Hospital Associated Thrombosis: the current situation in England

Roopen Arya

National Thrombosis Week 2016
Adaptive strategy and consistent pressure ensures VTE prevention is made a clinical priority.
Global Leaders

- Comprehensive, systematic approach to VTE prevention
- First national initiative of its kind anywhere in the world
- Key patient safety initiative:
  - Delivering high quality care
  - Reducing avoidable harm
  - Safer hospitals
- Leadership from NHS, parliamentarians, charities....
- Striving for excellence – VTE Exemplar Centres Network
- Delivered change, enabled by levers provided by NHS
System measures 1

- National clinical guidelines for reducing risk in hospitalised patients
- National risk assessment tool
- Mandatory collection of VTE risk assessment data
- VTE was the first national CQUIN target
System measures 2

- NICE Quality Standard defines best VTE prevention practice
- Recommendations for audit of thromboprophylaxis and root cause analysis of hospital-associated thrombosis
- Strengthening of commissioning arrangements in NHS standard contract
Patient empowerment
Ongoing Education

e-LFH
An extraordinary project in terms of breadth and skill of content

e-VTE
A web-based education resource designed to help raise awareness and improve understanding of Venous Thromboembolism

Menu
- Programme home
- More information
- Meet the team
- Access the e-learning

More information
VTE prevention e-learning course

These resources have been developed in partnership with the NHS England National VTE Prevention Programme. This e-learning session for healthcare professionals in Secondary Care was published in 2012 and updated in 2013. It is aimed at nurses, pharmacists, and junior doctors to help them understand the concept of hospital-associated thrombosis and how to prevent it.

Three new sessions have been developed in 2014.

The first is aimed at Primary Care to increase the awareness of healthcare-related VTE and enhance the quality of patient care with respect to VTE prevention prior to hospital admission and after discharge. It is designed for all healthcare professionals, including GPs, nurses, Health Visitors, midwives, and community pharmacists.

The second session has been developed for commissioners. This e-learning session provides a brief overview of venous thromboembolism as a condition and outlines the key role that commissioners have to play in ensuring that the delivery of acute care services across a range of medical and surgical specialties is underpinned by a high-quality approach to VTE prevention in order to improve outcomes for patients.

The third e-learning session is aimed at undergraduates and is focused on the pathophysiology of VTE and predisposing risk factors, as well as outlining why prevention is so important in the context of the national programme.

e-LFH is an Ehealth Education England Programme in partnership with the NHS and Professional Bodies

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Preventing VTE:

- Thrombosis team
- Staff education
- Supportive managers
- Link Nurse/Midwives
- Patient information
- Electronic VTEp systems
- RCA of HAT cases
- Audit programme

VTE Prevention
VTE prevention: what’s changed?

- Patient Safety has moved to NHS Improvement
- Healthcare Safety Investigation Branch (HSIB) established
- VTE prevention should be ‘business as usual’
- All system requirements are included in the NHS standard acute care contract
- Continue to refine understanding of VTE outcomes
- National VTE Exemplar Centres Network will continue to provide leadership and support the national programme
The VTE Exemplar Centres Network

VTE Exemplar Centres
Providing leadership in thrombosis care
NHS Champions for VTE Prevention

Guy’s and St Thomas’

St George’s
Champions from independent healthcare

Spire Southampton

The Horder Centre
A global VTE network: Canada
A global VTE network: Wales

Princess of Wales & Neath Port Talbot hospital
Understanding outcomes in VTE prevention

• Markers of process:
  - VTE risk assessment
  - Appropriate prophylaxis rates

• Cases identified via local HAT-RCA programmes

• Identifying cases of VTE and HAT at a national level
Understanding VTE outcomes

- Limitations of thromboprophylaxis
- Limitations of coding
- Limitations of death reporting
- Limitations of the outcome indicator as a marker for quality of VTE prevention process
  - Evaluation of surveillance bias and the validity of the VTE quality measure
    Bilimoria et al, JAMA 2013; 310(14):1482-1489
  - Association between inpatient surveillance and VTE rates after hospital discharge
    Holcomb et al, JAMA Surg 2015 (online April 1)
  - Thromboembolic complications and prophylaxis patterns in colorectal surgery
    SCOAP-CERTAIN collaborative, JAMA Surg 2015 (online June 10)
Impact of national VTE prevention programme in England

Impact of the national venous thromboembolism risk assessment tool in secondary care in England: retrospective population-based database study

David Catterick\textsuperscript{a,b} and Beverly J. Hunt\textsuperscript{c}

Domenico Pagano\textsuperscript{1,2}

2. Heart 2013; 0:1–6.
VTE risk assessment rates

Number of hospital admissions vs Risk assessment rates from Jul-10 to Oct-14.

- Total admissions: dashed line
- Risk assessment rate: solid line

King’s Thrombosis Centre

VTE Exemplar Centres
Providing leadership in thrombosis care
Expenditure on prophylactic LMWH
### Reducing Risks

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<tr>
<th>Process measures: AUDIT</th>
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**7.** Did Patient receive any of the following - please select all that apply:

- **Enoxaparin**
- **AES (Anti embolism Stockings / TED stockings)**
- **IPC (Intermittent pneumatic compression)**
- **Already on warfarin**
- **Rivaroxaban**
- **UFH (un-fractionated Heparin)**
- **Other (please specify)**
- **None prescribed**

**8.** If Enoxaparin was prescribed what was the dose?

- [ ] 20mg od
- [ ] 40mg od
- [ ] 40mg bd
- [ ] 60mg bd
- [ ] Other, please specify
- [ ] Enoxaparin not prescribed

**9.** Is the patient wearing AES?

- [ ] Yes
- [ ] No
Audit findings: Standard 4

Was pharmacological or mechanical TP correct?

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<td>Womens</td>
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Deaths from VTE related events within 90 days post discharge from hospital (NHS Outcomes Framework Indicator 5.1)
Rate per 100,000 adult admissions, 2007/08 to 2013/14.
Root cause analysis of cases of HAT

- Coding
- Diagnostics
- Autopsies
- Bereavement
- DVT/AC clinic
- Other hospitals
- Thrombosis Team
  - Data collection
  - Notification
  - Learning
- Trust Quality Framework
- Admitting consultant
Local HAT trends

Study period year

Percentage of preventable episodes

- 2011-2012: 38.15%
- 2012-2013: 26.70%
- 2013-2014: 19.57%
- 2014-2015: 20.31%

VTE Exemplar Centres
Providing leadership in thrombosis care
HAT root cause analysis:
thromboprophylaxis failure
Preventing HAT

• National VTE prevention programme has developed a comprehensive systems-based approach to VTE prevention
• There have been demonstrable improvements in process measures and VTE outcomes
• Devising a meaningful VTE outcomes indicator remains a priority
Where next?

• Sustaining best practice in VTE prevention is a continuing challenge
• Substantial burden of HAT remains
• Need for further research to help improve best practice

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