Health and Social Care Committee
One-day inquiry into venous thrombo-embolism prevention
VTE 7 – Public Health Wales & 1000 Lives Plus

1000 Lives Plus and Public Health Wales

Response to the National Assembly for Wales Health and Social Care Committee: call for evidence on venous thrombo-embolism prevention

This paper is in response to the request for written evidence by the Health and Social Care Committee undertaking the one-day inquiry into venous thrombo-embolism prevention in hospitalised patients in Wales.

The paper focuses upon the national approach taken by 1000 Lives Plus and the actions of the central team. It should be read in conjunction with the individual Health Board and Trust reports.

The following areas are covered in the paper:

1. An introduction to 1000 Lives Plus
2. The case for preventing VTE
3. Reducing Surgical Complications - Preventing VTE
4. Hospital Acquired Thrombosis – mini-collaborative
5. Moving forward
6. Transforming Maternity Care and Preventing VTE
7. Next Steps
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1. An introduction to1000 Lives Plus

1000 Lives Plus is the national improvement programme, supporting organisations and individuals, to deliver the highest quality and safest healthcare for the people of Wales.
It focuses on three key areas to spread and embed quality improvement:

i. Establishing a common and consistent approach to improvement across all NHS organisations in Wales.
ii. Developing a public and patient-driven NHS.
iii. Establishing a commitment to developing capacity and capability among the NHS workforce.

1000 Lives Plus takes forward the standardised improvement methodology, use of evidence-based interventions and measurement for improvement introduced by the 1000 Lives Campaign and Intelligent Targets work.

Data are used to focus improvement efforts – using measurement for learning and not for judgement, accountability or comparison. Data in the Campaign and within the national programme is collected by organisations and for their own improvement use. Process measures enable organisations to control variation and ensure reliability in their processes. Outcome measures reflect the impact on the patient or system and show the end result of an organisation's improvement work.

The role of 1000 Lives Plus is to support organisations with their improvements, not to performance manage their work. Data is not collected or aggregated by 1000 Lives Plus.

2. The case for preventing VTE

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1000 Lives Plus reviewed the evidence for preventing VTE and found a substantial case for evidence-based improvement through small tests of change.

In 2005, the Health Select Committee identified that, in the UK:

- Pulmonary Embolism (PE) following Deep Vein Thrombosis (DVT) in hospitalised patients causes between 25,000 and 32,000 deaths each year.
- PE following DVT is the immediate cause of death in 10% of all patients who die in hospital.
- The total cost (direct and indirect) to the UK of managing VTE is estimated at £640 million.
- VTE in hospitalised patients is largely preventable through the use of thromboprophylaxis during the hospital stay of the patient and, in some cases, continuing after discharge.[1]

In late 2009, Sir Liam Donaldson and John Smith (MP) reaffirmed the priority of preventing hospital acquired thrombosis (HAT), in their foreword in Venous Thromboembolism Prevention (DH 2009) they stated:

> "In 2007 there were 16,670 recorded deaths in England and Wales where Pulmonary Embolism and Deep Vein Thrombosis (VTE) were mentioned on the death certificate (Office of National Statistics).
>
> However, the overall death rate from VTE in hospital and the community is likely to be significantly higher since the condition is often clinically silent and deaths are not being identified due to a reduction in post-mortem examinations.
>
> The emerging picture of death and acute and chronic disability (such as chronic venous insufficiency, venous leg ulcers and pulmonary hypertension) leaves no room for complacency when low-cost effective preventative treatments are available.
>
> VTE prevention is, above all, about saving lives and reducing long term ill health. This is common and often avoidable. We have long known of safe, effective and straightforward methods of prevention and will continue to work towards widespread recognition that VTE prevention is one of the most important new patient safety issues …."[2]

A report by NCEPOD (2009) explored the care of patients who died within four days of admission to NHS and private hospitals in the UK, and found that only 55% of patients admitted under a surgeon and 38% of patients admitted under a physician received venous thromboembolism prophylaxis.[3]

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[1] *House of Commons (2005). House of Commons Health Committee Report on the Prevention of Venous Thromboembolism in Hospitalised Patients.*
[2] *Department of Health, Venous Thromboembolism Prevention: A Patient Safety Priority King's Thrombosis Centre, 2-3.*
[3] *NCEPOD (2009). Caring to the End? A review of the care of patients who died in hospital within four days.*

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3. Reducing Surgical Complications - Preventing VTE

The 1000 Lives Campaign was launched in April 2008 and took forward a number of actions from the *Healthcare Quality Improvement Plan: Designed to Deliver 2006* (QuIP). It aimed to save an additional 1000 lives and to avoid up to 50,000 episodes of harm in Welsh healthcare in two years.

The evidence-based content areas were developed by clinicians in Wales, based upon an appraisal by the former NPHS of the evidence base relating to 12 proposed Institute for Health Improvement interventions. Four interventions were prioritised based on their effectiveness and transferability to NHS Wales, including 'Preventing and reducing surgical complications,' and an additional two areas were added.

Within the Reducing Surgical Complications area, three drivers for improvement were identified, including 'Prevent Perioperative Cardiovascular Events.' One of the interventions within this driver was to 'Identify patients at risks, and provide appropriate DVT prophylaxis.'

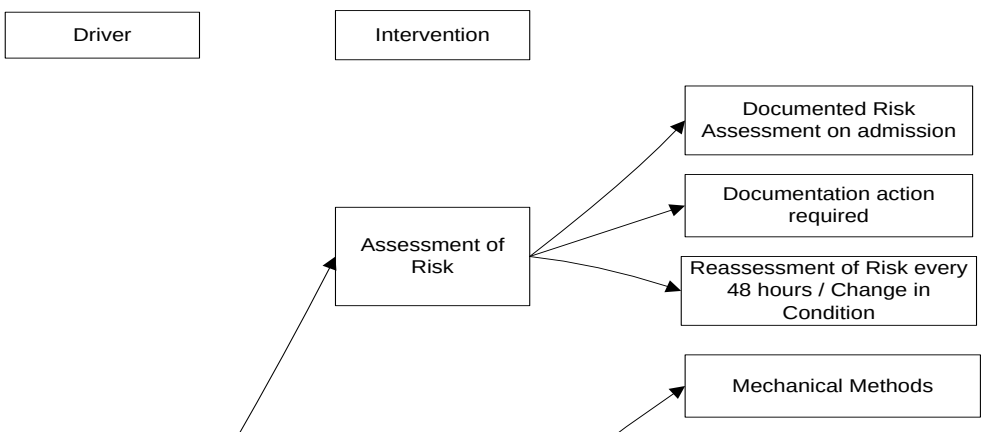
An evidence-based How to Guide was developed for Reducing Surgical Complications and eight Health Boards and Trusts participated in a national mini-collaborative, sharing ideas and knowledge, sharing methodologies for change, implementing proven concepts, and measuring change.

The area proved a challenge to many organisations and it was also delayed by the late introduction of an All Wales Risk Assessment document. All organisations signed up to this area but only three were posting data on risk assessment. Implementation concentrated on pre-assessment clinics for elective surgery was yet to spread to ward areas where patients were admitted directly. Only two organisations were posting data for VTE prophylaxis at this point in time.

4. Hospital Acquired Thrombosis – mini-collaborative

In January 2010, following a review of the evidence available regarding VTE and progress made by organisations, it was agreed to deliver a 12 month mini-collaborative specifically around VTE prevention.

A driver diagram and How to Guide specifically on the area were produced by Dr Simon Noble, Peggy Edwards and Dr Jonathon Gray. Special input was received from Lifeblood: The Thrombosis Charity, the All Party Parliamentary Thrombosis Group, the Department of Health VTE Implementation programme and organisations who contributed case studies.



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In this mini-collaborative, the mission of the 1000 Lives Campaign and participating health care organisations was to work together to develop a systematic approach to VTE prevention to reduce avoidable death and harm in hospital patients in Wales. This was to be achieved through the collaborative by the implementation of the All Wales Risk Assessments and appropriate prophylaxis for all in-patients in Wales. Organisations initially focused on a patient population, for example orthopaedic patients; a specific ward; or a specific team.

Goals for participating organisations included:

- Reduce incidents of HAT by 50% in 18 months
- Achieve 100% compliance with risk assessment and prophylactic treatment of in patients by December 2010
- Raise awareness among professionals and the public of HAT prevention and the All Wales Risk Assessment
- Engage with all healthcare professionals, senior managers and doctors in implementing HAT risk assessment in local hospitals and in assessing compliance across the NHS
- Develop better measures and feedback mechanisms on HAT in hospitals
- Raise awareness of HAT prevention in primary care and the community in general.

Organisations completed monthly reports (via the IHI extranet) and considered ways of gathering data monthly such as using risk assessment forms filled out as patients are admitted or follow up inspection of notes.

Process measures:

- Percentage of surgical/ medical patients who have a documented assessment for the risk of developing a HAT.
- Percent of in-patient whose risk assessment is actioned appropriately
- Percent of in-patients whose risk assessment is reviewed at 48 hours and documented

Outcome measures:

- Number of surgical/ medical patients who experience a HAT.

Schedule for the Learning Sessions:

Learning Session 1: 12 January 2010
Learning Session 2: 8 June 2010
Learning Session 3: 16 December 2010

5. <u>Moving forward</u>

At the end of the collaborative in March 2011, there were notable achievements across Health Boards and Trusts. The development of five All Wales Risk Assessment Tools triggered organisations to adopt the all Wales tool, adapt the tool or develop their own bespoke tools. Without the initial prompt for the All Wales Thrombosis Group this work would have been significantly delayed. The work had concentrated upon the

implementation of the risk assessment only. The re-assessment of patients on an ongoing basis and ensuring the appropriateness of prophylaxis was identified as a challenge which required support in the service.

The inclusion of the process measure of % patients risk assessed in the Annual Operating Framework from October 2010 helped focus organisations. However, the challenge of the various measures that require data collection across the whole programme was acknowledged as significant for the front line teams.

It was proposed that the Maternity collaborative would continue the work for pregnant women, and Enhanced Recovery After Surgery (ERAS) would pick up surgical patients prophylaxis.

Following the publicity from NHS England in the summer of 2011, the Medical Director for NHS Wales requested a progress update and this was provided by 1000 Lives Plus.

With the ending of the collaborative in March 2011, responsibility for the continuation of the work was passed back to Health Boards and Trusts. 1000 Lives Plus team were approached in the June of 2011 by VTE leads who were concerned at the lack of progress. It was agreed that 1000 Lives Plus would convene a one-off learning event in September 2011 to assess the situation. The event successfully brought together the VTE leads for the seven Health Boards plus Velindre NHS Trust. It was billed as making VTE assessment part of the 'day job'. Three key issues of measurement, clinical engagement and senior management support emerged from the discussions on the day.

The creation of a HAT rate was made the aim for the following six months based on a methodology pioneered in Betsi Cadwaladr University Health Board. It was also agreed that 1000 Lives Plus would arrange a follow-up meeting in March 2012 to assess progress. At that meeting five of the seven Health Boards plus Velindre were able to demonstrate a HAT rate and provide data showing their current performance. The other two Health Boards left with plans in place to do likewise. There is still work to do to evidence the comprehensive nature of risk assessment.

6. Transforming Maternity Care and Preventing VTE

The overall aim of the Transforming Maternity Services Mini-Collaborative is to improve the experience and outcomes for women, babies and their families within Maternity Services. One of the drivers in achieving this aim is to reduce the risk of venous thrombo-embolism in pregnancy. It was launched on 3 March 2011 at the Royal Colleges of Midwives (RCM) annual conference.

The Transforming Maternity Services Mini-Collaborative brings together experts, clinicians and managers to effect change at the bedside (from the 'bottom up'). It is endorsed by Welsh Government, all Health Boards in Wales, the RCM, and Obstetricians and Gynaecologists (RCOG) in Wales.

Learning events have been scheduled as follows to support the all Wales mini-collaborative:

- Learning Session 1: 4 March 2011

- Learning Session 2: 7 June 2011
- Learning Session 3: 24 November 2012
- Learning Session 4: 29 May 2012

Following consultation with experts from within Wales and the relevant endorsement committees, consensus has been reached to enable universal VTE risk assessment to be implemented throughout Wales, with two Exemplar DVT Risk Assessment templates – one relating to the initial 'Booking' visit, which is to be included in the National Hand-Held records and one relating to Antenatal Admission and the puerperium (postnatal period). This has been a significant achievement for the mini-collaborative in a short period of time and is now allowing maternity units to proceed with implementation of the bundles.

All Health boards within Wales are currently implementing these risk assessments following localisation and agreement within their scrutiny committees.

Work is also underway to implement a combined antenatal booking and admission risk assessment within gynaecological wards alongside the general DVT risk assessment.

7. Next Steps

1000 Lives Plus is working with organisations to develop an outcome measure for the HAT rate. Six out of eight organisations already have a process in place for achieving this and the other two are working on towards this.

Achieving an all-Wales HAT rate is one of the programme's short term ambitions. This is an important step forward and Wales may be the first country to achieve a national HAT rate.

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Appendix 1: Timeline

Date	Event
April 2008	1000 Lives Plus Campaign launched and one of the interventions within the Surgical Complications content area is to 'Identify patients at risks, and provide appropriate DVT prophylaxis.'
December 2009	A review of the evidence available regarding VTE and progress made by organisations, led to agreement to deliver a 12 month mini-collaborative specifically around VTE prevention.
12 January 2010	VTE Learning Session 1: 'Count me in to stop the clots.' The session focused upon progress to date, reviewed the improvement methodology and worked with LifeBlood to present the case for change.
8 June 2010	VTE Learning Session 2. This session focused upon risk assessment and prophylaxis, with organisations sharing their feed back on the early stages of testing documentation.
16 December 2010	VTE Learning Session 3. This session focused upon spreading and embedding changes however organisations were still the use of forms in surgical areas, with delays in implementation.
3 March 2011	Maternity mini-collaborative launched at the annual RCM conference by the Chief Nursing Officer for Wales.
4 March 2011	Maternity mini-collaborative Learning Session 1
30 March 2011	VTE mini-collaborative formally ends and responsibility for the continued implementation of the work is passed to organisations.
7 June 2011	Maternity mini-collaborative Learning Session 2
24 November 2011	Maternity mini-collaborative Learning Session 3
July 2011	Report on progress with VTE prevention submitted to Medical Director for NHS Wales.
8 September 2011	Learning event for Health Boards and Trusts at the request of organisations, focussing on making VTE assessment part of the day job.
15 March 2012	Follow up learning event to assess progress by Health Boards and Trusts in demonstrating a HAT rate and provide data showing their current performance.
29 May 2012	Maternity mini-collaborative Learning Session 4