APPENDIX 1: ORTHOPAEDICS & TRAUMA VENOUS THROMBOEMBOLISM (VTE) PROPHYLAXIS GUIDELINE FOR ADULTS (≥16 YEARS) (for use in conjunction with full guideline)

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

Establish if VTE prophylaxis required using flow chart below
Give patient VTE information
Review VTE Prophylaxis every 48 hours

Write or attach label
CHI No:
Surname:
Forename: Sex:
Address:
Date of Birth:

NHS Ayrshire & Arran

1. THROMBOSIS RISK FACTORS *(tick all that apply)*

Patient Related
- ☐ Age >60 years of age
- ☐ Dehydration
- ☐ Obesity (BMI >30kg/m^2)
- ☐ 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

Any admissions or illnesses **YES / NO / N.A.**

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
- ☐ Achilles tendon rupture
- ☐ Ankle fracture with splint/cast + non weight-bearing
- ☐ Lower limb injury with splint/cast + non weight-bearing

NO risk factors present →
VTE thromboprophylaxis not required
Early mobilisation
Consider mechanical prophylaxis

At least one risk factor present →

2. CONTRAINDICATIONS *(tick all that apply)*

Patient Related
- ☐ Active bleeding
- ☐ Recent stroke
- ☐ Acute gastro-duodenal ulcer
- ☐ Acute bacterial endocarditis
- ☐ Known hypersensitivity (including HIT)
- ☐ Thrombocytopaenia (Platelets <75x10^9/L)
- ☐ Concurrent use of oral anticoagulants – see main guideline
- ☐ Concurrent use of oral dual antiplatelets–see main guideline
- ☐ Concurrent use of therapeutic heparin
- ☐ Untreated inherited bleeding disorders e.g. haemophilia, von Willebrand disease
- ☐ Acquired bleeding disorders e.g. acute liver failure
- ☐ 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 fondaparinux or dalteparin as appropriate[3,4]
- ☐ **Any other concern - describe here (e.g. type of surgery/procedure)**
  ……
  ……
  ……
  ……

NO contra-indications present →
Prescribe VTE prophylaxis
- ☐ No risk factors: **VTE prophylaxis not required**
- ☐ Risk factor(s): **subcutaneous dalteparin/ Oral aspirin 150mg/ rivaroxaban 10mg (see over for treatment pathways)**
- ☐ **Patient declined prophylaxis**

At least one contra-indication present →
- ☐ **Do not prescribe VTE thromboprophylaxis**
- ☐ **Consider mechanical prophylaxis**
- ☐ **Document in notes if not prescribed for any other reason**

Assessed by:
Print Name _____ **Signature** _____
Date _____ **Grade** _____ **GMC / NMC No.** _____

ORTHOPAEDICS / TRAUMA THROMBOPROPHYLAXIS FOR ADULTS (≥16 YEARS)

Disclaimer if declining VTE Prophylaxis

I confirm that the risk of deep venous thrombosis and pulmonary embolus has 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 (Flowtron®) or foot impulse devices should be applied peri-operatively

VTE prophylaxis with LMWH (Dalteparin# - LMWH of choice in NHS Ayrshire & Arran)

Emergency Admission/Trauma	**Pelvic fracture** - Dalteparin 5000 units# subcutaneously 6-12 hours post-operatively then once daily subcutaneously for 28 days. Withhold 12 hours prior to surgery. **Hip Fracture** - Dalteparin 5000 units# subcutaneously 6-12 hours post-operatively then once daily subcutaneously for 35 days. Withhold 12 hours prior to surgery. **Spinal Injury Patients** are treated as per Local Spinal Injuries Policy
Elective Total Hip replacement	**First line**: Dalteparin 5000 units# subcutaneously 6-8 hours post-operatively then once daily subcutaneously for 35 days. **Second Line:** Dalteparin 5000 units# subcutaneously 6-8 hours post-operatively then once daily for 10 days and then Aspirin 150mg once daily for a further 28 days
Elective Total Knee replacement	**First Line:** Dalteparin 5000 units# subcutaneously 6-8 hours post-operatively then once daily subcutaneously for 14 days **Second line:** Aspirin 150mg once daily for 14 days.
Other elective/trauma admissions **Consider additional predisposing risk factors – see risk assessment tool**	Dalteparin 5000 units# subcutaneously 6-8 hours post-operatively then once daily until discharge/mobile. Extended prophylaxis should be considered for patients with additional predisposing risk factors.
Outpatients and Day Surgery patients treated for lower limb injuries that require them to be non-weight bearing	**First Line**: Rivaroxaban 10mg orally, once daily for period of immobility (maximum 35 days) **Second Line**: Dalteparin (see section 8.1 in main guideline for dosing information) subcutaneously, once daily for period of immobility (maximum 35 days)

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

Dalteparin dose: If patient weight <50kg consider reducing dose to 2500 units. If patient weight 100-150kg consider increasing dose to 5000units twice daily. If patient weight > 150kg consider increasing dose to 7500 units twice daily. In patients with eGFR < 30ml/min refer to main guideline for dosing information

General measures:

- Facilitate early mobilisation as soon as possible
- Ensure adequate hydration
- Reassess VTE risk and bleeding risk regularly, review treatment plan where appropriate and document any changes in notes
- Do not offer VTE prophylaxis to patients on full anticoagulant therapy
- Patients on established anti-platelet therapy
  - Assess risks and benefits of stopping
  - Do not regard ant-platelet therapy as adequate VTE thromboprophylaxis