Cumbria Partnership NHS
NHS Foundation Trust

Venous Thromboprophylaxis (VTE) Policy

Document Summary

The intention of this policy is to ensure that all adult patients and service users of Cumbria Partnership Foundation NHS Trust are assessed for risk of venous thrombosis embolism (VTE) on admission to hospital and receive adequate and appropriate anti thrombotic care to guard against the risk of unnecessary harm arising out of VTE. It also ensures this care activity forms a documented part of overall care.

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ACCOUNTABLE DIRECTOR	Director of Quality and Nursing
POLICY AUTHOR	Assessment Service Manager

Important Note:

The Intranet version of this document is the only version that is maintained.

Any printed copies should therefore be viewed as “uncontrolled” and, as such, may not necessarily contain the latest updates and amendments.

Note – This policy is for Community Services.
Mental Health Care Group are working on a toolkit to be used alongside the policy. It will be added as an appendix at a later date.

TABLE OF CONTENTS

1. SCOPE

This Policy applies to all staff providing care within CPFT in patient services. The main target audience is Nursing Staff dealing with the clinical care of patients on a day to day basis, Medical staff who will be required to undertake the risk assessment and provide prescribing guidance on what to administer to patients and Pharmacy staff.

2. INTRODUCTION

An estimated 25,000 people in the UK die from preventable hospital-acquired venous thromboembolism (VTE) every year. Treatment of non-fatal symptomatic VTE and related long term morbidities is associated with considerable cost to the health service.

The Guidance in this policy has been produced in line with National Institute of Clinical guidelines (NICE) CG92, a full version of which can be found at http://guidance.nice.org.uk/CG92.

https://www.nice.org.uk/guidance/ng89

Additionally, the policy has been reviewed to ensure that it complies with NICE Quality Standard 29 – Quality Standard for diagnosis and management of venous thromboembolic diseases (March 2013) which may be found at guidance.nice.org.uk/qs29.

3. STATEMENT OF INTENT

This Policy is designed to ensure a systematic process is in place which ensures that every Patient / Service User being admitted within CPFT inpatient facilities has a Venous Thromboembolism (VTE) risk assessment within 24 hours of direct admission, and where clinically indicated are prescribed thromboprophylaxis suitable to their personal risk and existing conditions.

4. DEFINITIONS

Venous thromboembolism: (VTE)

- Venous thrombosis is a condition in which a blood clot (thrombus) forms in a vein in any part of the venous system.
- The thrombus can reduce blood flow through the affected vein, causing pain and swelling.
- Venous thrombosis most commonly occurs in the ‘deep veins’ in the legs, thighs, or pelvis. This is known as a deep vein thrombosis

(DVT).

- When a part or all of the thrombus in the deep vein breaks off from the site where it is created and travels through the venous system. This is known as an embolism.
- A dislodged thrombus that travels to the lung is known as a pulmonary embolism (PE).
- However, deep vein thrombosis (DVT) and PE are the most common manifestations of venous thrombosis. DVT and PE are known as venous thromboembolism (VTE).

Thromboprophylaxis: Thromboprophylaxis is the treatment to prevent blood clots forming in veins.

5. DUTIES

Chief Executive

The Chief Executive has board responsibility for promoting patient safety within Cumbria Partnership NHS Foundation Trust

Medical Director

The Medical Director has overall clinical responsibility for medical staff compliance with VTE guidance

Medical Staff & Advanced Practitioners

Medical Staff are responsible for;

- Initial risk assessment of patients Prescribing appropriate
- prophylaxis Review of prophylaxis
- Instigation of incident reporting of any VTE cases and participation in
- root cause analysis
- Participation in clinical audit and routine review of compliance with VTE guidance

Pharmacist

- Support the selection of appropriate pharmacological prophylaxis products for local use
- Review inpatient therapy to check that risk assessment has been undertaken and that the appropriate prescription-right medicine, right dose has been written
- Contribute to the medicines reconciliation process required to ensure the patient's inpatient regimen is properly informed by the medicines they were taking at home
- Contribute to the training of healthcare team with particular focus on

pharmacological issues and questions that may arise about concurrent prescribing
- Support clinical audit and routine review of compliance with VTE guidance

Associate Director of Nursing

Overall clinical responsibility for Nursing staff compliance with VTE guidance & locally agreed protocols

Network Managers

Network Managers will ensure that a system is in place within the services they are responsible for, for the implementation of this policy and for monitoring its effectiveness.

This will include:
- Clinical audit, where they are required by this policy.
- Provision of, and attendance at, staff training, where indicated by the Mandatory Training.
- Provision of equipment, where this is required.
- Reviewing VTE related incidents where it is appropriate to do so, either
- Individually or collectively, and identifying where changes could be made to improve patient care
-

Ward Managers / Team Leaders

Team Leaders must ensure team members have access to policy guidelines. This would include education and supervision to ensure safe practice.

On a monthly basis, assess any current patients for VTE harm levels & anyone who has developed a DVT OR PE diagnosis & report this into the Safety Thermometer https://www.safetythermometer.nhs.uk/ under classic safety thermometer. CPFT incident team over sees the data inputted by the trust.

Registered Nurses & Allied Health Professional Staff (AHP)

- Provision of mechanical VTE prophylaxis e.g. antiembolic stockings
- Ensuring correct provision of information for patients, as required within their area of practice
- Ensuring patients, families or carers are competent to administer chemical prophylaxis on hospital discharge
- Ensuring initial risk assessment has been completed

6 Assessing the Risks of VTE & Bleeding

Follow "Care Pathway" – Page 20

- VTE assessment to be undertaken by a Medical Practitioner/AHP, this should normally be during the admission clerking for a patient being directly admitted from home.
- When a patient is stepped down from the acute trust over the weekend/bank holiday, the VTE assessment undertaken by the acute trust can be applied for up to 72 hours providing the patient remains medically stable.
- Out of hours (between midnight & 9am) - should the patient's condition deteriorate, a CHOC visit and an urgent assessment may be required and the VTE should form part of the clinical assessment by the CHOC clinician.
- Patients being stepped down from the acute trust should be transferred with a management plan in place that includes an up to date VTE assessment, it is the responsibility of the admitting clinician to ensure that this is in place before accepting the patient. A prescription for enoxoparin should be requested from the acute trust, prior to accepting the patient, to avoid any delay in the administration of the drug.
- For a patient admitted over the weekend /bank holiday by CHOC then the assessment would be undertaken by them as part of the admission process.

6.1 Service User risk assessment

Assess all patients within 24 hours of admission to identify those who are at increased risk of VTE.

The initial risk assessment should be carried out by medical staff using the assessment tool (appendix 1). Appendices 2 – 6 detail the thought processes and clinical reasoning which should be followed depending on the patient's medical status to help in the decision making process outlined in the risk assessment (Appendix 1).

Medical patients are considered to be at increased risk of VTE if they:

- Have had or are expected to have mobility reduced for 3 days or more.
- Are expected to have ongoing reduced mobility relative to their normal state and have one or more of the risk factors listed in the assessment tool see appendix 1

Surgical patients are considered to be at increased risk of VTE if they:

- Have a surgical procedure with a total anesthetic time and surgical time of more than 90 minutes or 60 minutes if the surgery involves the pelvis or lower limb.
- Have acute surgical admission with inflammatory or intra-abdominal condition.

- Are expected to have significant reduction in mobility.
- Have one or more risk factors listed in the assessment tool see appendix 1

Mental health patients – some of the known side effects for anti – psychotic Medication (sedation, weight gain) is known risk factors for VTE. Relevant risk factors are contained in the risk assessment documents – see appendix 1.

The identification of two or more risk factors during assessment indicates the service user is at 'high risk' of VTE.

NICE states that people with unprovoked DVT or PE who are not already known to have cancer are offered timely investigations for cancer.

People with active cancer and confirmed proximal DVT or PE are offered anticoagulation therapy.

People with provoked DVT or PE should not be offered testing for thrombophilia as there is no benefit and is unnecessary for this group of patients.

Assess all patients for risk of bleeding before offering pharmacological VTE prophylaxis.

Do not offer pharmacological VTE prophylaxis to patients with any of the risk factors for bleeding listed in the assessment tool, unless the risk of VTE outweighs the risk of bleeding.

Reducing the Risk of VTE

Encourage patients to mobilise as soon as possible.

Offer pharmacological VTE prophylaxis to general medical patients assessed to be at increased risk of VTE

Start pharmacological VTE prophylaxis as soon as possible after risk assessment has been completed. Continue until the medical practitioner assesses the patient is no longer at increased risk of VTE. See Care Pathway (Appendix 8).

7 Service User information

7.1 Before starting VTE prophylaxis offer patients and/or families or carers verbal and written information (patient leaflet appendix 9) on;

1. The risks and possible consequences of VTE.

2. The importance of VTE prophylaxis and its possible side effects.
3. The correct use of VTE prophylaxis (for example anti-embolism stockings).
4. How patients can reduce their risk of VTE (such as keeping well hydrated and if possible exercising and becoming more mobile).
5. Provide patient and family with support education and reassurance. Further information to offer the patient with a confirmed VTE can be found on the NHS Choices website:

   http://www.nhs.uk/conditions/deep-vein thrombosis /pages/introduction.aspx

7.2 As part of the discharge plan offer patients and/or families or carers verbal and written information (patient leaflet appendix 9) on:

1. The signs and symptoms of deep vein thrombosis and pulmonary embolism.
2. The correct and recommended duration of VTE prophylaxis at home if discharged with prophylaxis.
3. The importance of using VTE prophylaxis correctly and continuing treatment for the recommended duration if discharged with prophylaxis.
4. The signs and symptoms of adverse events related to VTE prophylaxis if discharged with prophylaxis.
5. The importance of seeking help and who to contact if they have any problems using the prophylaxis if discharged with prophylaxis.
6. The importance of seeking medical help and who to contact if deep vein thrombosis, pulmonary embolism or another adverse event is suspected.

7.3 Patients who are discharged on Enoxaparin should be given Enoxaparin pack which includes a sharps box and information leaflet detailing why they are on this medication and how to use it. Patients will be offered training to self-inject or for their carers to administer, if this is not possible support can be given by community services either to support self-administering or administer.

7.4 Patient-centred treatment and care should take into account patients' individual needs and preferences. Good communication is essential, supported by

evidence- based information, to allow patients to reach informed decisions about their care.

8. Anti-embolism Stockings

8.1 Base the choice of mechanical VTE prophylaxis on clinical condition, surgical procedure and patient preference. The only option currently available at Community Hospitals is the anti-embolism stockings (thigh or knee length).

If discharged with pharmacological or mechanical VTE prophylaxis ensure that: the patient is able to use it or has someone who can do this
the patient's GP is notified.

NICE guidance (2013) states that patients with proximal VTE should be offered below knee graduated compression stockings within three weeks of diagnosis and advised to use them for 2 years on the affected side. The timeframe of three weeks allows for swelling to reduce in order for stockings to be fitted.

8.2 Do not offer anti-embolism stockings to patients with

- Suspected or proven peripheral arterial disease
- Acute stroke
- Peripheral arterial bypass grafting
- Peripheral neuropathy or other causes of sensory impairment
- Local condition in which stockings may cause damage, such as fragile 'tissue paper' skin, dermatitis, gangrene or recent skin graft
- Known allergy to material of manufacture
- Severe leg oedema or pulmonary oedema from congestive heart failure
- Unusual leg size or shape
- Major limb deformity preventing correct fit

8.3 Use caution and clinical judgment when applying anti-embolism stockings over venous ulcers or wounds.

Measure legs and use correct stocking size according to manufacturer's instruction. Staff who fit stockings should be trained by senior staff in their use and should show patients

how to use them.

If oedema or postoperative swelling develops, ensure legs are re-measured and stockings refitted.

If arterial disease suspected, seek medical opinion before fitting stockings.

Use stockings that provide graduated compression and produce a calf pressure of 14-15 mmHg.

Encourage patients to wear the stockings day and night from admission until they no longer have significantly reduced mobility. Remove stockings daily for hygiene purposes and to inspect skin condition. If patient has significant reduction in mobility, poor skin integrity or sensory loss, inspect skin two or three times per day, particularly over heels and bony prominences.

Discontinue use of stockings if there is marking, blistering or discolouration of skin, particularly over heels and bony prominences, or if patient has pain or discomfort. Show patients how to use anti-embolism stockings correctly and ensure they understand that this will reduce their risk of developing VTE (see appendix 8 patient guide).

Monitor use of anti-embolism stockings and offer assistance if they are not being worn correctly.

9 Pharmacological

9.1 Low molecular weight Heparins (LMWH)

Enoxaparin is the LMWH used in the CPFT Provider Services. The indications, cautions and contraindications for the use of Enoxaparin are contained in the British National Formulary (BNF). Bleeding history or a pathology increasing the risk of bleeding are the principal areas for caution.

9.1.1 LMWHs should be considered for all service users

1. Where prescribed for post surgical patients, LMWHs should normally be administered until the day of discharge from the acute hospital. On transfer to the Community Hospital / Step-up/Step-down Unit or Mental Health / Learning Disability inpatient services, patients should be reassessed for their continued risk of VTE and their level of mobility post operatively. The GP / Medical Staff are responsible for the decision to prescribe further anti coagulation therapies given the patient/ service users medical condition their ongoing risk on transfer, and any ongoing prescription advice from the acute hospital

Contraindications for Heparin Therapy:

- History of Heparin Induced Thrombocytopenia
- Significant hepatic impairment
- Active gastric or duodenal ulceration or oesophagus varices.
- Hemophilia and other inherited bleeding disorders/major bleeding disorders
- Thrombocytopenia with platelets<50
- Recent cerebral hemorrhage
- Severe hypertension
- Recent neurosurgery or eye surgery
- Acute bacterial endocarditis
- Sensitivity to any low molecular weight Heparin

There is also a possibility that the patient may develop Heparin Induced Thrombocytopenia (HIT). Platelet counts should be monitored as per British National Formulary Guidance.

VTE prophylaxis should be commenced as soon as possible after risk assessment has been completed. Continue until the service user is no longer at increased risk of VTE. It is important to document and report any adverse affects to the GP / Medical Staff and where appropriate complete an incident form.

9.2 Enoxaparin

Standard dose: is 40 mg s/c once a day. Inpatients with renal impairment (creatinine clearance <30 mls/hour) use a reduced dose of 20 mg s/c once daily.

Timing of treatment: Enoxaparin should not be given for 4-6 hours after surgery and only when excessive bleeding has been excluded. Inpatient ward areas will routinely give this at 1800 each day. If any other time is chosen then this must be clearly indicated and the Nursing Team informed. In patients admitted the day before surgery a pre-operative dose not later than 1800 may be given if indicated.

Measurement of bleeding: Enoxaparin is not reversed by Fresh Frozen Plasma (FFP). Treatment should be stopped until the cause of bleeding is identified and controlled. Senior advice should be sought. The platelet count and clotting screen should be checked. If there is no correctable cause then consider **Protamine. 1 mg of Protamine will neutralize the effect of 1 mg of Enoxaparin. Maximum dose of Protamine is 50 mg.**

Monitoring of Therapy: If Enoxaparin is continued for more than 5 days there is a small risk of the patient developing a Heparin-induced thrombocytopaenia (HIT). The platelet count should be measured before treatment and after 5-7 days or if the patient develops a skin rash or other signs of an allergic reaction.

Duration of Therapy: Treatment should continue until mobility is no longer significantly

reduced. Hip replacement and hip fracture patients should receive prophylaxis for 28 days. Elective knee replacements should receive 14 days prophylaxis. Consider extending prophylaxis to 28 days post-operatively for higher risk patients who have had major cancer surgery in the abdomen or pelvis.

9.3 Rivaroxaban

This is only licensed for use in patients undergoing elective hip or knee replacement.

Standard dose: Usual dose is 10 mg oral once daily.

Monitoring of Therapy: No routine monitoring is necessary.

Duration of Therapy: Treatment should be continued for 14 days for knee replacements and for 35 days for hip replacements.

9.4 Patients already having Antiplatelet Agents or Anticoagulants on Admission or needing them for Treatment

Consider offering additional mechanical or pharmacological VTE prophylaxis to patients who are having antiplatelet agents to treat other conditions and who are assessed to be at increased risk of VTE (**see Appendix 1).** Take into account the risk of bleeding and of comorbidities such as arterial thrombosis. If the risk of VTE outweighs the risk of bleeding, consider offering pharmacological VTE prophylaxis with **Enoxaparin** according to the reason for admission. If the risk of bleeding outweighs the risk of VTE, offer mechanical VTE prophylaxis.

Do not offer additional pharmacological or mechanical prophylaxis for VTE to patients who are taking warfarin or other Vitamin K antagonists and who are within their therapeutic range, providing anticoagulant therapy is continued. Seek haematology or pharmacy advice if treatment requires to be discontinued for surgery/ procedure.

Do not offer additional pharmacological or mechanical VTE prophylaxis to patients who are having full anticoagulant therapy (for example, fondaparinux sodium, low molecular weight heparin (LMWH) or unfractionated heparin (UFH).

9.5 Reducing the Risk of Gastro-intestinal (GI) Bleed

If patients are receiving Enoxaparin or Rivaroxaban and are also concurrently prescribed aspirin / clopidogrel / non-steroidal anti-inflamatory drugs (NSAID), consider giving GI protections with proton pump inhibitors (PPI) or H2-Antagonists for the duration of Enoxaparin / Rivaroxaban treatment. Please contact pharmacy for further advice.

11.9 Nursing Care Plan

For an example of a nursing care plan for VTE, see **Appendix 8**

11 TRAINING

There is no mandatory training associated with this policy. Managers and service leads must ensure that all staff are familiar with this policy through governance meetings, Policy alerts, Heads of Department meetings and ward level meetings. Ad hoc training sessions may be indicated based on an individual's training needs as defined within their annual appraisal, supervision or job plan.
Further training needs may be identified through other management routes, including root cause analysis (RCA) review, following an adverse VTE related incident or audit findings.

There are a number of self-study, e-learning resources available in the ESR system for staff to access & complete:

- 000 VTE Prevention for Healthcare Undergraduate Students
- 000 VTE Prevention in Secondary Care
- 000 VTE Prevention in Primary Care
- 000 VTE Prevention: A Guide for Commissioners

12 MONITORING COMPLIANCE WITH THIS DOCUMENT

The table below outlines the Trust's monitoring arrangements for this policy/document. The Trust reserves the right to commission additional work or change the monitoring arrangements to meet organisational needs.

Aspect of compliance or effectiveness being monitored	**Monitoring method**	**Individual responsible for the monitoring**	**Frequency of the monitoring activity**	**Group / committee which will receive the findings / monitoring report**	**Group / committee / individual responsible for ensuring that the actions are completed**
VTE risk assessment & thromboprophylaxis	NICE Quality Standards for VTE prevention	Pharmacist NICE Lead	As and when NICE review QS29 or service changes	Safe Medicines Practice Group / ward managers / matrons	Professional Lead for Adult Nursing
Reporting of Incidents	Review incident reports.	Line managers	As incidents occur	Cross care group	Deputy director of nursing. Safety & Quality. Medicines Practice Group.

13 REFERENCES/ BIBLIOGRAPHY

NICE Guidance: Venous thromboembolism in over 16s: reducing the risk of hospital-acquired deep vein thrombosis or pulmonary embolismhttps://www.nice.org.uk/guidance/ng89/resources

NICE Quality Standard 29 Quality Standard for diagnosis and management of venous thromboembolic diseases. (March 2016). https://www.nice.org.uk/guidance/qs29

Keeling D. Davison and Watson H, British Society for Haematology 2006, 133:259-269 Heparin induced Thrombocytopenia

Maynard, G. (n.d.). Venous Thromboembolism (VTE) Prevention in the Hospital. Text version of a slide presentation. June 2010. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/qual/vtepresentation/maynardtxt.htm.

National Patient Safety Agency. (2011, February 2). Retrieved from http://www.nrls.npsa.nhs.uk/resources/?entryid45=94727&q=0%c2%acvenous+thromboembolism%c2%ac.

NHS Choices www.nhs.uk/conditions

British National Formulary Number 66 September 2013 BMJ Group Tavistock Square London and Pharmaceutical Press Pharmaceutical Press is the publishing division of the Royal Pharmaceutical Society 1 Lambeth High Street London.

14 RELATED POLICIES

North Cumbria University Hospital NHS Trust (2016) VTE Prevention & Management Policy
Medicines Policy (Dec 2016 – 2019)
Physical Examination and Care of Service Users Policy & Procedures (March 2016 – 2017)
North Cumbria University Hospital NHS Trust (2016) VTE Prevention & Management Policy
Clinical Supervision & Peer Review Policy
Transfer & Discharge of Patients Policy
British National Formula

15 Appendices

Appendix 1 – VTE Risk Assessment Document

Appendix 2 – Care Pathway – Medical Patients

Appendix 3 - Care Pathway – Stroke Patients

Appendix 4 – Care Pathway – Oncology Patients

Appendix 5 – Care Pathway – Patients in End of Life Care

Appendix 6– Lower Limb Plaster Casts

Appendix 7– VTE Care Plan

Appendix 8 – Patient Guide

Appendix 9 – Risk Assessment Tool. Anti-Embolism stockings.

APPENDIX 1

Attach Patient Label

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Risk assessment tool for venous thromboembolism

Thrombosis Risk	Tick	Haemorrhage Risk	Tick
Aged over 60		Haemophilia or other bleeding disorder	
Previous DVT/PE		Known platelet count of below <75 x 10^9/l	
Active cancer		Acute stroke in previous month (ischaemic or haemorrhagic)	
Acute or chronic lung disease		BP (over 200 systolic or over 120 diastolic)	
Acute or chronic inflammatory disease		Severe liver disease	
Chronic heart failure		Severe renal disease	
Lower limb paralysis (excluding stroke)		Active bleeding	
Acute infection		Major bleeding risk (existing anticoag/platelet therapy)	
BMI greater than 30Kg/m2		Neuro, spinal or eye surgery	
		Other procedures with high bleeding risk	
		Lumbar puncture/spinal/epidural in previous 4 hours	

This list is not exhaustive, any additional risk factors or clinical comments

Thromboprophylaxis: IS to be given
IS NOT to be given

Compare VTE risk against haemorrhagic risk and determine if intervention is indicated
If no boxes are ticked, no intervention is indicated, re assess 48 to 72 hours after initial assessment.

Recommended prophylaxis
Enoxaparin 40 mgs once daily at 6pm
(If CrCl below 30 mls/min use Enoxaparin 20 mgs)
Refer to Trust guidelines for further information

Signed Date

Reassessment for venous thromboembolism

Comments	Signature	Date

All patients should be risk assessed on admission to hospital. Patients should be reassessed within 24 hours of admission and whenever the clinical situation changes.

STEP ONE

Assess all patients admitted to hospital for level of mobility (tick one box). All surgical patients, and all medical patients with significantly reduced mobility, should be considered for further risk assessment.

STEP TWO

Review the patient-related factors shown on the assessment sheet against **thrombosis** risk, ticking each box that applies (more than one box can be ticked).

Any tick for thrombosis risk should prompt thromboprophylaxis according to NICE guidance.

The risk factors identified are not exhaustive. Clinicians may consider additional risks in individual patients and offer thromboprophylaxis as appropriate.

STEP THREE

Review the patient-related factors shown against **bleeding risk** and tick each box that applies (more than one box can be ticked).

Any tick should prompt clinical staff to consider if bleeding risk is sufficient to preclude pharmacological intervention.

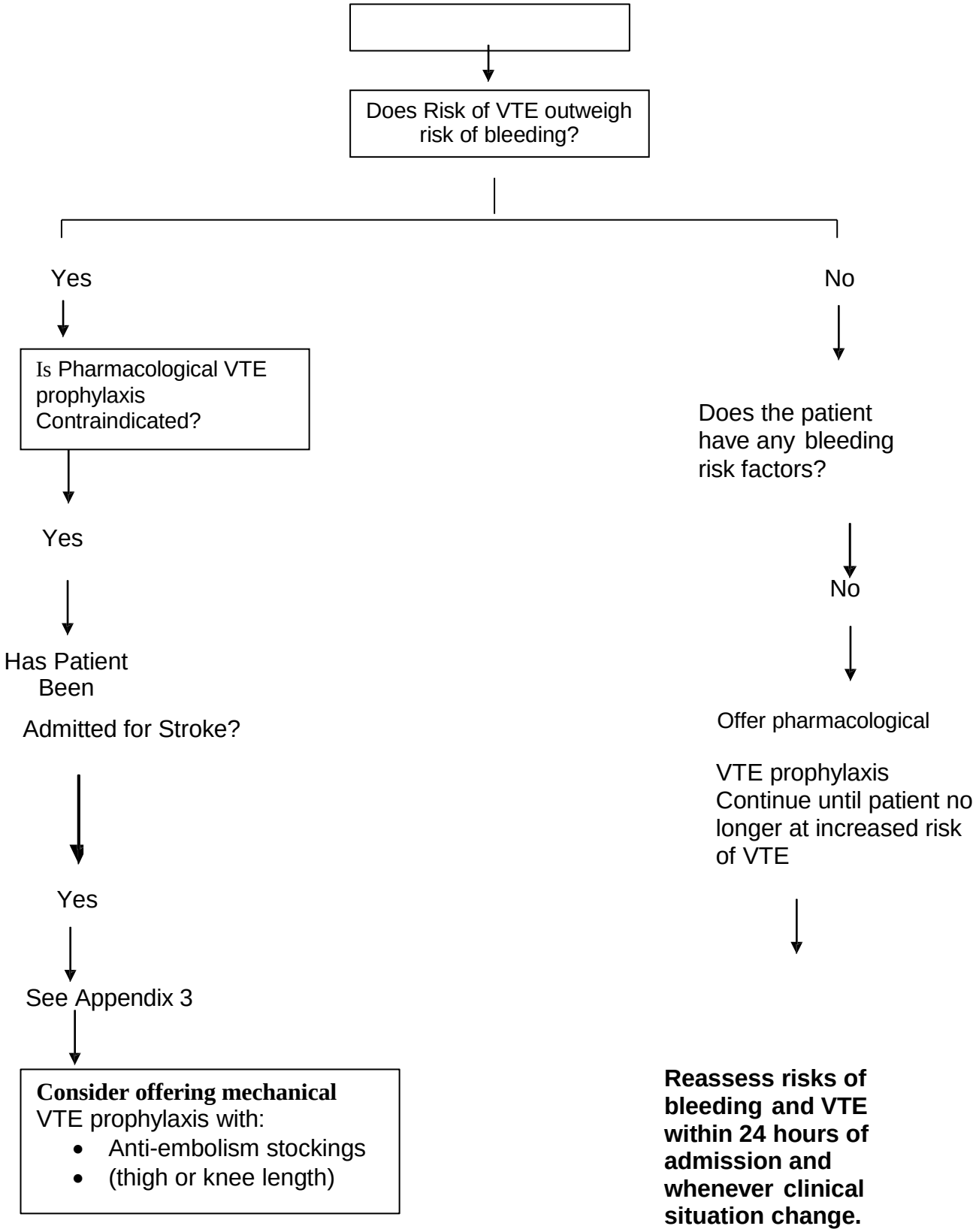
Guidance on thromboprophylaxis is available at:

National Institute for Health and Clinical Excellence (2010) Venous thromboembolism: reducing the risk of venous thromboembolism (deep vein thrombosis and pulmonary embolism) in patients admitted to hospital. NICE clinical guideline 92. London: National Institute for Health and Clinical Excellence.

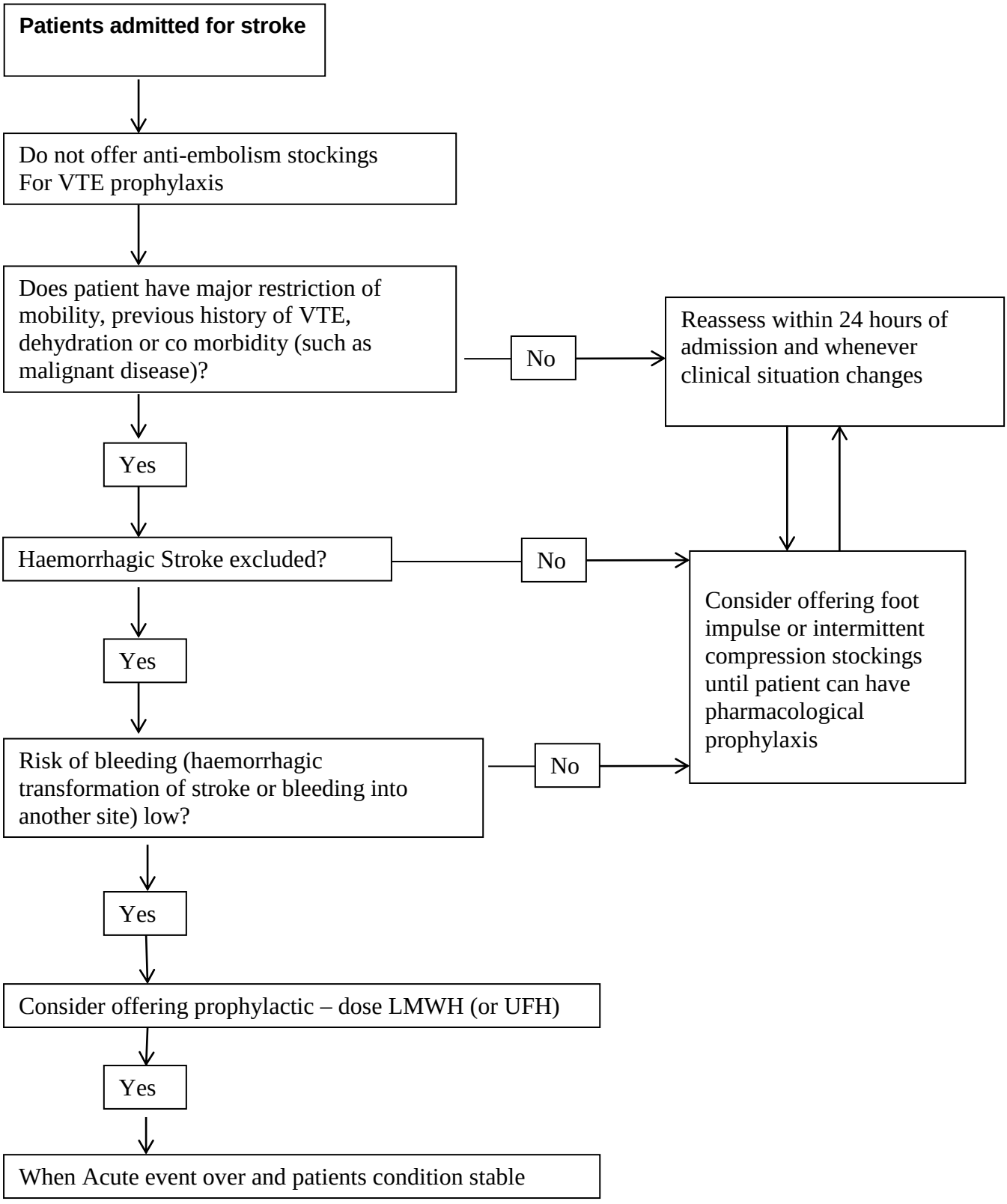
http://www.nice.org.uk/guidance/CG92

Appendix 2

Care Pathway – Medical Patients

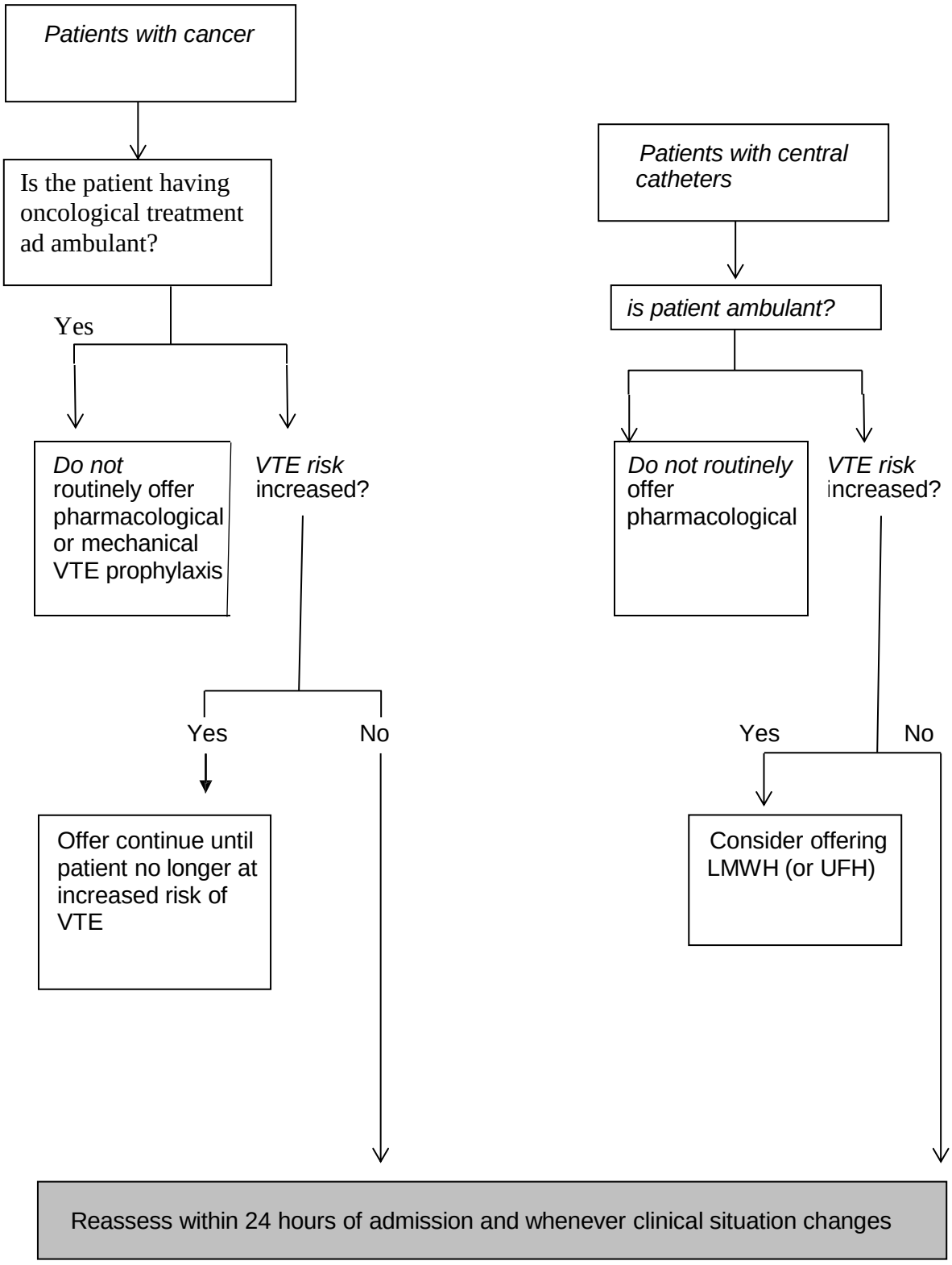


Care Pathway - Stroke Patients



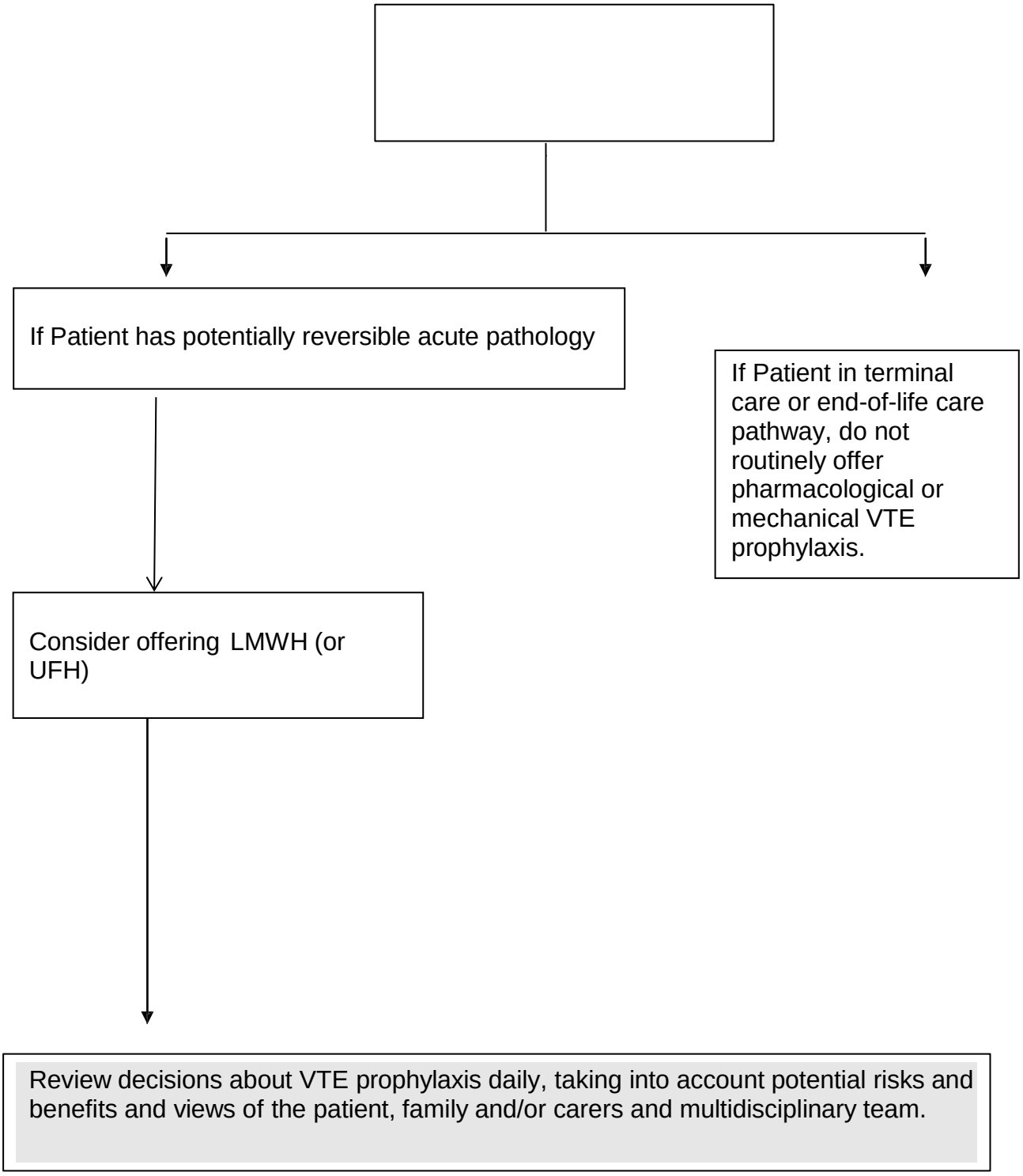
** Some types of LMWH do not have UK marketing authorization for VTE prophylaxis in medical patients. Prescribers should consult the summary of product characteristics for the individual LMWH. Informed consent for off-label should be obtained and documents**

Care Pathway - Oncology Patients



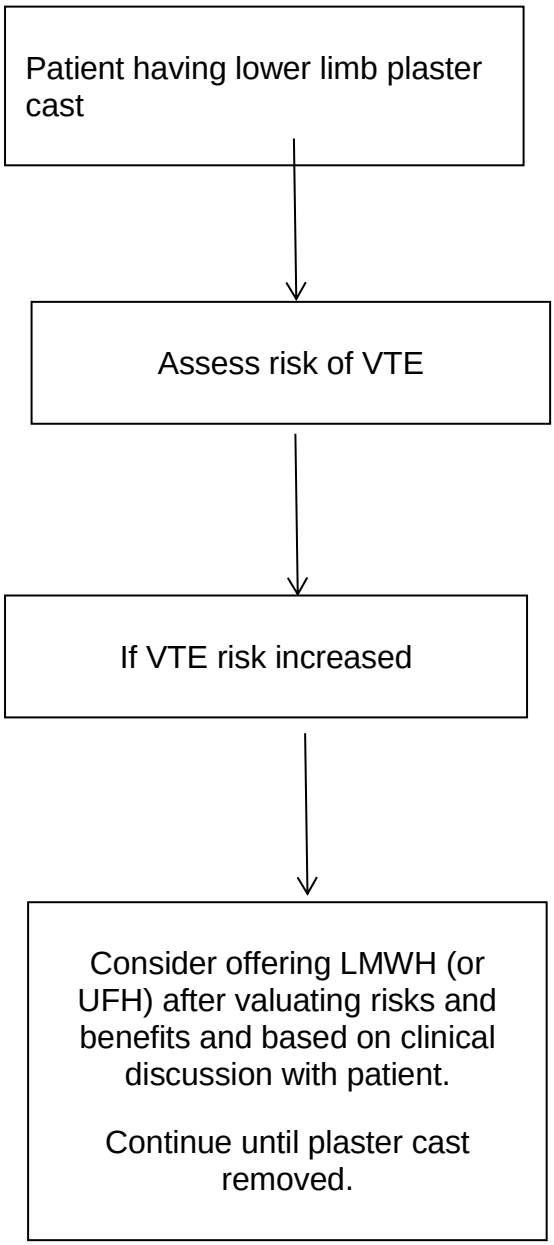
Appendix 5.

Care Pathway – End of Life Patients



Appendix 6.

Lower Limb Plaster Cast



APPENDIX 7

Cumbria Partnership NHS
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VTE Risk Assessment Tool for Anti-Embolism Stockings (AES)

INSERT PATIENT STICKER	**Ward:** **Date:** **VTE Risk Assessment completed: YES NO** **If NO, please ensure it is completed by Doctor / Nurse**

Can be completed by all Nursing Staff including HCAs who have been trained by the supplier how to measure and apply the stockings

CONTRAINDICATIONS

Contraindications to Anti-Embolic Stockings (AES)	**Tick**
Severe PVD or vascular surgery	
Insensate leg (numbness) due to local anaesthesia block, neuropathy, diabetes etc.	
Cellulitis	
Dermatitis	
Massive oedema	
Leg / foot ulcers	
Gangrene	
Fragile “tissue paper” skin	
Cardiac failure	
Major limb deformity preventing correct fit	
Allergy to the material of manufacture	

If any contraindications present – Do not apply stockings – Seek Medical Advice and Document on Form /Nursing / Medical Notes

Have you given patient information leaflet “Stop the Clot”	YES	NO
Signed by Assessor:	Date:	

Ensure the reason for all actions are explained to the patient
Stockings MUST be removed and legs washed at least daily
Skin must be assessed and condition recorded
Stockings should then be re-applied
Clean stockings should be re-applied every 3rd day

Daily Assessment Chart

Ward	**Date**	**Left Leg Measure**	**Right Leg Measure**	**Size Applied**	**Comment on condition including skin evaluation noting any oedema and leg evaluation**	**Assessor’s Signature**	**Assessor’s Print Name**	**Designation**

Ensure the reason for all actions are explained to the patient
Stockings MUST be removed and legs washed at least daily
Skin must be assessed and condition recorded
Stockings should then be re-applied
Clean stockings should be re-applied every 3rd day

Can be completed by all Nursing Staff including HCAs who have been trained by the supplier how to measure and apply the stockings

Daily Assessment Chart

Ward	Date	Left Leg Measure	Right Leg Measure	Size Applied	Comment on condition including skin evaluation noting any oedema and leg evaluation	Assessor's Signature	Assessor's Print Name	Designation

APPENDIX 8 – EXAMPLE OF NURSING CARE PLAN FOR VTE

Problem Mrs ***** is potentially at risk of VTE due to hospitalisation

Goal To minimise her risk of VTE

Nursing interventions:

- Provide verbal and written information regarding risk of VTE and thromboprophylaxis
- Assess risk using VTE risk assessment tool or ensure doctor has completed the risk assessment
- Ensure risk assessment outcome has been documented in patient records
- Document which thromboprophylaxis modalities are appropriate depending on the level of risk
- Check and record if there are any contraindications to thromboprophylaxis
- Ensure thromboprophylaxis is prescribed on the patient's drug chart
- Administer or apply thromboprophylaxis as per drug chart
- Measure and document size of her foot/calf/thigh/length of leg as appropriate depending on which thromboprophylaxis modality is used and size of stocking/sleeve or foot cuff applied and follow manufacturer's instructions regarding washing
- Consider the patient's cultural and spiritual beliefs and gain consent prior to administering LMWH as it is porcine derived or seek alternative from doctor
- Encourage mobilisation (if medically fit) and leg and deep breathing exercises (refer to physiotherapist if necessary)
- Make clinical observations 4–6 hourly (blood pressure, pulse, respirations) and observe her legs for signs of DVT
- Check for side-effects of thromboprophylaxis and report immediately to doctor (including checking skin integrity and circulation)
- Inform the patient that she should watch for signs and symptoms of VTE or adverse effects from thromboprophylaxis and report them to a clinician immediately
- If the patient's VTE risk factors change, ensure that her risk is reassessed as soon as possible
- Document date and time when mechanical thromboprophylaxis is removed

- Ensure the patient's VTE risk on discharge is considered and decide whether or not thromboprophylaxis needs to be continued and, if so, for how long
- If the patient is discharged with LMWH then ensure patient or significant other is taught to administer injections (or community services are informed to administer) and that provision of a sharp's bin is included in the prescription (Inform Patient that Community Services will dispose of sharp's bin.)
- Other……..

Evaluation date: ……

Appendix 9

VTE Patient Leaflet

This leaflet explains more about blood clots, which can form after illness and surgery.

What are hospital-acquired blood clots?

A hospital-acquired blood clot may occur in a patient when they are in hospital, and up to ninety days after a hospital admission. There are two kinds:

1. **Deep vein thrombosis (DVT):** A DVT is a blood clot (also known as a thrombosis) that forms in a deep vein, most commonly in your leg or pelvis. It may cause no symptoms at all or it may cause swelling, redness and pain.

2. **Pulmonary embolism (PE):** If a clot becomes dislodged and passes through your blood vessels it can reach your lungs, this is called a PE. Symptoms include coughing (with blood stained phlegm), chest pain and breathlessness. Health professionals use the term venous thromboembolism (VTE), to cover both DVT and PE. If you develop any of these symptoms either in hospital or after you go home, please get medical advice immediately.

Are blood clots common?

Blood clots occur in the general population in about one in 1000 people every year. You may have heard about DVT in people who have been on an aeroplane, but you are much more likely to get a blood clot after going into Hospital. In fact, about two thirds of all blood clots occur during or after a stay in hospital. The government recognises hospital-acquired blood clots are an important problem and has asked hospital doctors, nurses and pharmacists to assess each patient's risk. If you are at risk, your doctor or nurse will talk with you about what will be done to offer you protection against clots.

Who is at risk?

Any unwell adult admitted to hospital is at risk – that is most adults. Other factors that put people at greater risk include:

- A previous clot
- A recent diagnosis of cancer
- Certain 'sticky blood' conditions such as antiphospholipid syndrome or Factor V Leiden.
- Being overweight
- Being immobile
- Oestrogen-containing contraceptives and hormone replacement
- Having an operation
- Significant injury or trauma

What can be done to reduce my risk?

Preventing blood clots (anticoagulants)

Most patients at risk will be prescribed a small dose of an anticoagulant by injection. Anticoagulants block the activity of clotting factors and prevent blood clots developing or getting worse.

If you need to take this medication when you leave hospital, you will be given more information and another information booklet. The most common side-effect is bruising and /or bleeding. If you are concerned please contact your doctor (in hours) or ShropDoc (out of hours)

Stockings

In hospital, you might be measured and fitted with anti-embolism stockings for your legs. You should be shown how to wear them and told to report any new pain or discomfort in your feet or legs to a health professional. Your stockings will be removed for a short time every day so that you can have a wash and check for any skin problems.

Inflatable sleeves

The clinical team may ask you to wear calf or foot pumps: special inflatable sleeves around your legs or feet while you are in bed or sat in a chair. These will inflate automatically and provide pressure at regular intervals, increasing blood flow out of your legs.

What can I do to help?

When in hospital:

- Keep moving or walking and get out of bed as soon as you can
- Drink plenty of fluids to keep hydrated
- Ask you nurse or physiotherapist for more information

What happens when I go home?

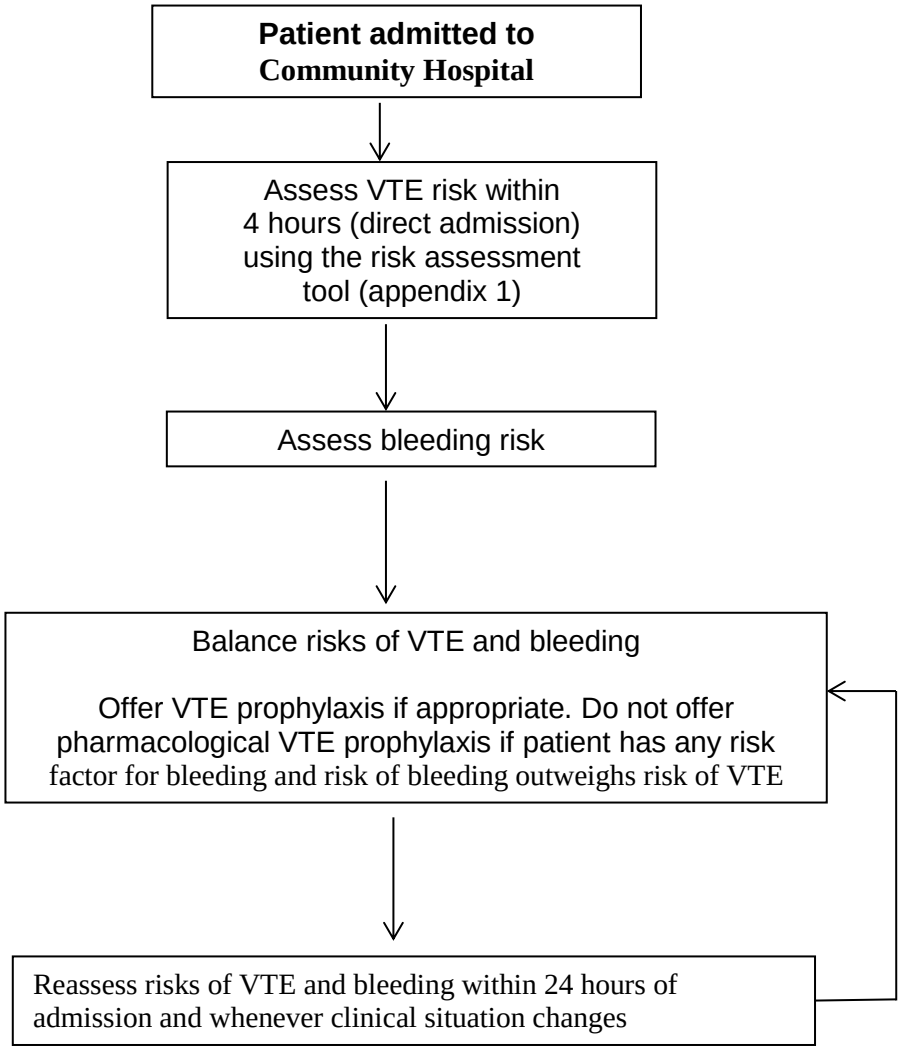
If you need to continue anticoagulation injections at home, your nursing team will teach you how to do this. If you have any concerns make sure you speak to a nurse before you leave.

If you develop any signs or symptoms of a clot at home e.g. you develop pain, swelling or redness in a leg, suddenly develop shortness of breath or chest pain, then seek medical advice immediately. Either from your General Practitioner (GP) / Cumbria Health On Call (CHOC) or your nearest hospital's emergency department.

Until you return to your usual level of activity, you may need to wear anti-embolism stockings after you go home. Your nurse will tell you how to put them on and what you should check your skin for.

Appendix 10

VTE Risk Assessment Pathway



For all patients

- Do not allow patients to become dehydrated unless clinically indicated.
- Encourage patients to mobilise as soon as possible.
- Do not regard aspirin or other antiplatelet agents as adequate prophylaxis for VTE