Lower limb injury – Adult

Venous thromboembolism (VTE) prophylaxis

Adult patient with acute isolated LOWER LIMB INJURY suitable for ambulatory outpatient care[1]
Encourage and discuss with all patients the importance of mobilisation and maintaining fluid intake[2].

Does the patient have EITHER of the following transient VTE risks[1]?
Prescribed ankle/knee immobilisation (e.g. Moon boot or Richard splint or Range of Motion [ROM] brace or plaster cast)
OR
Unable to fully weight bear through the injured limb

NO → **Low VTE Risk** → **VTE prophylaxis is NOT required**

YES

Does the patient have ANY of the following VTE risk factors[1]?

- Current hormone therapy (i.e. combined oral contraceptive pill, Hormone Replacement Therapy [HRT], tamoxifen)
- Pregnant or less than 6 weeks post-partum
- Major medical co-morbidity (e.g. cardiac failure, inflammatory bowel disease, chronic obstructive pulmonary disease, chronic kidney disease, sickle cell disease)
- Active cancer
- Personal or first degree relative VTE history
- Known thrombophilia
- Varicose veins
- Hospital admission or major surgery within the past 3 months
- Older than 60 years
- BMI greater than 30 kg/m^2
- Active heavy smoking or vaping

NO → **VTE prophylaxis is NOT routinely required**

YES

Increased VTE Risk

Does the patient have ANY of the following absolute contraindications[3–8]?

- Currently receiving therapeutic dose anticoagulation (e.g. enoxaparin, unfractionated heparin, warfarin, apixaban, rivaroxaban, dabigatran)
- Active/clinically significant bleeding within the last 48 hours
- Platelets less than 50 x 10^9/L
- Inherited or acquired bleeding disorders (e.g. haemophilia) – discuss risk/benefit of VTE prophylaxis with haematologist

YES → **VTE prophylaxis is contraindicated**

NO

Does the patient have ANY of the following relative contraindications[3–8]?

- Allergy/adverse drug reaction to anticoagulant
- High bleeding risk surgical procedure within the last 2 weeks
- Recent bleeding or condition associated with bleeding risk
- Uncontrolled systolic hypertension (i.e. 230/120 mmHg or higher)
- Kidney impairment# (i.e. estimated kidney function less than 30 mL/min)

YES → **Can bleeding risks be mitigated?**

NO → **VTE prophylaxis is contraindicated**

YES → **VTE prophylaxis is RECOMMENDED**

NO

VTE prophylaxis is RECOMMENDED

Prescribe pharmacological prophylaxis# until the patient is fully weight bearing on injured limb[3]. Consider patient preference, potential for urgent surgery with/without neuraxial procedure, approved indications (LAM and TGA), cost implications associated with PBS status, and potential need for dose adjustments# based on kidney function, bodyweight or BMI.

1. Preferred option is **Enoxaparin 40 mg subcutaneously ONCE daily**[1, 4–5]. Consider alternative if history of heparin-induced thrombocytopenia.
2. If surgery is not anticipated following discussion with surgical team, oral formulation may be considered in the form of Apixaban 2.5 mg oral TWICE daily[6] *OR* Rivaroxaban 10 mg oral ONCE daily[7]. Consider cost implications as this indication is non-PBS and is not TGA approved. Contraindications include pregnancy and breast feeding.
3. Only if above options are not suitable, consider Aspirin 100 mg oral ONCE or TWICE daily with food[8–13]. Incidence of asymptomatic VTE is higher with aspirin than with anticoagulation[8, 10–11]. Aspirin is contraindicated for patients with allergy or aspirin-sensitive asthma[5].

#Dose adjustment or alternative prophylaxis may be required if:

- **Estimated kidney function less than 30 mL/min** or increased risk of bleeding
- Bodyweight **50 kg or less** OR **BMI 30 kg/m^2 or greater**.

Refer to dose adjustments in general recommendations if required.