

NHS AYRSHIRE & ARRAN SURGICAL VENOUS THROMBOEMBOLISM (VTE) PROPHYLAXIS GUIDELINE FOR ADULTS (≥16 YEARS)

For **EVERY** Patient (see overleaf):
CONSIDER MECHANICAL PROPHYLAXIS – please tick
 Anti-Embollic Stockings / Flowtron (Intermittent PC) / Foot Impulse Device

- Establish if LMWH required using flow chart below
- Give patient VTE information
- Review VTE Prophylaxis every 48 hours (sooner if condition changes)

Write or attach label

CHI No:
 Surname:
 Forename: Sex:
 Address:

1. THROMBOSIS RISK FACTORS^{1,2} (tick all that apply)

Patient Related

- Age >60
- Dehydration
- Obesity (BMI >30)
- Any significant medical illness (e.g. heart, metabolic, endocrine, or respiratory disease; acute infection; inflammatory condition)
- Use of hormone replacement therapy
- Use of oestrogen-containing contraceptive
- Active cancer or cancer treatment
- Known thrombophilias
- Pregnancy or <6 weeks post partum
- Varicose veins with phlebitis
- Personal history or first degree relative with a history of VTE

Admission Related

- Significantly reduced mobility for 3 days or more
 - Surgery with significant reduction in mobility
 - Critical care admission e.g. HDU/ITU
 - Hip or knee replacement
 - Hip fracture
 - Total anaesthetic + surgical time > 90 minutes
 - Surgery involving pelvis or lower limb with a total anaesthetic + surgical time > 60 minutes
 - Acute surgical admission with inflammatory or intra-abdominal condition
 - Any other concern - describe here (e.g. type of surgery/procedure)**
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Any admissions or illnesses since pre-operative assessment? **YES / NO / N.A.**

At least one risk factor present

NO risk factors present

LMWH not required –
Early mobilisation
Consider mechanical prophylaxis (see over)

2. CONTRAINDICATIONS^{1,2} (tick all that apply)

Patient Related

- Active bleeding
- Acute stroke (within 3 months)
- Acute gastro-duodenal ulcer
- Known hypersensitivity (including HIT)
- Thrombocytopenia (Platelets <75x10⁹/L)
- Concurrent use of oral anticoagulants
- Concurrent use of therapeutic heparin
- Untreated inherited bleeding disorders
- Acquired bleeding disorders e.g. acute liver disease
- Uncontrolled hypertension >230/120 mmHg

Admission Related

- Epidural/Spinal Anaesthesia/Lumbar Puncture in previous 4 hours or expected within next 12 hours
 - Any other procedure with high bleeding risk
 - Neurosurgery, spinal or eye surgery
 - Acute Coronary Syndrome or Suspected DVT/PE should receive treatment dose Dalteparin^{3,4}
 - Any other concern - describe here (e.g. type of surgery/procedure)**
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NO contra-indications present

At least one contra-indication present

Prescribe VTE prophylaxis^{4,5} (see overleaf)

- Low risk: **LMWH not required: Consider mechanical prophylaxis (see overleaf)**
- Moderate Risk: **subcutaneous Dalteparin 2500 units**
- High Risk: **subcutaneous Dalteparin 5000 units**

- Do not prescribe LMWH**
- Consider mechanical prophylaxis (see overleaf)**
- Document in notes if not prescribed for any other reason

Assessed by:

Print Name _____ Signature _____

Date _____ Grade _____ GMC/NMC No. _____

Disclaimer if declining VTE prophylaxis

I confirm that the risks of deep vein thrombosis and pulmonary embolus have been discussed with me. I wish to decline the recommended prophylaxis.

Print Name _____ Signature _____ Date _____

Mechanical Prophylaxis:

- Apply on admission and continue until there is a return to the pre-morbid level of mobility
- Contraindications:** Pulmonary oedema, Peripheral vascular disease, Peripheral arterial disease, Cellulitis, Leg oedema, Leg/foot ulceration, Pressure sore, Peripheral neuropathy, Local leg conditions i.e. dermatitis, extreme deformity; acute stroke
- Advice on how to apply correctly and recommended wear should be given to the patient
- Intermittent Pneumatic Compression (IPC) devices (Flowtrons) or foot impulse devices should be applied peri-operatively

VTE prophylaxis with LMWH^{4,5} (Dalteparin LMWH of choice in NHS Ayrshire and Arran)

Elective ward admission (on evening before procedure)	Moderate Risk: Dalteparin 2500 units High Risk: Dalteparin 5000 units
Day surgery / Same day admissions to general ward	Moderate Risk: Mechanical Prophylaxis peri-op and Dalteparin 2500 units post-op High Risk: Dalteparin 2500 units 1-2 hours pre-op and Dalteparin 2500 units 8-12 hours post-op if haemostasis established or Mechanical Prophylaxis peri-op and Dalteparin 5000 units post-op
Emergency admissions (at 10 pm day of admission)	Moderate Risk: Dalteparin 2500 units High Risk: Dalteparin 5000 units

DO NOT GIVE LMWH if Epidural/Spinal Anaesthesia/Lumbar Puncture in previous 4 hours or expected within next 12 hours

Maintenance dose options (Emergency and elective) Once daily at 6pm	Moderate Risk: Dalteparin 2500 units High Risk: Dalteparin 5000 units
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Continue Dalteparin until discharge

Extended prophylaxis can be considered for patients with additional predisposing thrombosis risk factors

General measures:

- Keep patients adequately hydrated
- Early mobilisation and leg exercises should be encouraged
- Provide the Reducing the risk of deep vein thrombosis (DVT) information leaflet to all patients
- Reassess VTE risk and bleeding risk, every 48 – 72 hours or sooner if patient's condition changes
- Document all assessments and any changes in medical notes
- Document in medical notes if patient is excluded from VTE prophylaxis
- Alert GP and district nursing staff if patient discharged with extended prophylaxis

References:

- Scottish Intercollegiate Guidelines Network (SIGN) Guideline 122 (2010). Prevention and Management of Venous Thromboembolism: A National Clinical Guideline. Edinburgh: SIGN December 2010
- Department of Health 2010. Risk Assessment for Venous Thromboembolism (VTE). Accessed at http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_088215 on 27/9/12, now available at: http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_088215 accessed on 3/1/14
- NHS Ayrshire and Arran ADTC Administration Guide Dalteparin pre-filled single dose syringes for treatment of DVT and PE. ADTC 75/5. January 2013
- British National Formulary. 66, September 2013. BMJ Publishing Group Ltd & RPS Publishing
- SPCs for Fragmin® 2500IU and 5000IU Syringes, Pfizer, last updated on the EMC 6/3/13 and 16/10/13 respectively. Accessed at www.medicines.org.uk/emc on 3/1/14