblood and the UK Thromboprophylaxis Forum stated that, although significant progress had been made by 1000 Lives Plus in advancing HAT prevention, progress had slowed. In their view it would be appropriate for a standardised HAT prevention strategy and monitoring programme to be implemented. Dr Noble told the Committee:

“We would like to see a standardised system whereby every health board assesses and, where appropriate, provides preventative measures to every adult patient who comes into hospital.”<sup>20</sup>

21. Lisa Turnbull, representing Royal College of Nursing (RCN) Wales, told the Committee that practice was inconsistent not only across Wales, but within hospitals:

“Performance, assessment, prevention and the actions following assessments are very inconsistent across Wales, even within the same hospital. That is the important point; they are not only inconsistent on an LHB basis, they are inconsistent in the same hospital.”<sup>21</sup>

### ***Risk assessment and treatment***

22. The Committee heard that a system of incentivising risk assessments had been introduced in hospitals in England, and that this had been successful in increasing the number of patients assessed to over 90%. Witnesses were eager, however, to stress that risk assessment alone was not enough to reduce the number of hospital acquired thromboses, if appropriate thromboprophylaxis was not administered following assessment. Dr Noble queried the value of setting targets for risk assessment only:

“You have to be careful with the targets that you set, or you will miss the point. It is possible – and I hear this anecdotally from colleagues in England - that if the only incentive is based around risk assessment, you will have fantastic figures demonstrating that bits of paper are filled in, but no objective evidence that you have improved patient care. So, first and foremost, if there were a recommendation to mandate risk assessment, it needs to be tied in implicitly with Plus-appropriate prophylaxis.”<sup>22</sup>

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<sup>20</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 5\]](#), 24 May 2012

<sup>21</sup> Ibid, [RoP \[para 69\]](#), 24 May 2012

<sup>22</sup> Ibid, [RoP \[para 32\]](#), 24 May 2012

23. This view was shared by Dr Raza Alikhan, who told the Committee: “risk assessment on its own is not enough. It has to be incorporated with appropriate prophylaxis.”<sup>23</sup> Professor Beverley Hunt believed that it would be more beneficial to check whether patients were receiving appropriate thromboprophylaxis rather than measuring risk assessments alone. She told the Committee:

“The other problem with the English system, which I would not repeat again if one had an opportunity, is that we are measuring risk assessment, so we are saying that a person is at risk but, actually what we need to check is that they get appropriate thromboprophylaxis according to the NICE guidelines. That it the point that I would audit; that would be a far more intelligent way to go.”<sup>24</sup>

24. It was made clear to the Committee that mandating risk assessment alone did not necessarily ensure that action would be taken to administer the appropriate thromboprophylaxis, and therefore reduce the risk of HAT. A number of witnesses told the Committee that the implementation of treatment was the key instrument to avoiding HAT. Considering appropriate thromboprophylaxis *in conjunction with* risk assessment, we were told, is essential to reducing the risk of HAT.

25. There was agreement amongst witnesses that administering blood-thinning thromboprophylaxis to patients would increase the risk of bleeding following surgery, however there was disagreement as to whether bleeding or developing VTE posed the greater risk. It was clear to the Committee that opinion amongst medical professionals was divided depending upon their particular specialism.

26. Dr Alikhan accepted that there were genuine concerns in relation to bleeding, but believed that they were far lower than the risks of developing a blood clot or possibly dying or experiencing chronic problems as a result of a blood clot.<sup>25</sup> Dr Alikhan told us that the rate of major a bleed following elective hip and knee orthopaedic surgery was between 1-2% compared to the rate of deep vein thrombosis following elective knee surgery, which was 50%. He added that the risk of bleeding reduced the longer you waited

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<sup>23</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 50\]](#), 24 May 2012

<sup>24</sup> Ibid, [RoP \[para 163\]](#), 24 May 2012

<sup>25</sup> Ibid, [RoP \[para 17\]](#), 24 May 2012

following surgery, so believed that 6 to 8 hours after surgery would be a safe time to administer blood-thinning drugs. He told the Committee:

“The risk of bleeding is less the longer you wait after surgery. If you wait six to eight hours or longer and sees your patient after surgery and are happy that they have stopped bleeding, you should start to try to prevent a blood clot.”

27. There was disagreement between the Welsh Orthopaedic Society (WOS) and other witnesses as to whether the NICE guidelines should be adhered to. The WOS told the Committee that some of its members disagreed with the NICE guidelines, and therefore did not follow them. Dr Andrew Davies, representing the WOS, was clear that, from the orthopaedic perspective, the risk of bleeding following surgery was a greater concern than the risk of developing VTE. He told the Committee:

“I would not seek for a moment to say that venous thrombo-embolism is not a problem – it is – but the medications that we have to try to prevent it also have their issues, which can cause problems of their own. It is one thing to mandate that the patient is assessed and then make a decision about their relative risk of bleeding and thrombosis...It is entirely another issue to mandate that every patient must have these drugs, because, as I said at the beginning, the treatment must not be worse than the disease.”<sup>26</sup>

28. Dr Davies went on to say that his opinion was based on seeing his patients on the operating table with problems that had been caused by bleeding. He said:

“...you only have to see one surgical disaster to sway your opinion about what you are going to do for your next patient, regardless of guidelines from elsewhere. If you have done it in your practice and it does not work, you are unlikely to do it again.”<sup>27</sup>

29. He summarised, “We see what we see and we are influenced by it.”<sup>28</sup>

30. Other witnesses stressed the importance of each individual patient being assessed for their risk of developing a blood clot. They were concerned that a blanket decision by orthopaedic surgeons not to administer

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<sup>26</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 153\]](#), 24 May 2012

<sup>27</sup> Ibid, [RoP \[para 156\]](#), 24 May 2012

<sup>28</sup> Ibid, [RoP \[para 169\]](#), 24 May 2012

thromboprophylaxis as a matter of course would be dangerous, and that each patient should be considered on a case by case basis. Dr Alikhan told the Committee:

“You have to weigh up the risks and benefits to an individual, not to an entire cohort of patients having a joint replaced.”<sup>29</sup>

31. Dr Davies told the Committee that the WOS were strongly opposed to the mandation of prescribing drugs in order to prevent VTE, but agreed that other measures could and should be considered, including mechanical means. He said:

“There are different ways of preventing a thrombosis. The vast majority of thromboses occur in a lower limb. There are mechanical ways of addressing the lower limb in isolation, while the rest of the body is left alone...The thing about mechanical prophylaxis is that is targeted at the area that is most at risk, which is the lower limbs in a patient who is not moving around very much.”<sup>30</sup>

32. He went on to say:

“I do not deny that that should be on the agenda and that we should be mandated to consider it...However, we honestly and truly feel that we can do more harm than good by being mandated to treat every patient with a drug.”<sup>31</sup>

**Conclusion 1: The Committee concluded that adherence to the NICE guidance is essential, and that it should be observed by all clinicians. We believe that a standard system for assessing patients is required, but that risk assessment alone is not sufficient to reduce the incidence of hospital acquired thrombosis (HAT) – clinicians should also be mandated to consider appropriate treatment alongside the risk assessment. Conducting risk assessments on all patients is vital to understanding their risk of developing HAT. However, unless the assessment is combined with the administration of appropriate thromboprophylaxis to prevent HAT, patient care will not be improved.**

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<sup>29</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 17\]](#), 24 May 2012

<sup>30</sup> Ibid, [RoP \[para 198\]](#), 24 May 2012

<sup>31</sup> Ibid, [RoP \[para 199-200\]](#), 24 May 2012

**Conclusion 2: The Committee was concerned to learn of the reluctance of certain clinicians to adhere to the NICE guidance. Although we can understand the concerns raised during evidence, we believe that each patient should be assessed individually, and that clinicians should be required to consider prescribing appropriate thromboprophylaxis, whether chemical or mechanical, to reduce the risk of developing hospital acquired thrombosis. The Committee realises that there may be individual cases where clinicians may decide that thromboprophylaxis may not be appropriate; in such instances, clinicians should expect to be held to account for such decisions and be able to defend their judgement.**

### **Hospital acquired thrombosis rate**

33. Witnesses believed that achieving an overall hospital acquired thrombosis rate (HAT rate) for each hospital and for Wales was crucial in understanding the true extent of the problem. Dr Simon Noble told the Committee:

“If we were able to demonstrate a hospital-acquired thrombosis rate for every health board, and therefore a national hospital-acquired thrombosis rate, that would first give us hard figures on the scope of the problem. Those who say that it is not a big problem will have data either to confirm or refute that. It will allow us to analyse every case of hospital-acquired thrombosis and see how many were treated appropriately and how many could have been prevented but were missed.”<sup>32</sup>

He stressed the importance of a HAT rate in learning lessons in treating patients with venous thromboembolism:

“The evidence that we see is that, of all the hospital-acquired thrombosis that occur, 50% were not managed appropriately and, therefore, something could be done differently.”<sup>33</sup>

34. Witnesses told the Committee that a HAT rate was also important in measuring the progress in reducing the number of cases. Dr Alan Willson told the Committee:

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<sup>32</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 33\]](#), 24 May 2012

<sup>33</sup> Ibid, [RoP \[para 34\]](#), 24 May 2012

“The long-term ambition is to have that HAT rate, to know what the rate is, and to know that it has come down to an acceptable, unavoidable minimum.”<sup>34</sup>

35. The written evidence from Aneurin Bevan Health Board stressed the importance of a HAT rate in assessing the progress of improvement, and also in engaging differing specialities as it enabled clinical staff to know the incidence of HAT post-discharge for their patients.<sup>35</sup>

36. In their written evidence, 1000 Lives Plus / Public Health Wales said that achieving an all-Wales HAT rate was one of the ambitions of the 1000 Lives Plus programme, and that they were working with organisations to develop an outcome measure for a HAT rate. They said that six out of eight organisations already had a process in place for achieving this and that the other two were working towards it.<sup>36</sup>

37. The Committee were told of the progress made by Betsi Cadwaladr University (BCU) Health Board in developing a method to demonstrate its HAT rate. They had been able to demonstrate this by cross-referencing patients in the deep vein thrombosis clinic with radiology databases. Dr Brian Tehan, Assistant Medical Director at BCU Health Board, told the Committee that this process was labour intensive but it had allowed the health board to realise its HAT rate.<sup>37</sup> In their written evidence, Cardiff and Vale University Health Board called for a standardised methodology for producing a HAT rate and for the sharing of outcomes and best practice more freely between health boards.<sup>38</sup>

38. Dr Chris Jones, Medical Director NHS Wales, agreed that a national HAT rate would be desirable in measuring the outcomes of care, but his own experience led him to believe that it would be complex to achieve. He said:

“My experience when I was trying to implement this in ABM [Abertawe Bro Morgannwg] nearly three years ago was that it was complex, because people turn up in different places, in different circumstances and in different geographical locations. The diagnosis of thrombosis

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<sup>34</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 293\]](#), 24 May 2012

<sup>35</sup> National Assembly for Wales, Health and Social Care Committee, [Consultation Response VTE 4 – Aneurin Bevan Health Board](#)

<sup>36</sup> National Assembly for Wales, Health and Social Care Committee, [Consultation Response VTE 7 – Public Health Wales / 1000 Lives Plus](#)

<sup>37</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 397\]](#), 24 May 2012

<sup>38</sup> National Assembly for Wales, Health and Social Care Committee, [Consultation Response VTE 11 – Cardiff and Vale University Health Board](#)

is made by different means, for some, it is post mortem, and we do not routinely get all that fed back into the system.”<sup>39</sup>

**Conclusion 3: It is the Committee’s view that the development of hospital acquired thrombosis (HAT) rates at local and national levels is vital to understanding the number of incidences of HAT. By demonstrating this, health boards will be able to better understand the severity of the problem and can then set targets for reducing the rate. A great deal of work has already been done in Wales to agree a working methodology which will allow that to happen. The results of the work now need to be shared rapidly and systematically across the seven health boards.**

### ***Root-cause analysis of hospital acquired thrombosis***

39. The Committee heard from several witnesses, including Dr Simon Noble<sup>40</sup> and Dr Alan Willson,<sup>41</sup> that a root-cause analysis of each case of hospital acquired thrombosis (HAT) was vital to assessing whether the most appropriate path had been taken. They also argued that this was important for future learning. Dr Raza Alikhan referred to work being undertaken in some health boards to gauge whether patients who presented with blood clots in the leg and the lung had been in hospital in the previous 90 days, had been risk assessed and whether the blood clots could have been prevented.<sup>42</sup>

40. There was agreement amongst witnesses that undertaking a root-cause analysis would be a significant step forward in achieving an accurate picture of how each case of venous thromboembolism (VTE) had been caused and, for those who had been admitted to hospital recently, whether preventative steps could have been taken. Dr Andrew Davies agreed with other witnesses that the root-cause analysis approach would be a sensible course of action to follow.<sup>43</sup>

41. Claims were made to the Committee that doctors who specialised in orthopaedic surgery may not be aware of the true extent of HAT as most blood clots occurred after patients had been discharged from hospital, and

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<sup>39</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 441\]](#), 24 May 2012

<sup>40</sup> Ibid, [RoP \[para 11\]](#), 24 May 2012

<sup>41</sup> Ibid, [RoP \[para 270\]](#), 24 May 2012

<sup>42</sup> Ibid, [RoP \[para 37\]](#), 24 May 2012

<sup>43</sup> Ibid, [RoP \[para 210-213\]](#), 24 May 2012

therefore they presented themselves to GPs, not to the surgeon who had performed the original surgery. Professor Beverley Hunt told the Committee:

“If you look at the average orthopaedic patient, they come in and go home within five days, but the average deep-vein thrombosis occurs on day seven, when they are out of hospital. The average pulmonary embolism happens on day 21. We have a problem occurring in the community, although the hospital causes it. The people who are doing the operations do not see it, so they do not perceive that there is a problem.”<sup>44</sup>

42. Dr Brian Tehan went on to tell the Committee that the work undertaken by Betsi Cadwaladr University Health Board had revealed that HAT often occurred once a patient had left the care of their original doctor:

“What we identified is that, if somebody has a hospital-acquired thrombosis, it is usually within three months of the hospital stay, that is, within 84 or 85 days. The problem is, given the turnover in the system, those people do not generally fall back into the care of the clinician of origin. That is a big problem. What we found is happening is that general practitioners would identify it in the community and refer in to our DVT clinic.”<sup>45</sup>

**Conclusion 4: The Committee concludes that undertaking a root-cause analysis of all patients presenting a venous thromboembolism while in hospital, or within 3 months of being discharged from hospital, is vital to understanding how many were hospital acquired thromboses (HAT), and whether sufficient steps had been taken to prevent their development. We believe that it is vital that the results of all root-cause analyses are shared across departments, specialties and local health boards to allow clinicians to learn where mistakes have occurred, and implement changes to prevent similar cases in the future. The root-cause analysis is particularly valuable to clinicians who may not otherwise be aware if patients had developed HAT after leaving their care.**

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<sup>44</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 149\]](#), 24 May 2012

<sup>45</sup> Ibid, [RoP \[para 395\]](#), 24 May 2012

**Conclusion 5: The Committee believes that health boards should work together to build upon the success already achieved by Betsi Cadwaladr University Health Board and others, to develop a standard system of root-cause analysis for Wales.**

## Tier 1

43. The Welsh Government's annual *Delivery Framework for the NHS in Wales* sets out the core delivery targets which are arranged into two groups:

- Tier 1 - which are subject to very close attention by Health Boards, Trusts and the Welsh Government (through national monitoring). These are the key priorities where immediate improvement is necessary or where performance at defined target levels must be sustained.
- Tier 2 - are equally important but are either subject to longer term delivery trajectories or will be subject to regular local (and more periodic national) monitoring.

44. Within each tier priority area, of which there are currently 10 tier 1 priority areas, there are a number of deliverable targets identified, such as a further reduction in Clostridium difficile (C-difficile) infections and MRSA against agreed local targets.

45. The Committee heard that performance measures set by the Welsh Government were not always aligned with initiatives such as the 1000 Lives programme to reduce hospital acquired thrombosis (HAT). Lisa Turnbull told the Committee:

“Sometimes, what the professionals and clinically led organisations such as 1000 Lives Plus are coming forward with, which are excellent initiatives with evidence of impact, is not aligned with the performance indicators set by the Welsh Government for LHBs.”<sup>46</sup>

46. Witnesses believed that the variability in compliance with the NICE guidelines could be improved by making it a tier 1 priority for health boards to reduce mortality from blood clots. They believed that this, coupled with the ‘bottom-up’ approach of the 1000 Lives Plus programme, was crucial to improving the buy-in from clinicians on the importance of reducing deaths resulting from blood clots.

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<sup>46</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 98\]](#), 24 May 2012

47. Dr Raza Alikhan told the Committee that reducing strokes and cardiac mortality were currently tier 1 priorities for health boards and that, while health boards were aware of the importance of reducing blood clots, they were not required to demonstrate how this was being measured. He argued that this meant uptake from clinicians varied.<sup>47</sup>

48. There was also agreement amongst the health board medical directors who gave oral evidence to the Committee that the success of the 1000 Lives programme - combined with making it a tier 1 priority to measure performance in reducing HATs - would be helpful. Dr Grant Robinson referred to the success achieved by other initiatives when they had been awarded tier 1 priority. He told the Committee:

“The great success that we have had recently with things like stroke and Clostridium difficile infections has shown that that approach of top-down pressure by getting something in the tier 1 priorities and bottom-up support from Alan and his 1000 Lives team is a potent combination. We are confident that it is a good way to tackle these kinds of problems.”<sup>48</sup>

49. Dr Bruce Ferguson, Medical Director at Abertawe Bro Morgannwg University Health Board, went on to explain that priority 1 status added organisational focus and accelerated the process of implementing initiatives:

“The use of tier 1 priorities sometimes gets a little more organisational focus into the system. I do not think that everything can be a tier 1 priority. The NHS can only cope with a limited number of tier 1 priorities at any one time, but, in some senses, a tier 1 priority does something to accelerate the process.”<sup>49</sup>

50. Despite this, Dr Andrew Davies told the Committee that he believed that some of his orthopaedic colleagues would continue to resist the mandatory treatment of individuals even if it were made a tier 1 priority. In response to a question by the Committee as to whether he believed that his fellow orthopaedic clinicians would continue to resist mandatory treatment to prevent HAT, he said:

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<sup>47</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 14\]](#), 24 May 2012

<sup>48</sup> Ibid, [RoP \[para 326\]](#), 24 May 2012

<sup>49</sup> Ibid, [RoP \[para 337\]](#), 24 May 2012

“The blunt answer to your question as to whether I perceive that some of my colleagues will be resistant to this is probably ‘yes’.”<sup>50</sup>

51. Dr Chris Jones told the Committee that there was clear evidence to support the use of appropriate thromboprophylaxis to avoid HAT and that the Welsh Government had been aware of the need to reduce incidence for several years. He said that there had been a commitment to use thromboprophylaxis to reduce HAT as part of the 1000 Lives campaign between 2008 and 2010, which had proved valuable, and that there had been an expectation at that point that it would be made core business against which health boards would be performance managed. Despite this, he acknowledged that the issue did not receive the amount of focus expected. He said:

“We realised last year that...we did not have quite the focus on the topic that we might have had. I asked for an update last August [2011]. That showed us that we did not know on an all-Wales basis exactly how we were doing... As a result of that, we have decided to re-establish the thromboprophylaxis collaborative through the 1000 Lives Plus national programme. That is now back in place to wind up the focus on the area through the use of improvement methodology in local clinical services.”<sup>51</sup>

52. Given the variability in the implementation of the NICE guidance across Wales and the views of other witnesses, the Committee was surprised to hear that Dr Jones did not concur that including the reduction of incidence of HAT as a tier 1 priority would significantly improve compliance with the guidance or result in fewer HATs. He told the Committee:

“Clinicians do not generally do what they are told to do unless they believe that that is what they should be doing. So, the top-down approach does not resonate for clinicians. Also, I do not think that they understand what tier 1 is - it is a performance framework, in a sense, between the executive teams. So, I do not think that that would have great relevance to front-line clinicians. Even if it was a tier 1 measure, it would not alter in any way the nature of the work that had to be done, which is the local and engagement work with colleagues within clinical services.”<sup>52</sup>

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<sup>50</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 183\]](#), 24 May 2012

<sup>51</sup> Ibid, [RoP \[para 412\]](#), 24 May 2012

<sup>52</sup> Ibid, [RoP \[para 417\]](#), 24 May 2012

53. Dr Jones stated that the *Quality Delivery Plan for the NHS in Wales*, published in May 2012, commits the NHS in Wales to produce a set of quality metrics, which will have to be reported to the public, health boards and Welsh Government, and that it:

“...will be a quality-driven process that, to some extent, will run in parallel with the tier 1 delivery framework. It is a means of getting consistent measurement and monitoring in all organisations.”<sup>53</sup>

54. Dr Jones went on to say that he did not believe that it was necessary to make the reduction of HAT a tier 1 priority as health boards should already be working to achieve this:

“It is mandated in a sense, because it has been previously in the annual operating framework, and it has been part of the 1000 Lives campaign, and now that 1000 Lives Plus national programme. So, the Welsh Government expects this....I do not see why the health boards do not regard it as a mandatory action.”<sup>54</sup>

55. Despite his initial reservations, Dr Jones conceded that:

“There is no doubt in my mind that thromboprophylaxis would not appear out of place as a tier 1 principle.”<sup>55</sup>

**Conclusion 6: The Committee acknowledges that not all initiatives can be given tier 1 priority status. However, given the evidence we have heard on the number of hospital acquired thromboses (HAT) occurring every year – many of which are preventable – we have concluded that reducing HATs would be a worthwhile priority. We therefore believe that the Welsh Government should actively consider making compliance with the NICE guidance on reducing HAT a tier 1 priority for all health boards. The Committee requests that the Welsh Government reports back to us the outcome of the consideration it gives to including compliance with the NICE guidance as a tier 1 priority and explains the reasons for the conclusion it reaches. This consideration should be given as part of the next review of tier 1 priorities.**

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<sup>53</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 422\]](#), 24 May 2012

<sup>54</sup> Ibid, [RoP \[para 418\]](#), 24 May 2012

<sup>55</sup> Ibid, [RoP \[para 439\]](#), 24 May 2012

**Conclusion 7: The Committee applauds the success already achieved through the 1000 Lives Plus campaigns and welcomes the re-establishment of the thromboprophylaxis collaborative. We believe, however, that reducing hospital acquired thrombosis (HAT) should now be given formal status to allow a standard system of risk assessment, administering of appropriate thromboprophylaxis and root-cause analysis of HAT to be implemented across Wales to drive further improvements.**

### **Risk assessment during pregnancy**

56. The Royal College of Obstetricians and Gynaecologists (RCOG) published an evidence based green-top guideline<sup>56</sup> *Thrombosis and Embolism during Pregnancy and the Puerperium, Reducing the Risk (Green-top 37a)*<sup>57</sup> in September 2009 which recommended all women should undergo a documented assessment of risk factors for venous thromboembolism (VTE) in early pregnancy. The guidance also recommends that this assessment should be repeated if the woman is admitted to hospital for any reason or develops other intercurrent problems.

57. Mr Nigel Davies, representing the RCOG, explained to the Committee how risk assessment for VTE should be carried out during pregnancy, in line with the RCOG guideline. He said that women would initially be assessed as part of a wider assessment by their midwife before 12 weeks of pregnancy and then re-assessed:

- if a woman was admitted to hospital during pregnancy;
- when admitted during labour; or
- at the time of delivery.

He added that initial assessments were carried out well as they formed part of a wider assessment, but that an adequate audit tool and suitable education for midwives was required to know whether the second part of the assessment was routinely undertaken.<sup>58</sup>

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<sup>56</sup> The Royal College of Obstetricians and Gynaecologists (RCOG) produces a series of clinical Green-top Guidelines. Their principal aim is to improve the effectiveness and efficiency of clinical care through the identification of good clinical practice and desired clinical outcomes. The guidelines provide recommendations derived from researched clinical questions that are directly pertinent to clinical practice in obstetrics and gynaecology.

<sup>57</sup> Royal College of Obstetricians and Gynaecologists, [\*Thrombosis and Embolism during Pregnancy and the Puerperium, Reducing the Risk \(Green-top 37a\)\*](#), September 2009 [accessed 28 August 2012]

<sup>58</sup> National Assembly for Wales, Health and Social Care Committee, [\*RoP \[para 88-89\]\*](#), 24 May 2012

58. Mr Davies concluded that an audit was necessary to ensure that assessments were conducted properly and that root-cause analysis was important in assessing whether pregnant women who had developed deep vein thrombosis (DVT) had been assessed and given appropriate treatment when admitted to hospital. He said:

“This needs an audit and some form of mandating to ensure that it is used properly. The question is how do you do that. Do you mandate the use of the assessment tool? Alternatively, do you work backwards by looking at those women in Wales who have been affected – because there will be 30 to 40 of them each year who will have had a DVT or a pulmonary embolism related to their pregnancy – and do a retrospective audit, examining whether they had the right treatment? I believe that that would be a better way of doing it than mandating the use of the assessment tool. All the latter approach would do is ensure that the assessment tool is used; it would not ensure that the right treatment is given for the right length of time.”<sup>59</sup>

**Conclusion 8: The Committee welcomes the progress made in assessing pregnant women for their risk of developing deep vein thrombosis (DVT). We believe that this progress should be built upon to include the mandatory assessment of pregnant women when admitted to hospital alongside consideration of appropriate thromboprophylaxis, and a root-cause analysis of all cases of hospital acquired thrombosis. This concurs with our earlier conclusion that clinicians should be mandated to risk assess all patients and consider appropriate thromboprophylaxis.**

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<sup>59</sup> Ibid, [RoP \[para 90\]](#), 24 May 2012

## 4. Training and awareness

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59. The Committee heard that improving training and raising awareness of the risks of developing hospital acquired thrombosis (HAT) among both clinicians and patients were crucial to reducing the number of cases. In their written evidence the Royal College of Physicians state:

“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.”<sup>60</sup>

60. Dr Raza Alikhan said that it was necessary to build on the improvement already made in raising awareness among midwives and mothers-to-be, and to learn from that success to spread the message more widely.<sup>61</sup>

### Professional awareness

61. The UK Thromboprophylaxis Forum believed that raising awareness and, in particular, venous thromboembolism (VTE) education were paramount. In their written evidence they said that, since 2011, formal teaching on VTE had been established as part of Year 2 and Final Year medical undergraduate teaching at Cardiff University Medical School. They also said that nursing staff were central to VTE risk assessment and the administration of thromboprophylaxis to prevent HAT, and that it was therefore important to establish formal VTE teaching as part of the School of Nursing studies in Wales.<sup>62</sup>

62. Professor Beverley Hunt told the Committee that there was a problem with medical education. She said that the British Society of Haematology had surveyed the teaching of haematology in medical schools, and had found huge variation across undergraduate education. She told the Committee:

“The problem is always education...So, we have health professionals coming through into practice and the responsibility lies with

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<sup>60</sup> National Assembly for Wales, Health and Social Care Committee, [Consultation Response VTE 13 – Royal College of Physicians](#)

<sup>61</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 30\]](#), 24 May 2012

<sup>62</sup> National Assembly for Wales, Health and Social Care Committee, [Consultation Response VTE 15 – UK Thromboprophylaxis Forum](#)

postgraduate authorities and local education, and it does not always deliver.”<sup>63</sup>

63. The Forum went on to say that the establishment of VTE clinical nurse specialists to provide VTE leadership, promote VTE risk assessment and appropriate thromboprophylaxis, educate medical and nursing colleagues and contribute to audit of HAT were key to reducing HAT.

64. In their written evidence Betsi Cadwaladr University (BCU) Health Board referred to a part-time thromboprophylaxis nurse employed to assist with prophylaxis work. They said that, following a package of focused training and support, the risk assessment completion rate rose from 22 per cent to 85 per cent. However, funding difficulties meant that the continuation of this post was uncertain. They added that the post was valuable, with much of the ground made having been lost when the post was initially cut.<sup>64</sup>

65. Dr Simon Noble also referred to the value of the dedicated nurse at BCU, saying that there was evidence of a reduction in risk-assessment rates and an increase in the HAT rate when that nurse had been on leave. He believed that would continue to be the case unless risk-assessment and appropriate treatment to prevent VTE was standardised and became custom practice across Wales.<sup>65</sup>

66. Despite the important role of nurses, the Committee were also told that nursing staff were unable to prescribe prophylactic measures, either anti-embolism stockings or pharmacological measures. Dr Noble said that while nurses could raise the issue, ultimately the responsibility lay with consultants.<sup>66</sup> Dr Raza Alikhan concurred that whilst nurses were able to raise awareness of the risks for individual patients, and many were very good at doing so, unless they had independent prescribing status, there was a limit as to how much they could do.<sup>67</sup>

### **Patient awareness**

67. Witnesses referred to the success of campaigns highlighting the importance of hand washing, and told the Committee that a similar approach

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<sup>63</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 148\]](#), 24 May 2012

<sup>64</sup> National Assembly for Wales, Health and Social Care Committee, *Consultation Response VTE 12 – Betsi Cadwaladr University Health Board*

<sup>65</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 23\]](#), 24 May 2012

<sup>66</sup> *Ibid*, [RoP \[para 45\]](#), 24 May 2012

<sup>67</sup> *Ibid*, [RoP \[para 49\]](#), 24 May 2012

was needed to empower patients to understand the importance of preventing blood clots. Nicola Davies-Job from the RCN stressed the importance of education campaigns in empowering patients to be able to challenge healthcare professionals. She told the Committee:

“I am thinking of the 1000 Lives hand-washing campaign, where patients can challenge people on whether they have washed their hands. In the same way, if patients were aware of their risk of VTE, they could challenge the nurse by saying, ‘This happened to my mum/dad, it is really important and I am really anxious about it, so please can you escalate it?’.”<sup>68</sup>

68. Lisa Turnbull, also from the RCN, added that people were aware of the risks of developing DVT on long haul flights, however awareness of developing a blood clots whilst in hospital was much lower. She believed that this needed to improve so that people could discuss their anxieties with health professionals.<sup>69</sup>

**Conclusion 9: The Committee believes that more needs to be done to educate both medical professionals and patients about the risk of developing hospital acquired thrombosis (HAT) and how this can be prevented. We believe that awareness of the risks of developing HAT should be raised among all clinicians, across all specialisms. We recognise the important work already being done by dedicated thromboprophylaxis nurses, and believe that this is an example of the good practice that is happening. We believe that dedicated staff are key to educating colleagues and patients, which will be vital in reducing the incidence of HAT, however it should be the norm that all clinicians, regardless of their specialism, have a general awareness of the risks of developing HAT and the methods by which these risks can be managed.**

**Recommendation 1: The Committee recommends that the Welsh Government recognises the importance of reducing the incidence of hospital acquired thrombosis (HAT) in Wales by actively considering whether compliance with the relevant NICE guidance should be included as a tier 1 priority for health boards, against which they will be performance managed. This should be considered alongside revised action through the 1000 Lives campaign. The Committee requests that**

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<sup>68</sup> National Assembly for Wales, Health and Social Care Committee, [RoP \[para 106\]](#), 24 May 2012

<sup>69</sup> Ibid, [RoP \[para 135\]](#), 24 May 2012

**the Welsh Government reports back to us the outcome of the consideration it gives to including compliance with the NICE guidance as a tier 1 priority and explains the reasons for the conclusion it reaches. This consideration should be given as part of the next review of tier 1 priorities.**

**Recommendation 2: The Committee recommends that a standard procedure be implemented to reduce hospital acquired thrombosis (HAT) in Wales, mandating clinicians to risk assess and to consider prescribing appropriate thromboprophylaxis – mechanical or chemical – for all hospitalised patients.**

**Recommendation 3: The Committee recommends that health boards should develop a standardised method to demonstrate a hospital acquire thrombosis rate for each hospital in Wales and at a national, all-Wales level. We recommend that health boards learn from the work already undertaken by Betsi Cadwaladr University Health Board and others so that a standard methodology can be rapidly developed and implemented across Wales.**

**Recommendation 4: The Committee recommends that a root-cause analysis should be undertaken for each case of venous thromboembolism (VTE) at Welsh hospitals, or for patients presenting VTE within 3 months of being discharged from a Welsh hospital, to establish whether they were acquired as a result of hospital treatment.**

**Recommendation 5: The Committee recommends that the Welsh Government and health boards work together to raise awareness amongst patients and clinicians of the risks of developing hospital acquired thrombosis (HAT). We recommend that this should take the form of a public education campaign to improve understanding of the risks of HAT and the severity of the problem.**

## Annex A – Witnesses

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The following witnesses provided oral evidence to the Committee on 24 May 2012. Transcripts of the oral evidence sessions can be viewed, in full, at: <http://www.senedd.assemblywales.org/mglIssueHistoryHome.aspx?lId=1309>

<b>24 MAY 2012</b>	
<b>Session 1</b>	
Dr Simon Noble	Lifeblood
Dr Raza Alikhan	UK Thromboprophylaxis Forum
<b>Session 2</b>	
Mr Nigel Davies	Royal College of Obstetricians and Gynaecologists
Lisa Turnbull	RCN Wales
Nicola Davies-Job	RCN Wales
<b>Session 3</b>	
Prof Beverly Hunt	Royal College of Physicians
Dr Andrew Davies	Welsh Orthopaedic Society
<b>Session 4</b>	
Dr Alan Willson	1000 Lives Plus / Public Health Wales
<b>Session 5</b>	
Dr Grant Robinson	Aneurin Bevan Health Board
Dr Bruce Ferguson	Abertawe Bro Morgannwg University Health Board
Dr Brian Tehan	Betsi Cadwaladr University Health Board

<b>Session 6</b>	
Dr Chris Jones	Welsh Government
Grant Duncan	Welsh Government

## Annex B – Written evidence

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The following people and organisations provided written evidence to the Committee. All written evidence can be viewed in full at <http://www.senedd.assemblywales.org/mgIssueHistoryHome.aspx?Ild=3197>

<i>Organisation</i>	<i>Reference</i>
Chartered Society of Physiotherapy	VTE 1
Abertawe Bro Morgannwg University Health Board	VTE 2
Velindre Cancer Centre	VTE 3
Aneurin Bevan Health Board	VTE 4
RCN Wales	VTE 5
Bayer	VTE 6
1000 Lives + / Public Health Wales	VTE 7
Lifeblood	VTE 8
Royal Pharmaceutical Society	VTE 9
Cwm Tâf Health Board	VTE 10
Cardiff and Vale University Health Board	VTE 11
Betsi Cadwaladr University Health Board	VTE 12
Royal College of Physicians	VTE 13
Hywel Dda Health Board	VTE 14
UK Thromboprophylaxis Forum	VTE 15
Welsh Orthopaedic Society	VTE 16