The Walton Centre NHS
NHS Foundation Trust

Excellence in Neuroscience

VTE POLICY (1)

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Responsible Director:	**Director of Nursing & Governance**	
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Think of the environment…Do you have to print this out this document? **You can always view the most up to date version electronically on the Trust intranet.**

Executive Summary

Venous thromboembolism (VTE) is a condition in which a blood clot (a thrombus) forms in a vein. VTE is often asymptomatic and most commonly occur in the deep veins of the legs and pelvis as a deep vein thrombosis (DVT). A thrombus may dislodge from its site of origin to cause an embolism which may travel to the lungs as a pulmonary embolism (PE) and can be fatal.

Symptomatic venous thrombosis carries a considerable burden of morbidity, over the long term because of chronic venous insufficiency, which in turn can cause venous ulceration and development of a post-thrombotic limb.

The risk of developing VTE depends on both the condition and the procedure for which the patient is admitted contributory factors are;

- any predisposing risk factors
- the extent of immobilization
- The use or non-use of prophylaxis

Contents

1. Introduction

This guideline covers assessing and reducing the risk of venous thromboembolism for patients admitted with neurosurgical and neurological conditions. This group of patients are at increased risk due to the long duration of surgical interventions, long immobilization times, and possible neurological deficits. The Walton Centre NHS Foundation Trust is fully committed to reducing the risk of VTE for patients admitted to the Centre and will ensure treatment and care take into account patients' individual needs and preferences.

Risk assessment and treatment plans are supported by evidence based information allowing patients to make informed decisions about their care.

This guidance reflects the current state of knowledge, as set out in the health care literature, regarding the effectiveness and appropriateness of procedures and practices designed to predict and prevent VTE.

Timing of prophylaxis is based on the type of procedure, prophylaxis selection, and clinical judgment regarding the impact of patient risk factors. The optimal start of pharmacologic prophylaxis in surgical patients varies and must be balanced with the efficacy-versus-bleeding potential.

A change in practice from previous guidance is if using mechanical VTE prophylaxis for people undergoing cranial surgery, start it on admission. Choose either:

- anti-embolism stockings or
- intermittent pneumatic compression

There are exclusions within compliance to this policy. Patients at risk of or actively bleeding may be excluded from pharmacological prophylaxis; however, there should be physician documentation of this risk and mechanical prophylaxis should be used. Reasons for not administering pharmacological prophylaxis can include;

- Active bleeding (gastrointestinal bleeding, cerebral haemorrhage, retroperitoneal bleeding.
- Bleeding risk, haemorrhage, patients on continuous IV heparin therapy, thrombocytopenia
- Patient refusal.

2. Scope

2.1. The purpose of this document is to set out the organisational arrangements for implementing national best practice in relation to VTE, within the Walton Centre NHS Foundation Trust.

2.2. This policy applies to all patient admitted to the Trust other than those groups of patients who, as a cohort, are considered to be low risk of VTE.

2.3. This is general guidance and, as ever, clinical judgement in individual patients is required.

3. Definitions

- Venous thromboembolism (VTE) - a blood clot that has broken loose travels in the circulation
- Thrombosis - is a term for a blood clot occurring inside a blood vessel
- Deep vein thrombosis - (DVT), is a blood clot in the deep veins of the leg.

- Pulmonary embolism - (PE), a blood clot in the lungs
- Prophylaxis - treatments employed to prevent VTE.
- Sequential Compression devices a method of mechanical prophylaxis that includes an air pump and inflatable leg garments in a system designed to improve venous circulation in the legs of patients at risk of VTE
- Dalteparin (Fragmin) - a Low Molecular Weight heparin (LMWH) solution for subcutaneous (SC) administration is the preferred pharmacological prophylaxis at the Walton Centre.
- Significant reduced mobility-patients – are patients who are bed-bound, unable to walk unaided or likely to spend a substantial proportion if their day in bed or in a chair.

4. Duties

4.1. Matrons / Departmental Manager will ensure:

- that staff working in all areas for which that manager has responsibility are fully conversant and adhere with the thromboprophylaxis guidance
- that guidance is accessible to their staff via intranet
- that staff members have received appropriate education and training including identification of patients at risk, correct fitting of compression hosiery and use of sequential compression devices
- that they make staff aware of any changes or revisions to the guidance
- that patient information is available in the ward/department and is given to patients as required

4.2. Consultant Medical Staff will ensure:

- that all junior medical staff are aware of and correctly adhere to all aspects of the policy

4.3. Individual clinical staff

- it is the responsibility of individual clinical staff to ensure that no act or omission on their part places an individual at risk of developing VTE

5. VTE risk assessment

5.1. Initial VTE risk assessment should be performed within 6 hours of admission by the admitting nurse using the VTE risk assessment tool on EP2.This risk assessment should be communicated to the medical team and the need for pharmacological prophylaxis discussed. Following risk assessment all Interventions and treatment plans should be clearly documented in the medical and nursing notes.

5.2. Reassess all patients for risk of VTE and bleeding at the point of consultant review or if their clinical condition changes.

5.3. The identification of two or more risk factors during assessment indicates the patient to be at ‘high risk of VTE’. The risk factors contained in this tool are not exhaustive; clinicians may consider additional risks in individual patients and offer prophylaxis as appropriate.

5.4. Pharmacological prophylaxis should be prescribed on EPMA .Prescribing responsibility lies with accredited prescribers responsible for the patient. Dalteparin (Fragmin) solution 5000 units for subcutaneous administration (SC), is the preferred pharmacological prophylaxis at the WCFT. This must be balanced with the efficacy-versus-bleeding potential.

5.5. If VTE prophylaxis is not appropriate at time of assessment but patients are considered high risk e.g. due to going to theatre – add dummy drug on EPMA," VTE prophylaxis not currently indicated – review in 24hours'.

5.6. If VTE prophylaxis is not required e.g. patient mobile – add dummy drug 'VTE prophylaxis not currently indicated.'

5.7. Patients with risk factors for bleeding will not be offered pharmacological VTE prophylaxis unless the there is a medical decision that the risk of VTE outweighs the risk of bleeding.

5.8. Members of the multidisciplinary team will facilitate patients to mobilise as soon as possible.

5.9. It is the responsibility of nursing staff to reassess patients' risks of VTE and bleeding every seven days (sooner if the clinical situation changes) or if the patient is transferred between wards. This will ensure that the methods of VTE prophylaxis being used are suitable, ensure that prophylaxis is being used correctly and identify adverse events resulting from VTE prophylaxis.

5.10. Do not offer anti-embolism stockings to patients who have:

- Suspected or proven peripheral arterial disease;
- Peripheral arterial bypass grafting
- Any local conditions in which stockings may cause damage, (fragile tissue paper skin dermatitis, gangrene or recent skin graft).
- Known allergy to material of manufacture;
- Cardiac failure; severe leg oedema or pulmonary oedema from congestive heart failure;
- Unusual leg size or shape; major limb deformity preventing correct fit.

5.11. **Neurology patients**

5.11.1 Regard medical patients as being at increased risk of VTE if they have had or are expected to have:

- Significantly reduced mobility for 3 days or more
- Expected to have ongoing reduced mobility relative to their normal state
- Have two or more of the stated risk factors.

5.11.2 All patients at risk should be prescribed low molecular weight heparin as the default option unless there are contraindications or where the bleeding risk outweighs the risk of VTE.

5.11.3 If the risk of bleeding outweighs the risk of VTE, intermittent pneumatic compression devices should be used for mechanical VTE prophylaxis and **NOT** TED stockings

Do not offer anti-embolism stockings for VTE prophylaxis to patients who are admitted for stroke. Discuss with the responsible parent team.

5.12. **Surgical patients**

Studies have shown that the use of antithrombotic prophylaxis in neurosurgical interventions lowers the DVT incidence from 30 % to between 1.5 - 6%. Neurosurgeons must assess the risk of postoperative bleeding from prophylaxis against the risk of VTE.

5.12.1 Regard surgical patients as being at increased risk of VTE if they meet one of the following criteria:

- Surgical procedure with a total anaesthetic and surgical time of more than 90 minutes.
- Expected significant reduction in mobility

- Have one or more of the stated risk factors.

5.13. **For patients undergoing Cranial Surgery**

Offer mechanical VTE prophylaxis on admission to all patients undergoing spinal surgery with either:

- anti-embolism stockings or
- Sequential compression devices

5.13.1 LMWH should be introduced at 24-48hr post-op UNLESS THE CONSULTANT STATES OTHERWISE.

5.13.2 Do not offer pharmacological VTE prophylaxis to people with cranial vascular malformations, intracranial haemorrhage (spontaneous or traumatic) until the lesion has been secured or the condition has stabilised. Prescribers must follow the instructions of the treating consultant at all times (usually liaising with the endovascular consultant).

5.13.3 VTE prophylaxis will be continued until the patient is either discharged home or transferred to another hospital or place of care for ongoing treatment and care.

5.14. **For all patients undergoing spinal surgery (including complex spinal patients):**

Offer mechanical VTE prophylaxis on admission to all patients undergoing spinal surgery with either:

- anti-embolism stockings or
- Sequential compression devices.

Continue for 30 days or until the patient is mobile or discharged, whichever is sooner.

- LMWH to be started at 24 hours for anterior/posterior surgical patients and to be continued for 30 days, or until mobile or discharged.

5.15. **For all patients admitted to critical care, including (major trauma patients).**

Regard critical care patients including those with multiple traumas as being at increased risk of VTE.

- Surgical procedure with a total anaesthetic and surgical time of more than 90 minutes.
- Expected significant reduction in mobility
- Have one or more of the stated risk factors
- Reassess risks of VTE and bleeding daily for patients in critical care, this should be documented on the daily review sheet.
- Take into account planned interventions and other therapies which may increase risk of complications.
- Provide LMWH and mechanical VTE prophylaxis to patients admitted to critical care as per the neurology and surgical guidance.
- LMWH in critical care should be prescribed according to the patients' weight. (See below).

Weight	**<50kg**	**50-100kg**	**100-150kg**	**>150kg**
Dalteparin Dose	2500 units OD*	5000 units OD	7500 units OD*	5000 units BD*

5.16. **Extended VTE prophylaxis beyond discharge.**

NICE NG 89 states to offer pharmacological VTE prophylaxis for a minimum of 7 days for certain categories of patients whose risk of VTE outweighs their risk of bleeding.

This infers that these categories of patients whose hospital inpatient stay is less than 7 days be discharged with the remaining course length of LMWH to complete at home.
.
The British Society of Haematology (BSH) and the VTE Exemplar Centre Network has formally questioned the evidence base behind the NICE recommendations in NICE NG 89 within NHS acute trusts.

Based on the current international published evidence base, and opinion of learned societies it is recommended that the Walton Centre Foundation Trust does not implement NICE NG 89 recommendation in in relation to prophylaxis beyond discharge. This non-compliance of NICE NG 89 should be reviewed annually.

5.17. VTE prophylaxis for day case procedures

There are groups of patients who, as a cohort, are considered to be low risk of VTE. These patients have a similar risk profile, and have been assessed, as a group by the Medical Director, as being at low risk of VTE using the DH/NICE risk assessment categories and are consistent with detailed NICE guidance.

The following patients do **NOT** require consideration of VTE prophylaxis, either pharmacological or non-pharmacological:

- Patients on the Pain Management Programme
- Patient having drug infusions as a day case
- Patients having minor procedures lasting less than 90 minutes with local or regional anaesthetic with or without sedation (but not general anaesthesia), which will include:
- most interventional pain day case procedures;
- skin, muscle, nerve and temporal artery biopsies;
- Investigations such as EEG, EMG/NCS, evoked potentials.
- Patients having testing and adjustment of deep brain or spinal stimulators for control of pain or movement disorders.
- Patients having lumbar punctures and myelograms (unless done under general anaesthesia).
- If any patients are being treated with oral anticoagulation, their treatment will be bridged according to protocol. Click link

For the WCFT day cases the following patients **DO** require *consideration* of non-pharmacological VTE prophylaxis,

Those patients undergoing:

- Angiography
- MRI with GA
- Vertebroplasty
- Stereotactic Biopsies
- ENT patients from Ward 28 Aintree for Embolisation

This is general guidance and, as ever, clinical judgement in individual patients is required.

6. Lumbar Puncture (LP) in anticoagulated patients

Venous thromboembolism may occur in patients who had VTE prophylaxis withdrawn inappropriately.

	Prophylactic dose LMWH	Treatment dose LMWH
Day -1	Give prophylactic dose (provided there is a minimum of 12 hour delay between dose and procedure).	OMIT (minimum of 24 hour delay required between dose and procedure).
Day of procedure	OMIT	OMIT
Day +1	Restart 18-24 hours post procedure.	Restart 18-24 hours post procedure.

7. Procedure to be followed if VTE is suspected.

7.1.1 Acute venous thromboembolism should be suspected in patients with a combination of predisposing factors and suggestive symptoms or signs of either DVT or PE .It should be noted that some patients with proven PE do not have clinically evident DVT.

7.1.2 Diagnostic imaging should be performed expeditiously in patients with suspected VTE. The medical staff should discuss Doppler Ultrasound Scan or Computerised Tomography Pulmonary Angiogram with a Radiologist to minimise exposure to the risks of inappropriate continued full-dose anticoagulation in those patients in whom venous thromboembolism is not confirmed.

8. Management of the Patient once a positive diagnosis has been made.

8.1.1 In clinically suspected DVT or PE, a member of the medical team should assess the patient to identify the appropriate diagnostic tests required. The tests required should be documented in the patient's case notes.

8.1.2 Clinicians should refer to the Trust 'guideline on initiation, continued treatment, monitoring and provision of information for patients receiving oral and parenteral anticoagulant therapy. Click link

8.1.3 Decisions, regarding choice of therapy and patient counselling should be documented in the patient's case notes.

8.1.4 If VTE is confirmed an Incident form should be completed and a root cause analysis commenced.

9. Consideration of an IVC Filter

9.1.1 Inferior Vena Cave Filter may be considered in patients with VTE where there is a contra indication to anticoagulation or where there has been a recurrent VTE despite adequate anticoagulation

The main indications for IVC filter are:

- Pulmonary embolism with a contraindication to anticoagulation.
- Recurrent pulmonary embolism despite adequate anticoagulation.
- DVT with a contraindication to anticoagulation
- Patients with a DVT at high risk of pulmonary embolism such as patients with pulmonary hypertension.

Any patient who is thought to require an IVC filter should be discussed with one of the Interventional Radiologists at Aintree University Hospital.

This should then be discussed with Walton Centre Radiologist to ensure an interventional suite is available.

10. Giving information and planning for discharge.

On admission and before starting VTE prophylaxis, ensure that patients and their families and carers understand the reason for having a risk assessment for VTE and bleeding.

For patients who are at increased risk of VTE give them and their family members or carers verbal and written information on the following before offering VTE prophylaxis.

- The patients' risks and possible consequences of VTE
- The importance of VTE prophylaxis and its possible side effects.
- The correct use of VTE prophylaxis, anti-embolism stockings and intermittent pneumatic compression sleeves.
- How patients can reduce their risk of VTE, such as keeping well hydrated and if possible becoming mobile early.
- Patients should be aware that heparins are of animal origin and this may be of concern to some people. See appendix 3.
- As part of the discharge plan, patients and/or their families or carers should be offered verbal and written information on; signs and symptoms of deep vein thrombosis and pulmonary embolism. The information should include the importance of seeking medical help and who to contact if deep vein thrombosis, pulmonary embolism is suspected. See patient information leaflet in Appendix 2.

11. Training

Please refer to Appendix 1 of the Trust Corporate Induction and Mandatory Training Policy for a full list of staff groups to receive training.

12. Monitoring

The table below demonstrates the monitoring arrangements in place for Venous Thromboembolism which describes the process for managing the risks associated with the prevention and management of venous thromboembolism.

Minimum requirement to be monitored	Process & frequency of monitoring	Responsible individual to undertake audit/ report	Responsible group/ committee for review of results	Responsible group/ committee for monitoring of any action plans and implementation
How patients are assessed for their risk of developing VTE (incl timescales)	Monthly Balance score card	Ward managers	Patient Safety Group	Patient Safety Group
Procedure to be followed if VTE is suspected	Annual audit	Clinical Quality Lead	Patient Safety Group	Patient Safety Group
Management of the patient once a positive diagnosis has been made	Annual audit	Clinical Quality Lead	Patient Safety Group	Patient Safety Group

13. References

- Venous thromboembolism in over 16 s: reducing the risk of hospital –acquired deep vein thrombosis or pulmonary embolism. (last modified 2018)

- Layton KF, Kallmes DF, Horlocker TT. Recommendations for anticoagulated patients undergoing image-guided spinal procedures. AJNR 2006;27:467-71.

13.1. Supporting policies/documents

- Trust Corporate Induction and Mandatory Training Policy.
- Anticoagulation policy
- Medicines policy
- Medical devices policy

Appendix 1 - Risk Assessment for Venous Thromboembolism (VTE)

<Name>	DoB	
<Gender>	NHS No	
	Pat Ref	
Initial – Assessment Submitted on/by	Pat Type	
<Date>	Admission date	
<Name of Assessor>	Consultant	
<Ward>	Specialty	

Surgical Patient	Medical Patient expected to have on going reduced mobility relative to normal state	Medical Patient **NOT** expected to have on going reduced mobility relative to normal state

THROMBOSIS RISK	
Patient Related Information	
Active Cancer or Cancer Treatment	
Patient age > 60 years	
Dehydration	
Known thrombophilias	
Obesity (BMI more than 30kg/m2)	
One or more significant medical co-morbidities	
Personal or 1st degree history relative to VTE	
Use of Hormone Replacement Therapy (HRT)	
Use of Oestrogen-Containing Contraception Therapy	
Varicose Veins with phlebitis	
Pregnancy or less than 6 weeks post-partum	
Admission Related Information	
Significantly Reduced Mobility for 3 or more days	
Hip or Knee replacement	
Hip Fracture	
Total Anaesthetic + Surgical Time > 90 min	
Surgery involving pelvis/lower limb with total anaesthetic + Surgical Time > 90 min	
Acute Surgery with Inflammatory/intra-abdominal condition	
Critical Care Admission	
Surgery with significant reduction in mobility	
BLEEDING RISK	
Patient Related Information	
Active bleeding	
Acquired bleeding disorder (such as acute liver fracture)	
Concurrent Use of Anti-Coagulants known to increase risk of bleeding	
Acute Stroke	
Thrombocytopenia	
Uncontrolled Systolic Hypertension (230/120 mmHg or higher)	
Untreated Inherited bleeding disorder	
Admission Related Information	
Neuro-Surgery, Spinal or Eye Surgery	
Other Procedure with high bleeding risk	
Lumbar Puncture/epidural/spinal anaesthesia expected within the next 12 hours	

THROMBOSIS RISK	
Lumbar Puncture/epidural/spinal anaesthesia within the previous 4 hours	

<Name>	DoB	
<Gender>	Past Ref	
<Ward>	Admission Date	

		LOW RISK OF VTE	HIGH RISK OF VTE (with low risk of bleeding)	HIGH RISK OF VTE (with 'significant' risk of bleeding)
Neurology Patients	Recommended prophylaxis	Early mobilisation	Early mobilisation Low Molecular Weight heparin according to efficacy-versus-bleeding potential after discussion with parent team. Decision to be documented. Do not offer Neurology patients TED stockings. **Only consider mechanical prophylaxis with compression sleeves when anticoagulation contraindicated.**	Early mobilisation Low Molecular Weight heparin according to efficacy-versus-bleeding potential after discussion with parent team. Decision to be documented. Do not offer Neurology patients TED stockings. **Only consider mechanical prophylaxis with compression sleeves when anticoagulation contraindicated.**
Neurosurgery Patients	Recommended prophylaxis	Early mobilisation	Early mobilisation Consider either TED stockings or sequential compression devices dependent on mobility Low Molecular Weight heparin according to efficacy-versus-bleeding potential after discussion with parent team. Decision to be documented	Early mobilisation TED stockings or sequential compression device dependent on mobility. Take into account interventions that may increase bleeding risk **Do not** offer Low Molecular Weight heparin until lesion is secured or condition stabilised
Patients admitted to Critical Care Unit	Recommended prophylaxis	Early mobilisation	Consider either TED stockings or sequential compression devices. If risk of VTE outweighs risk of bleeding: Low Molecular Weight heparin based on patient's weight.	Re-assess risks of VTE and bleeding together with prophylaxis regime daily.

Date	<TODAY/>	<Day 2>	<Day 3>	<Day 4>	<Day 5>	<Day 6>	<Day 7>*
TED stockings							
Sequential Compression Device used							
LMW Heparin used							
Comments:							

*Please enter dates for the rest of the week and tick which intervention has been provided each day *ensure re-assessment is completed at day 7 or if condition changes*

Assessment completed on Admission	Reassessment completed
Name: **Date:** **Signed:**	**Name:** **Date:** **Signed:**
Further Assessment recommended	Further Assessment recommended

Appendix 2 - Patient Information Leaflet

Preventing Venous Thrombosis (blood clots). Patient Information.

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What is a venous thrombosis?

A blood clot within a vein is known as a venous thrombosis, and the most common type of venous thrombosis is a **deep vein thrombosis** (DVT) in the leg.

When this happens, if the DVT blocks all the blood vessel then all the tissues drained by the vein can become swollen and painful due to the blood being unable to escape.

A major concern is that someone with a DVT may develop a **pulmonary embolism**.

This is where part of the clot (an embolus) may break off, travel up the body and through the heart to the lungs, block in an artery. This can cause breathlessness and chest pain.

This is a potentially life-threatening condition and up to one in ten people who suffer a serious pulmonary embolism will die if it is not treated.

Who is at risk?

Just being unwell and in hospital leads to an increase in the risk of deep vein thrombosis, or a blood clot, usually in the deep veins of the leg. This may be due to the fact that you are not mobilising as much as normal.

The risk is higher if you're having cranial / spinal surgery or have reduced mobility in critical care. Patients who become unwell and less active than normal are also at risk.

Although a deep vein thrombosis (DVT) may cause swelling and discomfort at the time, more than half are clinically 'silent' and there may be no obvious symptoms.

In the longer term, the DVT can also lead to post-phlebitic syndrome – swelling, pain, dermatitis, cellulitis, varicose veins, pigmentation of the skin and eventually chronic ulceration of the lower leg.

Prevention of a DVT, pulmonary embolism and post-phlebitic syndrome in hospital can be simple and very straightforward.

How can you reduce the risk of venous thromboembolism in hospital?

On admission all patients will be risk assessed and given appropriate prevention if necessary – this is called Thromboprophylaxis.

The risk of DVT does vary enormously. For example, if you are admitted as a day case for a minor operation under local anaesthetic, then the risk is reduced.

The standard method we use for risk assessment is for a nurse or junior doctor to use a scoring system where risk factors can be checked. The risk factors include (amongst others):

- Are you over the age of 60?
- Do you, or do any members of your family, have a previous history of DVT or thrombosis?

- Are you overweight, or have you previously had cancer? Heart problems, lung problems or an inflammatory bowel or joint problem?
- Are you being given a general anaesthetic?
- Is there any reason not to give you thromboprophylaxis, such as a low platelet count, you are already on anticoagulants or you have a bleeding or clotting disorder?

Depending on the answers given, our hospital policy is to use the following (either on their own or as a combination):

- Compression stockings
- Inflatable sleeves
- Blood thinning injections (blood thinner)

Compression stockings are elasticated and increase blood flow in your legs. You will need to be measured to ensure they fit correctly. The stockings should be removed at least daily to allow for bathing and to check the skin.

You should not however wear them if you have dermatitis, gangrene, leg ulcers, cellulitis, nown allergies to stockings, gout, recent skin grafts, nerve or circulation problems in your legs or leg swelling (oedema) or deformity.

The team may ask you to wear inflatable sleeves around your calf or on your feet; these inflate at regular intervals to increase the blood flow.

The use of **blood thinning injections** is common and most people do not have any problems. However, like many medications it may sometimes cause side effects.

The most common of these include pain, skin rashes and/or minor bruising at the site of your injection.

If you feel that you do not want this treatment or wish to discuss this further then please tell either the nurses or doctors in your ward who will note this in your records.

Other things which may be useful to prevent DVT during your hospital stay include:

- stay as mobile as your condition or pain allows
- if you are confined to bed you will be encouraged to do leg exercises
- drinking fluids regularly or as directed by the nursing staff so you do not become dehydrated

What will happen when I am discharged from hospital?

Most people have the injections discontinued and stop using the stockings once they are fit and ready for discharge.

Some patients however may need to continue with either the blood thinning injections and/or the stockings.

If this is the case your ward team will inform you of this and make any necessary arrangements for this (e.g. giving you the medications / stockings, and arrange for District Nurses to give the injections etc).

Following discharge you should be aware of the risk of developing blood clots especially in the first few weeks.

<u>Symptoms of deep vein thrombosis</u>

Unfortunately 80% of people with DVT may not have any obvious symptoms at all. The most common symptoms include pain, tenderness and swelling of the leg, usually in the calf.

Discolouration of the leg is less common. If thrombosis occurs in the thigh veins, the whole leg may be swollen.

Symptoms of pulmonary embolism

The main symptoms of pulmonary embolism are shortness of breath and chest pain.

Occasionally patients may become clammy and have unexpected dizzy or panicky episodes; with or without a persistent cough.

Appendix 3 - Information for staff re porcine blood thinning products.

Patients may ask staff about alternative blood thinning injections if they do not wish to receive products that are derived from pork.

For religious beliefs:

The World Health Organisation (WHO) has reported on the advice of over 100 Islamic Legal Scholars who have determined that the transformation of pork products into gelatin alters them sufficiently to make it permissible for observant Muslims to receive vaccines containing pork gelatin and to take medicine packaged in gelatin capsules.

It is therefore likely that the LMWH products although containing porcine ingredients are sufficiently transformed for them to be allowed in Islamic law, maybe this is something that the patient could discuss with their Imam.

Other beliefs (e.g. Vegan):

If a patient raises a concern about the presence of animal products then we have a responsibility to check all the medications that they are currently taking.
These would need to be reviewed individually at the time the concern was raised. Staff should discuss and seek advice from the ward pharmacist.

Appendix 4 - Equality Impact Assessment (EIA) Form

This section must be completed at the development stage i.e. before ratification or approval. For further support please refer to the EIA Guidance on the Equality and Diversity section of the Intranet.

Part 1

1. Person(s) Responsible for Assessment: [redacted] 2. Contact Number: [redacted]

3. Department(s): Governance 4. Date of Assessment: 24/10/19

5. Name of the policy/procedure being assessed: Venousthromboembolism (VTE) Policy

6. Is the policy new or existing?

New Existing X

7. Who will be affected by the policy (*please tick all that apply*)?

Staff X Patients X Visitors Public

8. How will these groups/key stakeholders be consulted with?
Communication from Consultant Medical staff, Senior Nursing team, Allied Health Professional leads.

9. What is the main purpose of the policy? Identify patients at risk of and reduce the incidence of VTE.

10. What are the benefits of the policy and how will these be measured? Reduction in harm to patients, - audit of VTE assessments/ Patient outcomes.

11. Is the policy associated with any other policies, procedures, guidelines, projects or services? Anticoagulation policy. Medicine policy

12. What is the potential for discrimination or disproportionate treatment of any of the protected characteristics?

Protected Characteristic	Positive Impact	Negative *(disadvantage or*	No Impact	Reasons to support your decision and evidence sought	Mitigation/adjustments already put in place

	(benefit)	***potential disadvantage)***			
Age			X		
Sex			X		
Race			X		
Religion or Belief		Some patients may refuse blood thinning injections if they do not wish to receive products that are derived from pork		The World Health Organisation (WHO) has reported on the advice of over 100 Islamic Legal Scholars who have determined that the transformation of pork products into gelatin alters them sufficiently to make it permissible for observant Muslims to receive vaccines containing pork gelatin and to take medicine packaged in gelatin capsules	It is therefore likely that the LMWH products although containing porcine ingredients are sufficiently transformed for them to be allowed in Islamic law, maybe this is something that the patient could discuss with their Imam.
Disability			X		
Sexual Orientation			X		
Pregnancy/maternity			X		
Gender Reassignment			X		
Marriage & Civil Partnership			X		

Vegan		Some patients may refuse blood thinning injections if they do not wish to receive products that are derived from pork	X	If a patient raises a concern about the presence of animal products then we have a responsibility to check all the medications that they are currently taking.	These would need to be reviewed individually at the time the concern was raised Staff should discuss and seek advice from the ward pharmacist

If you have identified no negative impact for all please explain how you reached that decision and provide reference to any evidence (e.g. reviews undertaken, surveys, feedback, patient data etc.)

13. Does the policy raise any issues in relation to Human Rights as set out in the Human Rights Act 1998?

If you have identified negative impact for any of the above characteristics, and have not been able to identify any mitigation, you MUST complete Part 2, please see the full EIA document on the Equality and Diversity section of the Intranet and speak to the EDI Lead or Safeguarding Matron for further support.

Action	Lead	Timescales	Review Date

Declaration

I am satisfied this document/activity has been satisfactorily equality impact assessed and the outcome is:

No major change needed – EIA has not identified any potential for discrimination/adverse impact, or where it has this can be mitigat & all opportunities to promote equality have been taken ☒

Adjust the policy – EIA has identified a need amend the policy in order to remove barriers or to better promote equality ☐
You must ensure the policy has been amended before it can be ratified.

Adverse impact but continue with policy – EIA has identified an adverse impact but it is felt the policy cannot be amended. ☐
You must complete Part 2 of the EIA before this policy can be ratified.

Stop and remove the policy – EIA has shown actual or potential unlawful discrimination and the policy has been removed ☐

Name: P. Crofton Date: 24/102019

Appendix 5 - Policy approval checklist

The VTE Policy is presented to the CESG for Approval.

In order for this policy to be approved, the reviewing group must confirm in table 1 below that the following criteria is included within the policy. Any policy which does not meet these criterion should not be submitted to an approving group/committee, the policy author must be asked to make the necessary changes prior to resubmission.

Policy review stage

Table 1

The reviewing group should ensure the following has been undertaken:	**Approved?**
The author has consulted relevant people as necessary including relevant service users and stakeholders.	Yes
The objectives and reasons for developing the documents are clearly stated in the minutes and have been considered by the reviewing group.	Yes
Duties and responsibilities are clearly defined and can be fulfilled within the relevant divisions and teams.	Yes
The policy fits within the wider organisational context and does not duplicate other documents.	Yes
An Equality Impact Assessment has been completed and approved by the HR Team.	Yes
A Training Needs Analysis has been undertaken (as applicable) and T&D have been consulted and support the implementation	Yes
The document clearly details how compliance will be monitored, by who and how often.	Yes
The timescale for reviewing the policy has been set and are realistic.	Yes
The reviewing group has signed off that the policy has met the requirements above.	Yes

Reviewing group chairs name: [redacted]	**Date:**

Policy approval stage

☐ **The approving committee/group approves this policy.**

☐ **The approving committee/group does not approve the policy.**

Actions to be taken by the policy author:

Approving committee/group chairs name: [redacted]	**Date: October 2019**

Appendix 6 - Version Control

Version	Section/Para/ Appendix	Version/description of amendments	Date	Author/Amended by
1.0	All	Review at Expiry date	July 15	[redacted]
2.0	All	Require extension due to introduction of revised NICE Guidance	Sept 15	[redacted]
3.0	All	Full review at expiry date	Oct 19	[redacted]

Translation Service

This information can be translated on request or if preferred an interpreter can be arranged. For additional information regarding these services please contact The Walton centre on [redacted]

Gellir gofyn am gael cyfieithiad o'r deunydd hwn neu gellir trefnu cyfieithydd ar y pryd os yw hynny'n well gennych. I wybod rhagor am y gwasanaethau hyn cysylltwch â chanolfan Walton ar 0151 [redacted]

هذه المعلومات يمكن أن تُتَرْجَم عند الطّلب أو إذا فضّل المترجم يمكن أن يُرَتَّب للمعلومة الإضافيّة بخصوص هذه الخدمات من فضلك اتّصل بالمركز ولتون على [redacted]

ئەم زانیاریە دەکرێت وەربگێڕدرێت کاتێك کە داواکرێت یان ئەگەر بەباش زاندرا دەکرێت وەرگێڕێك ئامادە بکرێت (ڕێك بخرێت) ، بۆ زانیاری زیاتر دەربارەی ئەم خزمەتگوزاریانە تکایە پەیوەندی بکە بە Walton Centre بە ژمارە تەلەفۆنی ١٥١٥٢٥٣٦١١ .

一经要求，可对此信息进行翻译，或者如果愿意的话，可以安排口译员。如需这些服务的额外信息，请联络Walton中心，电话是: [redacted]