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## POLICY FOR REDUCING THE RISK OF VENOUS THROMBOEMBOLISM (VTE) IN ADULT PATIENTS ADMITTED TO HOSPITAL

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### Version Tracking

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4.1	01/02/21	Due to the second wave of the Coronavirus pandemic and continuing exceptional circumstances, the Trust Board have agreed that all policies which are currently within review date will have their review date further extended by six months	-
4	16/09/19	Inclusion of 16-17-year-old patients, removal of thrombosis committee responsibilities	██████████
3.2	25/01/19	Extension to review date agreed at Quality and Performance Committee	-
3.1	22/03/18	Updated Flow Diagram re: VTE investigations	██████████
3	18/08/16	Removed brand name of antiembolism stockings to generic term	██████████
2	09/04/14	Updated	██████████

## CONTENTS

QUICK REFERENCE GUIDE.....	3
1. INTRODUCTION.....	4
2. PURPOSE .....	4
3. SCOPE .....	4
4. DEFINITIONS .....	5
5. DUTIES AND RESPONSIBILITIES .....	6
6. PROCESS .....	8
7. TRAINING REQUIREMENTS .....	12
8. REFERENCES AND ASSOCIATED DOCUMENTATION .....	12
9. EQUALITY IMPACT STATEMENT .....	14
10. MONITORING COMPLIANCE WITH PROCEDURAL DOCUMENTS .....	15
Appendix 1 .....	16
Appendix 2 .....	18
EQUALITY IMPACT SCREENING TOOL .....	19

## QUICK REFERENCE GUIDE

For quick reference the guide below is a summary of actions required. This does not negate the need for the document author and others involved in the process to be aware of and follow the detail of this policy.

1. All patients over the age of 16 admitted to the Trust must be assessed for their risk of Venous ThromboEmbolicism (VTE) and bleeding on admission to hospital.
2. All patients over the age of 16 admitted to hospital must have their risk assessment decision reviewed by a senior clinician (consultant or registrar) within twenty four hours if the patient is still in hospital.
3. All patients must have their risk of VTE and bleeding reassessed if their clinical situation changes
4. All patients must be prescribed VTE prophylaxis in accordance with NICE and Trust guidance as indicated
5. Any deviations from NICE / PHT guidance must be clearly explained to the patient and fully documented in the patient's medical records.
6. VTE risk assessment must be clearly and fully documented electronically on VitalPAC or on a hard copy of the Trust risk assessment form (appendix 1 and 2 ) according to the protocol for each clinical area
7. Patients must be given written and verbal information on their risk of VTE, methods of prevention and signs and symptoms of Deep Vein Thrombosis (DVT) and Pulmonary Embolus (PE) on admission and as part of the discharge process
8. Patients should not be moved from one clinical area to another unless their VTE risk assessment and documentation is up to date and they have been prescribed appropriate thromboprophylaxis.
9. Patients fitted with antiembolism stockings must have them fitted and monitored in accordance with NICE guidance
10. All DVT or PE confirmed either radiologically or by the mortuary must be reported via the adverse incident reporting system and coded yellow initially. Suspected hospital associated VTE events must then be fully investigated according to the TRUST VTE investigation process.
11. All confirmed cases of DVT and PE must be treated according to the Trust Treatment Guidelines

## 1. INTRODUCTION

Hospital associated VTE has been identified as a major patient safety issue by the Department of Health (DH). Considerable scientific evidence has shown that the introduction of a mandatory VTE programme endorsed through guidance issued by both the National Institute for Health and Clinical Excellence (NICE) and DH can significantly reduce the incidence of hospital associated VTE.

Ensuring that best clinical practice with regards to VTE is followed will potentially reduce both the number and severity of identified hospital associated VTE events across PHT. This in turn will ensure a reduction in associated mortality and morbidity and the associated financial cost to the Trust.

Full implementation of NICE VTE Guidance and Quality Standards and ensuring that every patient undergoes a VTE risk assessment on admission to hospital and is offered NICE compliant thromboprophylaxis where appropriate, will improve patient care and outcomes. Reporting all identified cases of VTE and carrying out root cause analysis on every hospital associated event will ensure that care and service delivery problems are highlighted, education and action points are identified and Trust-wide learning ensues.

## 2. PURPOSE

This policy aims to ensure that all patients admitted to hospital receive the best evidence based care consistent with NICE VTE Guidelines and Quality Standards. This policy will enable healthcare practitioners to identify patients at risk of developing VTE and select the appropriate therapy, thus reducing the incidence of VTE and the associated mortality and morbidity.

## 3. SCOPE

### 3.1 Staff

This policy applies to all permanent, locum, agency and bank staff of Portsmouth Hospitals NHS Trust who are involved in VTE risk assessment, and the prescription and administration of chemical and mechanical thromboprophylaxis.

### 3.2 Patients

This policy covers all patients 16 years and older admitted to hospital as inpatients or formally admitted to a bed for day case procedures and patients discharged from the Emergency Department (ED) or the Minor Injuries Units (MIU) who are lower limb immobilised.

#### 3.2.1 Groups that will be covered:

- Surgical inpatients (including day surgery)
- Medical inpatients
- Trauma inpatients
- Cancer inpatients
- Patients undergoing long term rehabilitation in hospital
- Pregnant women admitted to hospital
- Patients discharged from ED of MIU who are lower limb immobilised

#### 3.2.2 Groups that will not be covered:

- People under the age of 16 years
- People attending the hospital as outpatients
- People presenting to emergency departments without admission (except patients discharged who are lower limb immobilised)

- Elderly or immobile people cared for at home, or in a residential care or rest home, unless admitted to hospital.

### 3.2.3 Healthcare setting

- Secondary care
- Primary care after hospital discharge (selected patients requiring extended, post hospital thromboprophylaxis).

*'In the event of an infection outbreak, flu pandemic or major incident, the Trust recognises that it may not be possible to adhere to all aspects of this document. In such circumstances, staff should take advice from their manager and all possible action must be taken to maintain ongoing patient and staff safety'*

## 4. DEFINITIONS

**Antiembolism stockings (AES):** stockings providing graduated circumferential compression from the distal to the proximal regions of the leg, they are specifically designed to reduce the risk of DVT

**Body mass index (BMI):** a measure of body mass calculated on height and weight: Thrombosis risk increases with a BMI > 30 kg/m<sup>2</sup>)

**Deep vein thrombosis (DVT):** a thrombus or blood clot partially blocking the deep veins (usually in the lower limb or pelvis)

**ERIT:** Event Requiring Investigation Template. Reporting framework utilised within PHT

**Exemplar Centre Network:** A group of Trusts that have been assessed to have exemplary practice in VTE and provide leadership in VTE care.

**Hormone replacement therapy (HRT):** system of medical treatment for surgically menopausal, peri-menopausal and, to a lesser extent, menopausal women

**International normalized ratio (INR):** the standardised laboratory measure of blood coagulation

**Intermittent pneumatic compression devices (IPC devices):** inflatable garments applied to the foot or the leg which intermittently inflate and deflate enhancing venous return and reducing the risk of DVT

**Low molecular weight heparin (LMWH):** a class of anticoagulation medication used in the prevention and treatment of blood clots. The LMWH on the Trust formulary is enoxaparin and the standard prophylactic dose is 40mg daily – but see below for suggested obesity doses

**Major bleeding:** A bleeding event that leads to one or more of the following:

- Death
- A decrease of haemoglobin concentration of  $\geq 2$ g/dl
- Transfusion of  $\geq 2$  units of blood
- Bleeding into a retroperitoneal, intracranial or intraocular site
- A serious or life threatening clinical event
- A surgical or medical intervention

**Mechanical prophylaxis:** Antiembolism stockings or IPC devices  
**Oestrogen containing oral contraceptive pill (COCP)**

**Post thrombotic syndrome (PTS):** a common consequence of DVT causing significant long term morbidity (chronic aching, swelling, skin discolouration and leg ulceration)

**Pulmonary embolism (PE):** a blood clot blocking the pulmonary arteries

**Pulmonary hypertension (PHT):** abnormally elevated blood pressure within the pulmonary circuit, a severe consequence of PE associated with significant morbidity and mortality.

**Renal failure:** an estimated glomerular filtration rate (eGFR) of < 30 ml/min/1.73m<sup>2</sup>

**Significantly reduced mobility:** bedbound, unable to walk unaided or likely to spend a substantial proportion of the day in a bed or chair (NICE, 2010)

**Unfractionated heparin (UFH):** the drug of choice for thromboprophylaxis in patients with renal failure or in patients where rapid reversal of indication may be indicated. The standard dose is 5000iu twice daily but for high risk critical care patients, a dose of 5000iu three times daily may be indicated (see Trust departmental VTE guidelines).

**Venous thromboembolism (VTE):** the blocking of a blood vessel by a blood clot. It includes both DVT and PE

**Weight Adjusted dose LMWH:** For patients with a high/low body weight, an adjusted dose of LMWH is often indicated (Body weight > 100kg: 40mg enoxaparin twice daily, Body weight > 150kg: 60 mg enoxaparin twice daily. For patients below 50kg: 20mg enoxaparin once daily) (*Kings thrombosis Centre Guidance 2010*)

## 5. DUTIES AND RESPONSIBILITIES

### The Clinical Nurse Specialist (CNS) for Venous ThromboEmbolic

The Clinical Nurse Specialist is responsible for:

- Leading the implementation of the VTE policy throughout the Trust;
- Leading and coordinating an audit programme to monitor the effectiveness of the VTE Policy
- Delivering VTE training on the FY1, preceptorship and patient safety and quality teaching programmes.
- Supporting the VTE Link Nurse and providing ward-based training as required
- Ensuring that hospital associated VTE events are appropriately reported and investigated and feeding back to relevant internal and external agencies as required.
- Ensuring the provision of monthly updates to the Trust Board
- Represent the Trust on the Exemplar Centre Network and the National Nursing and Midwifery Network for VTE

### Divisional Chiefs of Service

The Divisional Chiefs of Service are responsible for:

- Appointing / designating a VTE Lead for the Division and / or constituent departments and ensuring that time is made available in their job plan for them to fulfil that role
- Supporting the Division VTE Leads in their role
- Identifying which clinical staff are responsible for carrying out VTE risk assessments within their Division

VTE Policy

Version: 4.1

Issue Date: 09<sup>th</sup> October 2019

Review Date: 08<sup>th</sup> April 2022 (unless requirements change)

- Ensuring that Trust VTE Policy and Guidance is followed
- Working with the Divisional VTE Leads to ensure that VTE risk assessment figures and hospital acquired VTE event figures are monitored within the Division and ensuring that Contract targets are met

### **VTE Lead for the Division**

VTE Divisional Leads are responsible for:

- Ensuring medical staff are compliant with policy as described below

### **Medical staff**

Medical staff are responsible for:

- Ensuring that they are up to date with VTE training
- Ensuring that patients are assessed for their risk of VTE and bleeding using the Trust risk assessment tool on admission to hospital
- Ensuring that patients have their initial risk assessment decision reviewed by a senior clinician (consultant or registrar) within 24 hours if the patient is still in hospital
- Ensuring that patients are re-assessed for their risk of VTE and bleeding if their clinical situation changes.
- Ensuring that all risk assessments are clearly documented on VitalPAC (in clinical areas without VitalPAC, the risk assessment must be documented on a hard copy of the Trust risk assessment tool and inserted into the patient's medical notes ( see appendices 1 + 2 ))
- Ensuring that patients are prescribed VTE prophylaxis consistent with NICE and Trust guidance.
- Ensuring that patients understand their personal risk of VTE and the reasons for their particular management especially if that deviates from standard Trust practice.
- Clearly documenting in the patient's notes any deviations from NICE and Trust guidance on VTE and the rationale for this deviation
- Taking an active role in the VTE Route Cause Analysis ( RCA ) process, as appropriate

### **VTE Link Nurses**

VTE Link Nurse are responsible for

- Acting as a 'champion' and visible resource to other clinical staff
- Participating in teaching other clinical staff
- Working with the VTE leads to ensure that the Trust VTE policy is implemented in their clinical area
- Working with clinicians / VTE leads within their clinical area to ensure that staff are aware of the requirement to ensure all patients have a VTE risk assessment and are provided with appropriate thromboprophylaxis

### **Divisional Nurse Directors**

Divisional Nurse Directors are responsible for:

- Monitoring compliance with VTE risk assessment across the Division
- Submitting a Divisional Implementation Plan outlining how the Division aims to achieve compliance with the NICE VTE Quality Standards

VTE Policy

Version: 4.1

Issue Date: 09<sup>th</sup> October 2019

Review Date: 08<sup>th</sup> April 2022 (unless requirements change)

Page 7 of 20

- Supporting line managers to release staff for training/meetings.
- Working directly with line managers to address issues raised by VTE RCA action plans
- Ensuring that all clinical areas have a VTE Link Nurse and supporting them in this role

### **Registered nursing staff**

Registered nursing staff are responsible for:

- Ensuring that they are up to date with VTE training and that their ESR record is updated
- Ensuring that all patients in their care have been assessed for their risk of VTE and bleeding and that this risk assessment is up to date
- Ensuring that VTE documentation on VitalPAC and in the patients notes is accurate and up to date
- Administering both mechanical and chemical VTE prophylaxis as prescribed and ensuring that this is carried out in accordance with NICE and Trust guidance
- Ensuring that all patients receive verbal and written information on their risks of VTE, methods of prevention and signs and symptoms of DVT and PE on admission and as part of the discharge process
- Teaching patients to self administer VTE prophylaxis where appropriate
- Ensure escalation to the medical lead responsible for the patient any omissions in VTE risk assessment and treatment

### **Clinical Effectiveness Committee**

The Clinical Effectiveness Committee is responsible for:

- Monitoring compliance with the policy
- Ratification of the policy
- Receiving and acting upon concerns with compliance

The Committee will receive a quarterly report from the VTE CNS on all matters relating to the Trust's VTE Strategy.

## **6. PROCESS**

### **6.1 Risk Assessment**

- 6.1.1 All adult patients admitted to the Trust will be assessed for their risk of VTE and bleeding using the Trust VTE risk assessment tool (see appendix 1). The risk assessment will take place on admission or at the Pre-Operative Assessment Clinic (elective surgical patients only).
- 6.1.1 Patients discharged directly from ED or the MIU in a lower limb plaster cast/immobilization must be assessed using the lower limb plaster cast tool (appendix 2)
- 6.1.2 Each Division/Care Group should outline a clear process for defining who is responsible for carrying out and documenting the VTE risk assessments (medical, nursing or pharmacy staff).
- 6.1.3 The risk assessment must be documented on VitalPAC. Clinical areas without VitalPAC must fill in a hard copy of the VTE risk assessment tools and file it in the patient's medical record.

- 6.1.4 The initial risk assessment should be reviewed by a senior clinician (registrar or consultant) within 24 hours of admission and whenever the clinical situation changes
- 6.1.5 Patients assessed to be at risk of VTE should be offered thromboprophylaxis that is consistent with NICE and Trust guidelines
- 6.1.6 Rationale for any deviation from NICE / Trust guidelines must be clearly explained to the patient and fully documented in their medical record
- 6.1.7 Contraindications to chemical or mechanical prophylaxis must be clearly documented in the patient's medical record

## 6.2 Treatment

- 6.2.1 All patients assessed to be at risk of VTE must be prescribed chemical prophylaxis in accordance with Trust Guidelines unless contraindicated
- 6.2.2 Treatment must continue until discharge or until the patient no longer has significantly reduced mobility (usually at least 5 – 7 days)
- 6.2.3 Extended chemical thromboprophylaxis (LMWH or Rivaroxaban for example) must be prescribed for the following high risk groups unless there are clearly documented contraindications:
  - Total hip replacement (35 days)
  - Total knee replacement (14 days)
  - Hip fracture (35 days)
  - Major pelvic or abdominal surgery for cancer ( 28 days)
  - At risk Day Surgical Patients (5-7 days)
  - At risk patients who are lower limb immobilised (consider prescribing prophylaxis for the duration of plaster cast/boot)
- 6.2.4 Pre-operative chemical prophylaxis should not be prescribed for patients undergoing elective surgery unless specifically requested by a Consultant. In these cases the planned prophylaxis and the underlying rationale must be clearly documented in the patient's medical record.
- 6.2.5 Pre-operative chemical prophylaxis may be appropriate for patients undergoing non-elective / emergency surgery, particularly if the patient is immobilised for a long period prior to the procedure. Careful consideration of the risks and benefits of chemical prophylaxis should be used and the rationale for any decision to prescribe prophylaxis clearly documented in the patient record.
- 6.2.6 At risk surgical patients must have **either** intermittent pneumatic compression devices **or** antiembolism stockings fitted prior to surgery; these must be worn until mobilized. Both are not required **unless** there is a delay in starting chemical prophylaxis or it is contraindicated.
- 6.2.7 All patients should be adequately hydrated according to their clinical condition.
- 6.2.8 All patients should be mobilised as early as possible within the limitations of their clinical condition.
- 6.2.9 Patients diagnosed with a DVT or PE should be treated in accordance with the Trust treatment guidelines.

### 6.3 Advice

6.3.1. Patients and their carers must be given written and verbal information on VTE on admission and as part of the discharge process. Information should include the risk of VTE, methods of prevention and signs and symptoms of DVT and PE. This information is contained in the Trust patient information leaflet:

***“Reducing your risk of developing a blood clot while you are in hospital”***

There must be clearly documented evidence in the patient’s medical record that this information has been provided.

### 6.4 If a DVT or PE is suspected

If a DVT or PE is suspected, treatment dose LMWH (UFH in renal failure or if massive PE is suspected) must be commenced immediately unless contraindicated and appropriate investigations requested (refer to the PE and DVT investigation pathways). Should an IVC filter be considered, this should be discussed with the Radiology department.

### 6.5 Confirmed DVT and PE

6.5.1: Confirmed cases of DVT and PE must be managed according to the Trust VTE Treatment Guidelines.

VTE treatment in adults patients with Enoxaparin

<http://pharmweb/publications/guidelines/Venous%20Thromboembolism%20Treatment%20in%20Adult%20Patients%20with%20Enoxaparin.pdf>

Warfarin dosing and reversal of excess anticoagulation in adults

<http://pharmweb/publications/guidelines/Warfarin%20Dosing%20and%20Reversal%20of%20Excess%20Anticoagulation%20in%20adults.pdf>

Thromboembolic Disease in Pregnancy: Acute Management

<http://pht/Departments/Pharmacy/Drug%20Therapy%20guidelines/Thromboembolic%20Disease%20in%20Pregnancy%20and%20the%20Puerperium.aspx>

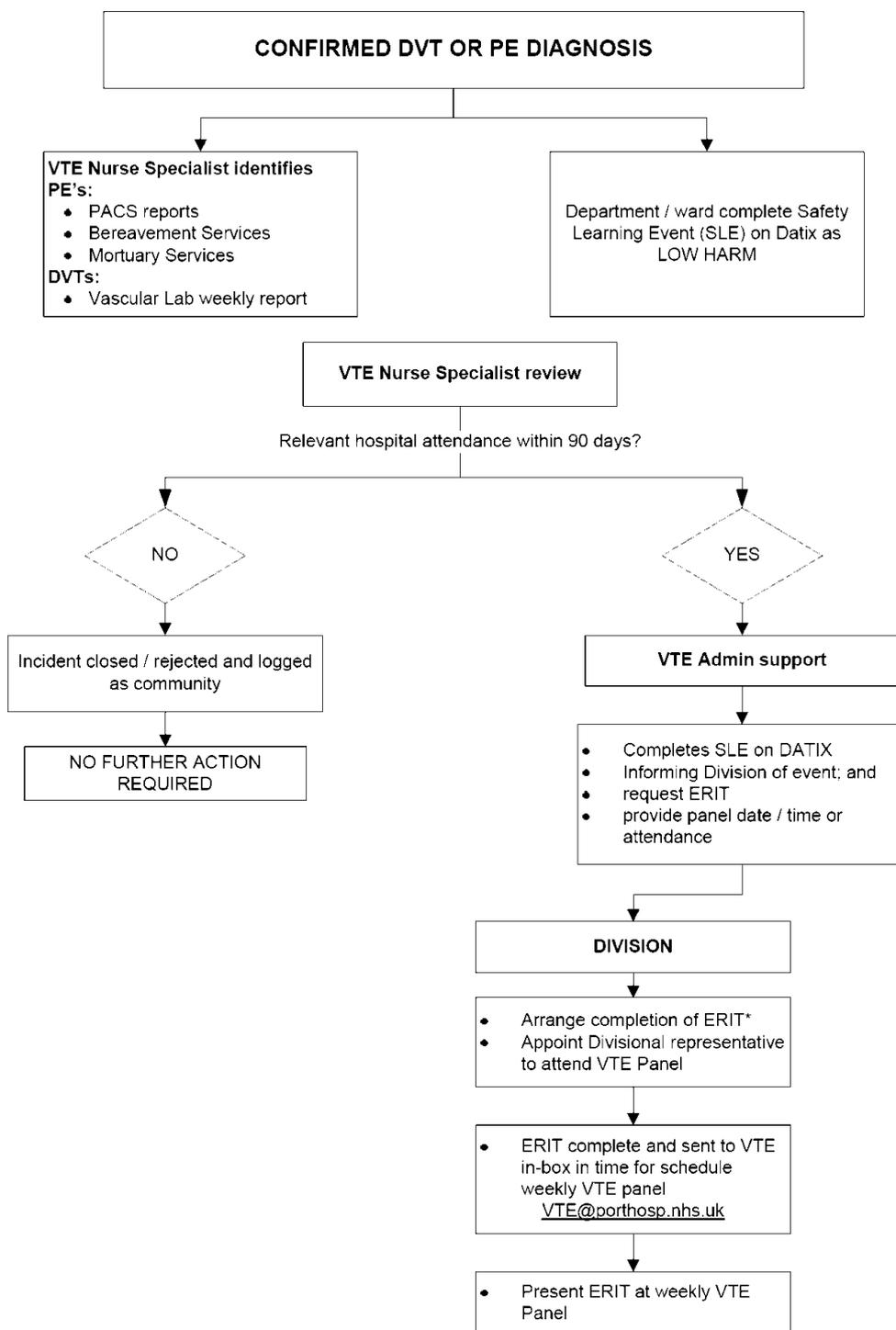
Rivaroxaban for the treatment of suspected and confirmed Deep Vein Thrombosis

<http://pht/Departments/Pharmacy/Drug%20Therapy%20guidelines/Rivaroxaban%20for%20the%20treatment%20of%20suspected%20and%20confirmed%20Deep%20Vein%20Thrombosis.doc>

6.5.2 All cases of DVT or PE confirmed either radiologically or on post mortem must be processed via the Trust VTE Reporting and Investigation process. (see

6.5.3 below)

## VTE REPORTING AND INVESTIGATION



\*ERIT must include:

- If patient had been an inpatient, had surgery or attended ED with POP application within previous 90 days.
- If patient risk assessed and assessment documented on admission to hospital.
- If any thrombosis risk factor is identified, that thromboprophylaxis (mechanical or chemical) was prescribed in accordance with NICE guidelines
- Whether any prescribed prophylaxis was delayed or omitted

VERSION: 4.1

Issue Date: 09<sup>th</sup> October 2019

Review Date: 08<sup>th</sup> April 2022 (unless requirements change)

## 7. TRAINING REQUIREMENTS

As identified in the Trust's training needs analysis:

### Medical Staff

- All junior medical staff must undertake VTE training as part of their induction and every two years thereafter.
- All medical staff must undertake the DH eLearning module every two years.
- All medical staff must undertake local departmental training on the VTE VitalPAC module if appropriate

### Nursing Staff

All trained nurses must:

- Undertake VTE training as part of their induction or preceptorship programmes
- Attend the Patient Safety and Quality Training Day / VTE Essential Update Programme every two years
- If involved in the fitting and monitoring anti-embolism stockings and IPC devices, attend training sessions every two years or whenever a new product is introduced.
- Undertake local departmental training on the VTE VitalPAC module if appropriate.

## 8. REFERENCES AND ASSOCIATED DOCUMENTATION

### **Internal Guidelines**

- Bridging guidelines for peri-operative management of existing anticoagulation in surgical & invasive procedures (Adults)

[http://pht/Departments/Pharmacy/Drug%20Therapy%20guidelines/Bridging%20guidelines%20for%20peri-operative%20management%20of%20existing%20anticoagulation%20in%20surgical%20and%20invasive%20procedures%20\(Adults\).doc](http://pht/Departments/Pharmacy/Drug%20Therapy%20guidelines/Bridging%20guidelines%20for%20peri-operative%20management%20of%20existing%20anticoagulation%20in%20surgical%20and%20invasive%20procedures%20(Adults).doc)

- Venous Thromboembolism and Pulmonary Embolism Prophylaxis for the Department of Critical Care

<http://pht/Departments/Pharmacy/Drug%20Therapy%20guidelines/Venous%20Thromboembolism%20and%20Pulmonary%20Embolism%20Prophylaxis%20for%20Critical%20Care%20Patients.doc>

- Venous Thromboembolism and Pulmonary Embolism Prophylaxis for Medical Patients

<http://pht/Departments/Pharmacy/Drug%20Therapy%20guidelines/Venous%20Thromboembolism%20and%20Pulmonary%20Embolism%20Prophylaxis%20for%20Medical%20Patients.doc>

- Venous Thromboembolism and Pulmonary Embolism Prophylaxis for Surgical Patients

VTE Policy

Version: 4.1

Issue Date: 09<sup>th</sup> October 2019

Review Date: 08<sup>th</sup> April 2022 (unless requirements change)

Page 12 of 20

[http://pht/Departments/Pharmacy/Drug%20Therapy%20guidelines/Venous%20Thromboembolism%20and%20Pulmonary%20Embolism%20Prophylaxis%20for%20Surgical%20Patients%20\(excluding%20Orthopaedics\).doc](http://pht/Departments/Pharmacy/Drug%20Therapy%20guidelines/Venous%20Thromboembolism%20and%20Pulmonary%20Embolism%20Prophylaxis%20for%20Surgical%20Patients%20(excluding%20Orthopaedics).doc)

- Venous Thromboembolism and Pulmonary Embolism Prophylaxis in Orthopaedic patients

<http://pht/Departments/Pharmacy/Drug%20Therapy%20guidelines/Venous%20Thromboembolism%20and%20Pulmonary%20Embolism%20Prophylaxis%20in%20Adult%20Orthopaedic%20Patients.doc>

- Venous Thromboembolism Prophylaxis in Pregnancy

<http://pht/Departments/Pharmacy/Drug%20Therapy%20guidelines/Thromboprophylaxis%20in%20Pregnancy%20and%20Puerperium.aspx>

- DVT and PE Treatment with Enoxaparin

<http://pharmweb/publications/guidelines/Venous%20Thromboembolism%20Treatment%20in%20Adult%20Patients%20with%20Enoxaparin.pdf>

- Treatment of Superficial thrombophlebitis

<http://pharmweb/publications/guidelines/Superficial%20Thrombophlebitis%20Treatment.pdf>

- Guidelines for thromboprophylaxis in the Renal Unit: Interim guideline

<http://pht/Departments/Pharmacy/Drug%20Therapy%20guidelines/Interim%20Guidelines%20for%20Thromboprophylaxis%20in%20the%20Renal%20Unit.doc>

## External

- *Venous Thromboembolism: reducing the risk: Reducing the risk of venous Thromboembolism (deep vein thrombosis and pulmonary embolism) in patients admitted to hospital: NICE Clinical Guideline 92, Jan 2010*  
<http://guidance.nice.org.uk/CG92>
- *Venous Thromboembolism Prevention Quality Standard: NICE, June 2010*  
<http://www.nice.org.uk/aboutnice/qualitystandards/vteprevention/vtequalitystandard.jsp>
- *Risk Assessment for Venous Thromboembolism: DH 2010*  
[http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/@dh/@en/@ps/documents/digitalasset/dh\\_113355.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_113355.pdf)
- *House of Commons Health Committee: The Prevention of Venous Thromboembolism in Hospitalised Patients. Second report of the session 2004/5: DH 2005*  
<http://www.parliament.the-stationery-office.co.uk/pa/cm200405/cmselect/cmhealth/99/99.pdf>
- *Thrombosis and Embolism during Pregnancy and Puerperium: Reducing the risk (Green top – 37a): Royal College of Obstetricians and Gynaecologists (RCOG). 2015*  
<https://www.rcog.org.uk/globalassets/documents/guidelines/gtg-37a.pdf>

## 9. EQUALITY IMPACT STATEMENT

Portsmouth Hospitals NHS Trust is committed to ensuring that, as far as is reasonably practicable, the way we provide services to the public and the way we treat our staff reflects their individual needs and does not discriminate against individuals or groups on any grounds.

This policy has been assessed accordingly

Our values are the core of what Portsmouth Hospitals NHS Trust is and what we cherish. They are beliefs that manifest in the behaviours our employees display in the workplace.

Our Values were developed after listening to our staff. They bring the Trust closer to its vision to be the best hospital, providing the best care by the best people and ensure that our patients are at the centre of all we do.

We are committed to promoting a culture founded on these values which form the 'heart' of our Trust:

**Respect and dignity**

**Quality of care**

**Working together**

**Efficiency**

This policy should be read and implemented with the Trust Values in mind at all times.

## 10. MONITORING COMPLIANCE WITH PROCEDURAL DOCUMENTS

Minimum requirement to be monitored	Lead	Tool(s)	Frequency of Reporting of Compliance	Reporting arrangements	Acting on recommendations and Lead(s)
<p>Process/risk assessment for identifying patients at risk of VTE</p> <p>&gt; 95% of adult hospital inpatients will be risk assessed</p>	VTE CNS	<p>Audit tool VitalPAC</p> <p>Audit Tool: Maternity Services</p> <p>Audit Tool: Dept of Critical Care</p>	Monthly	<p>Report to:</p> <p><u>Weekly Dashboards</u></p> <ul style="list-style-type: none"> <li>CSC Management Teams</li> <li>Ward Managers</li> <li>All PHT Consultants</li> </ul> <p><u>Monthly</u></p> <ul style="list-style-type: none"> <li>Trust Board/ Quality and Performance Committee</li> <li>DH</li> </ul> <p><u>Quarterly</u></p> <ul style="list-style-type: none"> <li>Patient Safety report to Quality and Performance Committee</li> </ul>	VTE CNS
<p>Prophylactic treatment regime for high risk patients</p> <p>&gt; 95% of high risk patients will received appropriate prophylaxis</p>	VTE CNS	<p>Audit tool Vitalpac</p> <p>Audit Tool: Maternity Services</p> <p>Audit Tool: Dept of Critical Care</p>	Monthly	<p>Report to:</p> <p><u>Weekly Dashboards</u></p> <ul style="list-style-type: none"> <li>CSC Management Teams</li> <li>Ward Managers</li> <li>All PHT Consultants</li> </ul> <p><u>Monthly ( By Exeption )</u></p> <ul style="list-style-type: none"> <li>Trust Board</li> <li>DH</li> </ul> <p><u>Quarterly</u></p> <p>Patient Safety report to Quality and Performance Committee</p>	VTE CNS
<p>Management of patients once a positive diagnosis is made</p> <p>100% of patients with a positive diagnosis will receive appropriate management</p>	VTE CNS	<p>Audit sample of records of patients with a positive diagnosis</p>	Quarterly	Quarterly Patient Safety Report	VTE CNS

This document will be monitored to ensure it is effective and to assurance compliance.

## Appendix 1

### RISK ASSESSMENT FOR VENOUS THROMBOEMBOLISM (VTE)

Portsmouth Hospitals   
NHS Trust

Hospital no:
Surname:
First name:
DOB:

RISK ASSESSMENT FOR VENOUS THROMBOEMBOLISM (VTE)						
Mobility all patients (tick one box)	Tick		Tick		Tick	
Surgical patient		Medical patient expected to have ongoing reduced mobility relative to normal state.		Medical patient NOT expected to have significantly reduced mobility relative to normal state		*Low Risk Cohort. Only select this option if the patient is included in the Trust's cohort list (see over) and you consider the patient to be at low risk of VTE*
Assess for thrombosis and bleeding risk below			Risk assessment now complete		Risk assessment now complete	

Thrombosis risk			
Patient related	Tick	Admission related	Tick
Active cancer or cancer treatment		Significantly reduced mobility for 3 days or more	
Age >60		Hip or knee replacement	
Dehydration		Hip fracture	
Known thrombophilia (clotting disorder)		Total anaesthetic + surgery time >90mins	
Obesity (BMI >30kg/m <sup>2</sup> )		Surgery involving pelvis or lower limb with anaesthetic + surgery time >60mins	
One or more medical co-morbidities (e.g. heart disease, metabolic, endocrine or respiratory pathologies, acute infections, inflammatory conditions)		Acute surgical admission with inflammatory or intra-abdominal condition	
Personal / 1st degree relative with history of VTE		Critical care admission	
Use of HRT		Surgery with significant reduction in mobility	
Use of oestrogen-containing OTC			
Varicose veins with phlebitis			
Pregnancy or <six weeks post-partum (see NICE guideline for specific risk factors)			

Preadmission assessment date:	On admission, date / time:
Name:	Name:
Signed:	Signed:
Risk assessment must be confirmed on admission	

Bleeding risk			
Patient related	Tick	Admission related	Tick
Active bleeding		Neurosurgery*, spinal surgery* or eye surgery	
Acquired bleeding disorder such as acute liver failure		Other procedure with high bleeding risk	
Concurrent use of anticoagulants known to increase risk of bleeding such as INR>2		Lumbar puncture / epidural / spinal anaesthetic expected in next 12 hours	
Acute stroke		Lumbar puncture / epidural / spinal anaesthetic within the previous 4hrs	
Platelets <75 x 10 <sup>9</sup> (check on admission)			
Uncontrolled hypertension (>200/120)			
Untreated inherited bleeding disorder such as haemophilia or von Willebrand disease		§ See specific neurosurgical guidance	

Risk of VTE (tick)	High risk of VTE with low bleeding risk	High risk of VTE with significant bleeding risk	Low risk of VTE
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Chemical prophylaxis prescribed? <input type="checkbox"/> Yes <input type="checkbox"/> No
Clinician's signature:
Name: _____ Date: _____

Surgical patients		Medical patients
Risk of VTE	Recommended prophylaxis	Recommended prophylaxis
HIGH (with low risk of bleeding)	Enoxaparin 40mg daily + TED stockings +/- sequential compression device + Early mobilisation	Enoxaparin 40mg daily + Early mobilisation
HIGH (with significant risk of bleeding)	TED stockings +/- sequential compression device + Early mobilisation	TED stockings +/- sequential compression device + Early mobilisation (Do NOT use TED stockings in stroke patients)
LOW	Early mobilisation	Early mobilisation

\*Use rivaroxaban 10mg daily in elective hip or knee arthroplasty post-operatively only.  
Obstetric patients: please refer to RCOG green top guideline 37.

Neurosurgical patients	
Elective spinal surgery Cranial surgery patients	TED stockings If $\geq$ ONE patient related risk factor add enoxaparin 40mg daily starting 24hrs post-operatively only
Emergency spinal patients	Enoxaparin 40mg daily + TED stockings STOP enoxaparin 24hrs preoperatively, restart 6h post-operatively
Major head injury	TED stockings Add enoxaparin only if decision documented by SpR or consultant
High bleeding risk (SAH, unsecured aneurism and AVM, SDH, EVD in situ, DBS insertion)	TED stockings If $\geq$ ONE patient related risk factor +/- sequential compression device

CONTRAINDICATIONS	
Enoxaparin	TED/SCD
CrCl <30ml/min - <b>reduce dose to 20mg daily</b> CrCl <20ml/min - <b>use unfractionated heparin 5000iu bd</b>	Severe peripheral vascular disease
Significant active bleeding	Do NOT use SCD if recent lower limb DVT (can use TED)
Platelet count <75 x 10 <sup>9</sup>	Severe dermatitis
Untreated inherited bleeding disorder	Massive leg oedema
Previous HIT or allergy to enoxaparin	Leg deformity
On therapeutic anticoagulation	Peripheral neuropathy
Acquired bleeding disorder	Recent skin graft
Patient concerns about using animal products	Allergy to fabric

<b>Timing:</b>	Enoxaparin or Rivaroxaban should start 6hrs post-op (providing haemostasis secured) and then 1800 daily thereafter. In addition, enoxaparin can be given the evening prior to surgery (excluding neurosurgery, see above). Mechanical VTE prophylaxis should be offered at admission.
<b>Epidural / spinal analgesia + nerve / plexus blocks</b>	Placement or removal of catheter should be delayed for 12hrs after administration of prophylactic dose enoxaparin. Enoxaparin should not be given sooner than 4hrs after catheter removal. Placement or removal of catheter should be delayed 24hrs after administration of rivaroxaban. Rivaroxaban should not be given sooner than 24hrs after catheter removal.
<b>Duration:</b>	Continue until mobility no longer significantly reduced. High-risk orthopaedic patients should receive prophylaxis for <b>at least</b> 10 days. Elective knee replacement receive 14days prophylaxis and 28-35days prophylaxis should be given for elective hip replacement, hip fracture and other selected high-risk general surgery patients e.g. major cancer surgery. At risk patients fitted with a lower limb plaster cast will need to continue prophylaxis until cast removed.
<b>Obesity</b>	Consider enoxaparin 40mg bd if body weight >100kg (or 60mg bd if body weight >150kg). Discuss with consultant prior to prescribing BD doses.
<b>Low risk cohorts</b>	<ul style="list-style-type: none"> <li>• Haemodialysis</li> <li>• Day Case Endoscopy</li> <li>• Day Case Bronchoscopy</li> <li>• Day Case Dental Surgery</li> <li>• Day Case Skin Biopsy</li> <li>• Any other Day Case Procedure lasting less than 90 minutes and not requiring general anaesthesia</li> <li>• Patients admitted to the Oncology / Haematology Day Unit for minor procedures, blood transfusions or chemotherapy</li> <li>• Patients admitted to the Rheumatology Day Unit for minor interventions or therapies</li> </ul>

Patient label	
Surname:	
First name:	
Hosp No.:	
Date of Birth:	

## Lower Limb Immobilisation VTE risk

For all out-patients immobilised  
in a lower limb cast / boot / splint  
Please tick every box relevant to yourself  
(the patient)

Patient Details			Medical History		
Risk	Tick	Score	Risk	Tick	Score
Age 60 years or above		1	Thrombophilia - A blood clotting disorder		3
Very overweight - Women with waist measurement over 88cm (35ins) and men with waist measurement over 104cm (40ins)		2	Varicose veins		1
Severe mobility problems / unable to walk unaided before accident or injury		2	Lung disease / Heart disease / heart attack or stroke in last 6 months		1
<b>Current Medication</b>			Inflammatory disease (bowel or joints)		1
Oral Contraceptive Pill (birth control pill) or Hormone Replacement Therapy		1	Recent surgery or inpatient hospital stay in last 6 weeks		2
Raloxifene or Tamoxifen		1	Active cancer / undergoing treatment for cancer		3
Erythropoietin, Thalidomide or Lenalidomide		2	Previous history of leg vein clots (Deep Vein Thrombosis, DVT) or lung clots (Pulmonary Embolism, PE)		3
<b>Family History</b>			Pregnant within 6 weeks of childbirth		3
Known family history of leg vein clots (Deep Vein Thrombosis, DVT) or lung clots (Pulmonary Embolism, PE) in close family (brother, sister, mother, father)		3	Complex abdominal pelvic or lower limb surgery or pelvic fracture in last 6 weeks		3
<b>Total score of this column</b>			<b>Injury Specific Risk</b>	Tick	Score
			Ruptured achilles tendon		3
			<b>Total score of this column</b>		
			<b>Overall Total Score</b>		

- Please speak to a member of staff if you are unsure about the answer to any of these questions
- Once completed, please give this form to a member of staff

Score	Recommendation
0 - 2	Keep active and make sure that you drink plenty of water every day
3 or more	As above, a doctor will decide if you need enoxaparin (Clexane) 40mg once a day (as an injection) until the plaster cast is removed

Patient information leaflet received <input type="checkbox"/>	Date:
Patient name:	Signature:
Clinical Decision:	Staff Name: Date:
<input type="checkbox"/> No Prophylaxis required.	Signature:
<input type="checkbox"/> Enoxaparin 40mg daily prescribed.	

version 3 agreed by Thrombosis Committee Nov 13

Medical Illustration ref: 12/2586

### EQUALITY IMPACT SCREENING TOOL

To be completed and attached to any procedural document when submitted to the appropriate committee for consideration and approval for service and policy changes/amendments.

#### Stage 1 - Screening

<b>Title of Procedural Document:</b> Policy for reducing the risk of Venous Thromboembolism (VTE) in adult patients admitted to hospital			
<b>Date of assessment</b>	1/11/16	<b>Responsible Department</b>	Clinical Support
<b>Name of person completing assessment</b>		<b>Job Title</b>	Clinical Nurse Specialist – Venous thromboembolism

Does the policy/function affect one group less or more favourably than another on the basis of :

	Yes/No	Comments
• Age	No	
• Disability	No	
Learning disability; physical disability; sensory impairment and/or mental health problems e.g. dementia		
• Ethnic Origin (including gypsies and travellers)	No	
• Gender reassignment	No	
• Pregnancy or Maternity	No	
• Race	No	
• Sex	No	
• Religion and Belief	No	
• Sexual Orientation	No	

If the answer to any of the above questions is NO, the EIA is complete. If YES, a full impact assessment is required: go on to stage 2, page 2

More Information can be found by following the link below

[www.legislation.gov.uk/ukpga/2010/15/contents](http://www.legislation.gov.uk/ukpga/2010/15/contents)

## Stage 2 – Full Impact Assessment

**What is the impact**

**Level of Impact**

**Mitigating Actions**  
(what needs to be done to minimise / remove the impact)

**Responsible Officer**

### Monitoring of Actions

The monitoring of actions to mitigate any impact will be undertaken at the appropriate level

Specialty Procedural Document:

Specialty Governance Committee

Clinical Service Centre Procedural Document:

Clinical Service Centre Governance Committee

Corporate Procedural Document:

Relevant Corporate Committee

All actions will be further monitored as part of reporting schedule to the Equality and Diversity Committee