

CPO Suspected Deep Vein Thrombosis (DVT) Pathway

Purpose

To provide support for suspected Deep Vein Thrombosis (DVT) investigation and management within primary care. This is to be used for guidance only and should not replace clinical judgment.

Eligibility Criteria

- Hawke's Bay Resident
- Age 18 years and over

Exclusion Criteria:

- Under 18
- Pregnant
- On Dialysis
- Clotting disorder
- Concern for significant proximal VTE or concurrent PE

Funding

Referral and Claiming/Outcome is through the **Halcyon Provider Portal > CPO Programmes > Acute Care > DVT Suspected**. Funding is fee for service.

DVT SIGNS AND SYMPTOMS

- Unilateral Oedema
- Erythema
- Localised tenderness of deep venous system thigh or calf
- Calf swelling > 3.0cm cf asymptomatic leg

Red Flags/ Refer if:

- Under 18
- Pregnant
- Possible proximal VT
- DVT other than lower limb
- Clotting disorders
- On dialysis

Alternative Conditions:

- Superficial Thrombophlebitis
- Achilles tendon strain/rupture
- Calf muscle injury
- Cellulitis
- Baker's Cyst intact / ruptured
- Cardiac related oedema
- Pelvic obstruction
- Lymphoedema lymphangitis
- Drug induced oedema
- Venous valve insufficiency
- Undiagnosed Malignancy

Risk Factors for DVT

- Recent surgery or Trauma
- Immobilisation
- Travel- airline > 8 hours
- Previous thrombosis or FH
- Malignancy
- Post partum
- Lower extremity paralysis
- Obesity
- Stroke
- Oestrogen therapy COC, HRT
- Varicosities, Thrombocytosis

Indications for Investigation:

- 1st symptomatic ?DVT; - High risk asymptomatic;
- Recurrent symptomatic DVT;
- Chronic symptoms,
- ? Diagnosis Pulmonary Embolism,
- Asymptomatic leg symptoms.

Ultrasound Scans

All scan requests **MUST** include the CPO reference number included from the Halcyon Form e.g. HB1234.

Ultrasound Scans

Ultrasound Scans can be arranged through

- TRG Imaging ph: 06 873 1166 (Hastings) or 06 835 3306 (Greenmedows) or 06 8670736 (Gisborne)
- Onsite Ultrasound ph: 0800 991 119 (Napier)
- Onsite Ultrasound ph: 06 835 1900 (Havelock North)
- Unity Specialist & Ultrasound ph: 06 2812797 (Hastings)
- Coastal Radiology ph: 06 867 3132 (Gisborne)

If clinically unsure, refer to a colleague or Urgent Care Centre. *Please do not refer patients with suspected DVT to Te Whatu Ora – Health New Zealand Te Matau a Māui, Hawke's Bay (Te Whatu Ora – Hawke's Bay) Emergency Department*

Anticoagulation if imaging is not available on the same day (e.g: weekends and evenings), and clinically safe

- Start either therapeutic dose of enoxaparin or rivaroxaban with enough supply until investigations can be completed.
- The initial choice between enoxaparin or rivaroxaban does not affect options for long-term anticoagulation if required.
- For suspected DVT, enoxaparin is available under a Special Authority application, SA0975. When using Special Authority also include CPO number on prescription and the co-payment will be invoiced to CPO.
- Patient is discharged from CPO once they commence anticoagulant therapy.
- There will be no claw backs when referring to a colleague or Urgent Care.

Assessment

Clinically examine and score the patient using the Wells Score below. Follow the algorithm according to low probability (1 or less) or High probability (2 or more).

CLINICAL FEATURE (WELLS)	SCORE
Active cancer (treatment ongoing or within previous six months or palliative)	1
Paralysis, paresis or recent plaster immobilization of lower extremities	1
Recently bedridden >3 days or major surgery within 4 weeks	1
Localised tenderness along the distribution of the deep venous system	1
Entire leg swollen	1
Calf swelling 3cm > asymptomatic side (measured 10cm below Tibial Tuberosity)	1
Pitting oedema confined to the symptomatic leg	1
Collateral superficial veins (not Varicose)	1
Alternative diagnosis as likely as or greater than that of DVT	-2
Risk score interpretation (probability of DVT): <ul style="list-style-type: none"> • ≥ 3 points: high risk (75%); • 1 to 2 points: moderate risk (17%); • <1 point: low risk (3%). 	

Recommended follow up:

Positive DVT

- Commence oral anticoagulation therapy

If a clear alternative diagnosis

- (Bakers cyst, cellulitis, muscle strain, oedema) No active follow up required.

If no clear alternative diagnosis or negative scan result

If a DVT is not confirmed on ultrasound, consider the limitations of the ultrasound scan and arrange a follow up scan in 5 to 8 days if:

- High pretest probability score (2 or higher) and D-dimer is positive (500 microgram/L or greater
- The symptoms persist and an alternative diagnosis is not apparent. If asymptomatic, no repeat ultrasound is required

Repeat Scans following Positive DVT Scan

There is no indication for repeat scanning of legs following treatment of DVT in the community

Medications

1. CPO will fund the prescription fee for patients for the specified medications prescribed under this pathway. Medication funded for this pathway is Enoxaparin.

2. All prescriptions **MUST** include the CPO reference number included from the Halcyon Form e.g. HB1234.

Enoxaparin

Enoxaparin (Clexane)

- Enoxaparin is available in both 100 mg/1 mL and 150 mg/ 1mL (maximum syringe size) on prescription from The Pharmacy at the Hastings Health Centre, Radius Care Pharmacy- Napier or Taradale Medical Pharmacy at the Taradale Medical Centre.
- INR to be 2.0 before discontinuing enoxaparin
- For renal impaired patients be aware of low molecular weight heparin alert

Enoxaparin Dosing

- Weigh patient
- Calculate Creatinine Clearance (CrCl) using the Cockcroft Gault method.

	Weight < 100kg	Weight 100-150kg	Weight > 150kg
CrCl > 30ml/min	1.5mg/kg total daily dose	1mg/kg bd	1mg/kg bd
CrCl < 30ml/min	1mg/kg total daily dose	1mg/kg total daily dose	0.66mg/kg bd

- If total daily dosage is higher than 150mg then dosage should be recalculated to 1mg/kg bd

Anticoagulant Therapy

For therapeutic management of DVT, refer to Health Pathways

Deep Vein Thrombosis (DVT)

Patient Unsuitable for Anticoagulation

Refer to on-call AAU specialist (Mon-Fri, 9-5, 06 8734812) if:

- Heparin induced thrombocytopenia
- Contraindications to anti-coagulation therapy include:
 - haemophilia or any other known bleeding disorders
 - active bleeding
 - platelets <75
- Pregnancy

If outside these hours, call the medical registrar through the hospital switchboard.

Refer to Haematologist

Refer to Haematologist for advice/assessment if:

- Above knee DVT
- Second event
- Large, spontaneous clots

Dual Antiplatelet Therapy

Patients who are on both Clopidogrel and aspirin, or Ticagrelor and aspirin should be discussed with the on-call medical team prior to treatment.