HOSPITAL POLICY - Prevention and Treatment of VTE in Patients Admitted to Hospital

Doncaster and Bassetlaw Hospitals NHS
NHS Foundation Trust

Please Note: This policy is currently under review and is still fit for purpose.

Venous Thromboembolism (VTE) –

Prevention and Treatment of VTE in

Patients Admitted to Hospital

This procedural document supersedes and combines: PAT/T 44 v.2 – Prevention of

Venous Thromboembolism (VTE) – Deep Vein Thrombosis and Pulmonary Embolism in

Patients Admitted to Hospital and PAT/T 46 v.2 Guideline for the Management of Venous Thromboembolism

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Date written/ revised:	May 2014
Approved by:	Policy Approval and Compliance Group
Date of approval:	18 June 2014
Date issued:	2 July 2014
Next review date:	May 2017 – **Extended to November 2017**
Target audience:	Trust wide

Venous Thromboembolism (VTE) – Prevention and Treatment of VTE in Patients Admitted to Hospital

Amendment Form

Please record brief details of the changes made alongside the next version number. If the APD has been reviewed **without change**, this information will still need to be recorded although the version number will remain the same.

Version	**Date issued**	**Brief Summary of Changes**	**Author**
Version 3	2 July 2014	• This is a new policy – please read in full. • VTE Investigation and Treatment IPOC amended in response to 2012 NICE guidance on VTE. • New Patient Information Leaflets produced – see Appendix 7 and 8 **NOTE: supersedes: PAT/T 44 v.2** - Prevention of Venous Thromboembolism (VTE) - Deep Vein Thrombosis and Pulmonary Embolism in Patients Admitted to Hospital **and combines PAT/T 46 v.2** - Guideline for the Management of Venous Thromboembolism.	Stuti Kaul Ben Kumar Tracy Evans- Phillips Lee Wilson

Patients Admitted to Hospital

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1. INTRODUCTION

The House of Commons Health Committee reported in 2005 that an estimated 25,000 people in the UK die from preventable hospital-acquired venous thromboembolism (VTE) every year. This includes patients admitted to hospital for medical care and surgery. The inconsistent use of prophylactic measures for VTE in hospital patients has been widely reported.

VTE is a condition in which a blood clot (thrombus) forms in a vein. It most commonly occurs in the deep veins of the legs; this is called deep vein thrombosis. The thrombus may dislodge from its site of origin to travel in the blood – a phenomenon called embolism.

VTE is an important cause of death in hospital patients, and treatment of non-fatal symptomatic VTE and related long-term morbidities is associated with considerable cost to the health service.

The risk of developing VTE depends on the condition and/or procedure for which the patient is admitted and on any predisposing risk factors (such as age, obesity and concomitant conditions).

This guideline makes recommendations on:

1. Assessing and reducing the risk of VTE in patients in hospital. The recommendations take into account the potential risks of the various options for prophylaxis and patient preferences.
2. Management of VTE

The guideline assumes that prescribers will use a drug's summary of product characteristics to inform decisions made with individual patients.

2. PURPOSE

2.1 Prevention

- Patients (and relatives and carers as appropriate) should have the opportunity to be involved in decisions.
- All inpatients and day-case patients >18 years must undergo a mandatory risk assessment for the prevention of VTE.
- The risk assessment must be completed by a doctor or nurse and filed in the medical notes.
- The risk assessment should be undertaken on admission to hospital or at pre-operative assessment (if undergoing elective surgery), and again if the patient's clinical condition changes.
- The clinical decision on how to manage the risk of venous thromboembolism will be based on an assessment of the risks of VTE against the risks of preventative treatment for each individual patient and the decision will be informed by available published evidence. Following this the pharmacological and mechanical prophylaxis should be prescribed.
- This guideline provides guidance for the prevention of VTE based on recommendations in NICE clinical guideline 92 and the Report of the Independent Expert Working Group on the prevention of VTE in hospitalised patients as described above.
- This guideline was developed in consultation with all clinical directorates and specialities to allow for speciality specific recommendations.

2.2 Treatment

Patients (and relatives and carers as appropriate) should have the opportunity to be involved in decisions.

The clinical decision making regarding management of VTE should be made with consideration of the latest NICE guidance on DVT and PE.

If VTE is suspected, prescribers should follow the latest version of the Trust DVT & PE IPOC.

The DVT & PE IPOC contains the following sections

1. Renal impairment
2. Pregnancy (see also MSG 20)
3. IVDUs
4. Investigations for VTE associated with cancer
5. Thrombophilia testing
6. Mechanical interventions

3. DUTIES AND RESPONSIBILITIES

- All relevant healthcare professionals should give patients verbal and written information on the following, as part of their discharge plan.

The signs and symptoms of DVT and PE

The correct use of prophylaxis at home

The implications of not using the prophylaxis correctly.

- All relevant healthcare professionals should follow the DVT and PE IPOC when treating a patient with symptoms of VTE.
- Should clinical specialities subsequently wish to amend the specific guidance for the prevention of VTE in their speciality, application should be submitted to the VTE Treatment or Prophylaxis Group for consideration and if agreed, should be included as appendices to this guideline.

4. PROCEDURE

Pharmacological VTE prophylaxis

Dalteparin is the low molecular weight heparin (LMWH) recommended for use in Doncaster and Bassetlaw Hospitals NHS Trust for those indications for which it is licensed. Fondaparinux sodium should be used in individuals who are allergic to heparin.

4.1 Prevention

- All patients (age 18 and over) need to be risk assessed on admission to identify those who are at increased risk of VTE using either; the Generic VTE Risk Assessment (see Appendix 1), Women's VTE Risk Assessment (see Appendix 2) or if the patient has a lower limb cast in fracture clinic, the POP VTE Risk Assessment (see appendix 3).
- For guidance on completing the Generic VTE Risk Assessment, see Appendix 4
- For dosage recommendations for prescribing dalteparin, please see Appendix 5
- Patients on Orthopaedic wards use the Generic VTE Risk Assessment, however further details on pharmacological thromboprophylaxis and extended prophylaxis can be found on the following

link:http://www.dbh.nhs.uk/Library/Pharmacy_Medicines_Management/Formulary/Fo rmulary_S2/Orthopaedic_DVT_guidelines.pdf

- For further guidance on VTE prevention and prophylaxis, please follow the link for NICE

Clinical Guideline 92 – Venous Thromboembolism: Reducing the Risk

- All patients admitted to hospital as an Inpatient or Daycase (including maternity and orthopaedic patients) must receive the Trust's information leaflet "Preventing Blood Clots While You Are In Hospital" (WPR 30722) on admission to hospital. See Appendix

7.

4.2 Treatment

- All patients with symptoms of DVT or PE should be managed according to the DVT & PE IPOC (WPR 24522), see Appendix 8
- The algorithms in the Trust's IPOC present the most concise summarisation of the treatment guidance.
- All patients with diagnosed VTE must receive a copy of either the "DVT Patient Information Leaflet" (See appendix 9) or the "PE Patient Information Leaflet" (see appendix 10)
- For further guidance on VTE treatment, please follow the link below:

- Venous thromboembolic diseases: the management of venous thromboembolic diseases and the role of thrombophilia testing
- Formulary guidance and protocols on reversal of anticoagulation (including heparin, warfarin and rivaroxaban) can be found via:

http://www.dbh.nhs.uk/Library/Pharmacy_Medicines_Management/Formulary/For mulary_S2/Section%202.8.pdf

5. TRAINING/SUPPORT

	Staff Function	Training Needs	How Delivered
1	Staff who have general (none specific) role in delivery of care to patients	General Awareness	Posters/leaflets/ Trust publicity
2	Staff who deliver care to patients	General Awareness Fitting of Graduated Compression Stockings (GCS) On-going care of patient wearing GCS	As above PLUS Local Induction
3	Registered Staff who deliver care to patients (Inc AHP's)	General Awareness VTE disease process Contraindications to GCS Measuring and fitting of Graduated Compression Stockings (GCS) On-going care of patient wearing GCS Contraindications to dalteparin Administration of dalteparin	As above PLUS Local Induction

4	Medical staff	General Awareness VTE disease process Long term effects of VTE Contraindications to GCS Alternative methods of Mechanical compression. Contraindications to dalteparin Prescribing dalteparin On going care of patients on dalteparin	As above PLUS Induction. Completion of e-vte.org modules (optional)

6. MONITORING COMPLIANCE WITH THE PROCEDURAL DOCUMENT

Monitoring compliance				
Criteria	Monitoring	Who	Frequency	How reviewed
All patients admitted to the Trust as Inpatients or Daycases will have a VTE Risk Assessment	Monthly audit using pre-defined proforma (specific to VTE Risk Assessment used), auditing 20 sets of casenotes of patients with a current stay	Each specialty, lead by the Clinical Audit Lead within the CSU	Monthly rolling programme	Report sent to CSU for recommendations and action plans. Action plans and recommendations reviewed by VTE Prevention Group Compliance with monthly programme monitored by CA&E

All patients with hospital acquired VTE (within 3 months of admission) to have a RCA undertaken	Casenotes are located and reviewed to identify if the VTE was avoidable	Feedback letters sent to Primary Clinician to complete.	Reviewed on an individual case basis	Each outcome is shared with CSU, VTE Prevention Group and fed back to Trust via Medical Director.
Patients admitted with a VTE will have care according to the DVT & PE IPOC	Audit of compliance with the IPOC	Audit instigated by the Clinical Audit Lead for Haematology	Annual	Report reviewed by VTE Treatment Group and results disseminated to Trust via Clinical Directors

7. DEFINITIONS

CA&E Department of Clinical Audit and Effectiveness

CTPA Computed Tomographic Pulmonary Angiography

DVT Deep Vein Thrombosis

GCS Graduated Compression Stocking

GP General Practitioner

IPOC Integrated Pathway of Care

IVDU Intra-Venous Drug User

LMWH Low Molecular Weight heparin

NHS-LA National Health Service – Litigation Authority

NICE	National Institute for Health and Clinical Excellence
PE	Pulmonary Embolism
UFH	Un-Fractionated Heparin
USS	Ultra-Sound Scan
VTE	Venous Thrombo-Embolism

8. EQUALITY IMPACT ASSESSMENT

An Equality Impact Assessment (EIA) has been conducted on this procedural document in line with the principles of the Equality Impact Assessment Policy (CORP/EMP 27) and the Fair Treatment for All Policy (CORP/EMP 4).

The purpose of the EIA is to minimise and if possible remove any disproportionate impact on employees on the grounds of race, sex, disability, age, sexual orientation or religious belief. No detriment was identified. There are now nine protected characteristics:

- ■ Age
  ■ Disability
  ■ Gender reassignment
  ■ Marriage and civil partnership
  ■ Pregnancy and maternity
  ■ Race – this include ethnic or national origins, colour and nationality
  ■ Religion or belief
  ■ Sex, and;
  ■ Sexual orientation

A copy of the EIA is available on request from the Human Resources Department.

9. REFERENCES

1. Prevention of Venous Thromboembolism in Hospitalised Patients (2007)

Chief Medical Officer’s report from the Independent Expert Working Group

1. NICE clinical guideline 92: Venous thromboembolism, reducing the risk of venous thromboembolism in patients admitted to hospital (2010) http://guidance.nice.org.uk/CG92

1. Guidelines on the use and monitoring of heparin (2006) British Journal of Haematology **133**, 19 – 34

1. NICE clinical guideline 144 (see above for title/links)