

VTE - Introduction



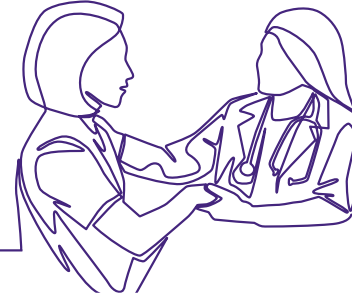
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Introduction to Venous Thromboembolism (VTE)

Treatment and management of Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE) – NICE CG144

Contemporary anticoagulation

Enhancing local practice

Introduction to VTE



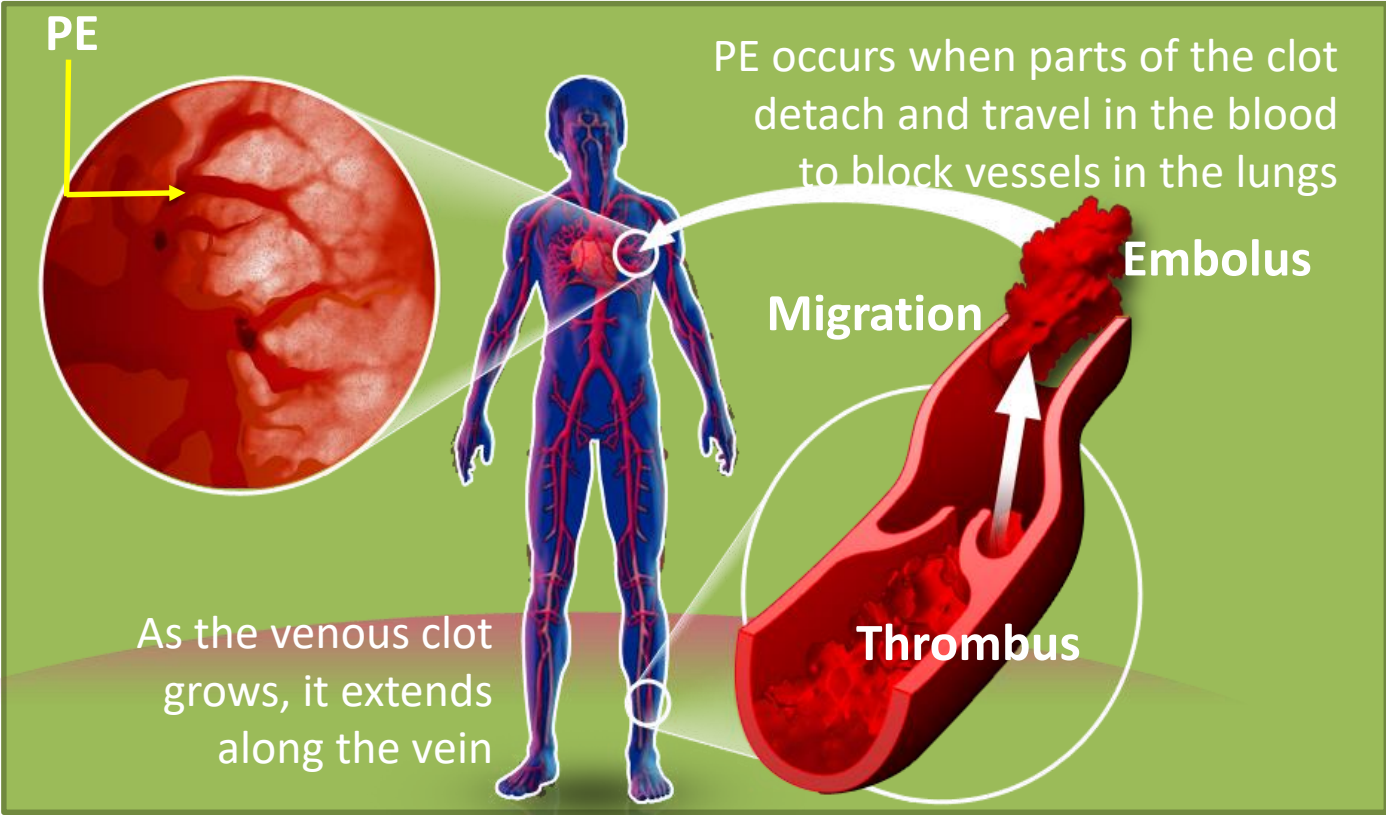
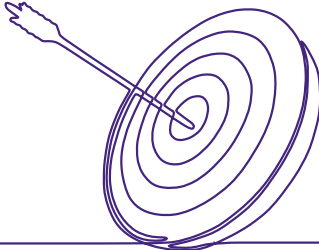
What is VTE?

Epidemiology

Long term consequences

Diagnosis of VTE

What is VTE - Single Disorder



Pathophysiology of PE



Occurs when a section of a propagating DVT breaks off and:

- Travels through the venous system
- Passes through the heart
- Ascends the pulmonary artery
- Lodges in the arterial system of the lungs



Epidemiology- Incidence of VTE



- The incidence of VTE is **1-2 per 1,000 of the population** and the risk increases with age
- **1 in 20 people** will have a VTE at some time in their life
- **Approximately half of patients** presenting with VTE have been hospitalised in the previous eight weeks

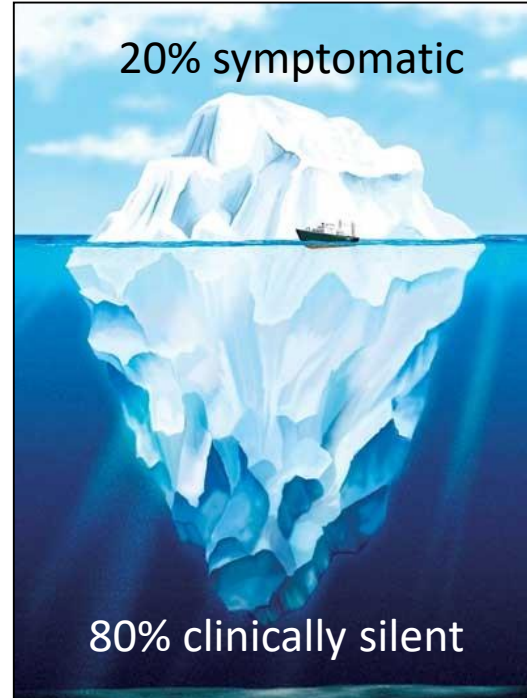
Hospital Associated Thrombosis (HAT)



Hospital-acquired thrombosis (HAT) is defined as any episode of venous thromboembolism arising in the 90 days following admission to hospital

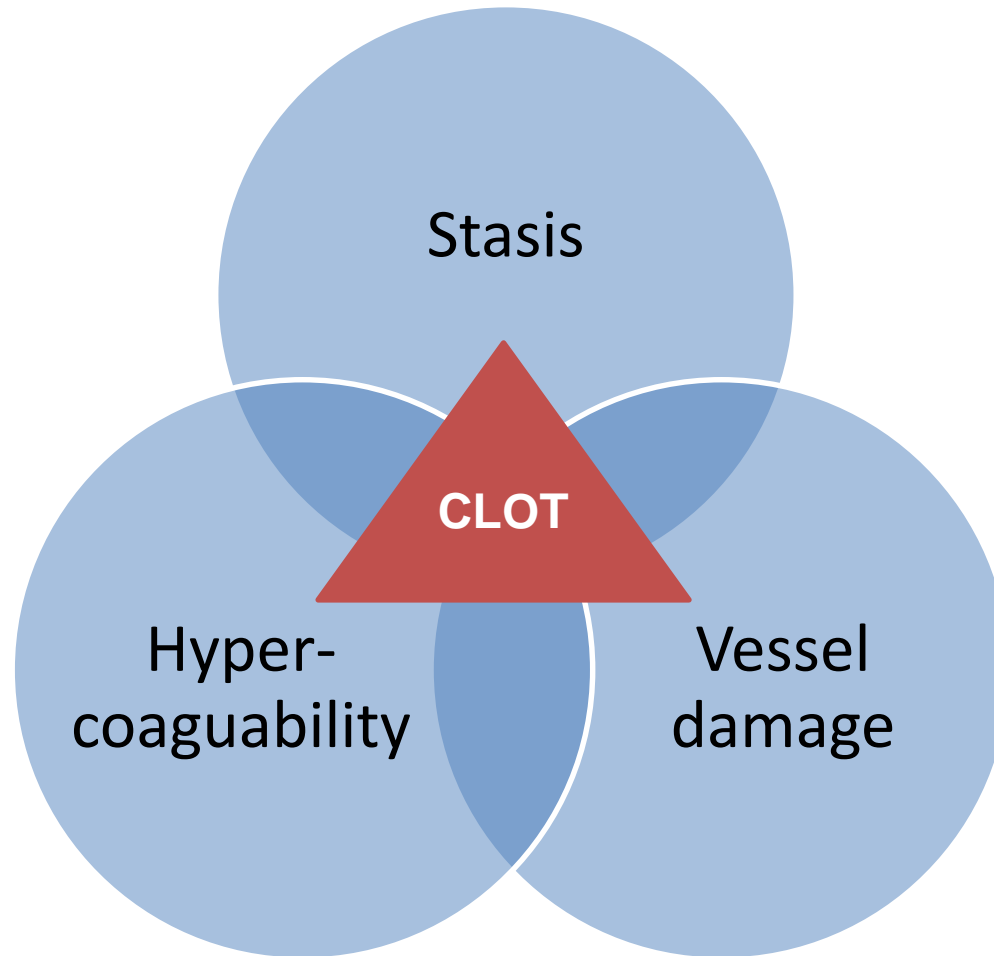


VTE is frequently unrecognised



Lethen H *et al.* *Am J Cardiol* 1997;80:1066-1069
Sandler DA, *et al.* *J R Soc Med* 1980;82:203-205
Image available at: www.clipart.altervista.com

Virchow's triad



Long Term Consequences

Known consequences of VTE



- Fatal PE
- Risk of recurrent VTE
- Post-thrombotic syndrome (PTS)
- Chronic thromboembolic pulmonary hypertension (CTEPH)
- Reduced quality of life



Pengo V, et al. *N Engl J Med* 2004;350:2257-64
Heit JA, et al. *Mayo Clin Proc* 2001;76:1102-1110
Image available at: www.cliparts.co

Post-thrombotic syndrome (PTS)



- Occurs in nearly one-third of patients within 5 years after idiopathic DVT
- PTS is characterised by:
 - Pain
 - Oedema
 - Hyperpigmentation
 - Eczema
 - Varicose collateral veins
 - Venous ulceration



Chronic thromboembolic pulmonary hypertension (CTEPH)



- Serious complication of PE
- Up to 5% of patients with PE are reported to develop CTEPH
- Initial phase of disease often asymptomatic and followed by progressive dyspnoea and hypoxaemia
- Right heart failure can frequently occur
- Progressive condition associated with mortality rates of 4–20%

ULHT – Risk Assessment (RA)



- All Adult Patients must be risk assessed on admission using the Trust RA proforma for emergency admissions within the clerking document
- Elective admissions use the RA for the specialty for example hip replacement for Orthopaedics
- All patients must be re-assessed as their condition may change

ULHT – Risk Assessment (RA)



- Patients identified with a risk
 - Prescribe appropriate antithrombotic
 - The prescription chart section for prescribing to be completed fully



- How do we know we have risk assessed and prescribed appropriate thromboprophylaxis?
- Clinical Audit (audit tool available to use)
 - Review the number of cases risk assessed
 - Was the RA completed fully
 - Signed, dated
 - Thromboprophylaxis prescribed
 - Thromboprophylaxis given as prescribed
 - Duration recorded
 - Discharged on extended prophylaxis for example hip surgery
 - Contact the Clinical Audit team for further details CGAudit@ulh.nhs.uk



- **How to access for doctors in training**
- <https://www.e-lfh.org.uk/programmes/venous-thromboembolism/>
- **Public access allows anyone access**
- http://cs1.elearningforhealthcare.org.uk/public/VTE_Public_Access/VTE_02_01/d/ELFH_Session/578/session.html?lms=n#radio_830.html