LRI Emergency Department

Suspected leg DVT

Do not use if

- **<16 years of age**
- **Known pregnancy or <8d post-partum**
- **Features suggestive of PE**
- **Limb ischaemia suspected**
- **T >37.9° C** (likely cellulitis)
- **Features explicable by**
  - ★ **Obvious acute injury**
  - ★ **Insect bite / skin wound**
- **Asymptomatic in last 72h**

Disclaimer:
This is a clinical template; clinicians should always use judgment when managing individual patients

Created by Martin Wiese . Version 130
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Patient details

Full name

DoB

Unit number

(use sticker if available)

To prescribe apixaban & enoxaparin in NC Meds, go to Emergency Medicine (ED) > Anticoagulation (ED)

DVT excluded
See box 7 for list of alternative diagnoses and manage as appropriate
See box 10 for elements to use in NC 'GP Notes' field

Record observations and weight below, and send the bloods shown in box 8

DVT likely (complete box 1) **OR** already anticoagulated? — Y → **NB**:D-Dimer result irrelevant at this stage

i.e. on correct dose of LMWH, a DOAC or on Warfarin with INR >1.9

D-Dimer <0.5µg/mL FEU **OR** patient aged 51 or over **AND** D-Dimer below cut-off (box 2)? — Y

Weight
kg

Exclusion criteria
- Weight >180kg
- Aged <18 years
- Requiring hoist

Suitable for DVT clinic? — N

Admission needed (complete box 3)? — Y → • Consider pain relief • Anticoagulate as per box 9 on next page

Arrange DVT clinic slot

If open, call DVT clinic on **15972**
Mon-Fri 8:00–18:30
B Hols 8:00–16:00
(no service Sat-Sun)
If clinic closed or if no same-day slot available, ask ED tracker (Red Majors, extension **10164**) to book an appointment
Date
Time

Slot available today? — Y → Discharge to DVT clinic

EDU admission needed (complete box 5)? — Y

Need to avoid apixaban (see box 6), or is treatment failure suspected in pt on DOAC or warfarin? — Y

During opening hours,
Mon-Fri 08:30–17
Sat-Sun 13:00–17
B Hols d/w **16969**
contact Balmoral Ultrasound on **15155** to arrange same-day scan *even if next-day DVT clinic slot was already obtained* and complete ICE request

- Apixaban PO 10mg STAT
- If clinic slot not within 12h
  - Prescribe apixaban 10mg BD 1/52 TTO
  - Advise patient to carry apixaban card on them (from inside tablet box)
  - Give patient an LMSG apixaban leaflet
  - Pause NSAIDs and COX2-inhibitor drugs
  - Give patient a DVT PIL

- Enoxaparin SC STAT (see box 9 for dose advice)
- If no next-day slot given
  - Prescribe enoxaparin TTO for 5 days; use STAT dose to show patient how to self-administer injection
  - Give patient a DVT PIL and provide a sharps bin

- **NB**: Not all patients will need scanning; **DO NOT** advise patient to expect a scan
- Address any analgesia / mobility needs
- Discharge from ED

Admit patient on EDU 'DVT pathway'

Admit to **AMU** / **AFU**

Vital signs
Temp ° C
SpO_2 % in air
Resp rate per min
Heart rate per min
BP mm Hg

Completed by

Print name | Signature | Role | Date | Time

① Is DVT likely?

Tick any applicable 'Wells' criteria below and record total score at the bottom

Undergoing active or palliative cancer treatment in last 6/12	1 ☐
Leg paralysis, paresis or plaster immobilization within last 12/52	1 ☐
Bedridden >3 days, or surgery under general or regional anaesthesia, in last 12/52	1 ☐
Localised tenderness along deep venous system distribution	1 ☐
Entire leg swollen	1 ☐

Record calf circumference 10cm distal to tibial tuberosity before determining the next feature

L cm **R** cm

Affected calf larger than the other side by 3cm or more (see above)	1 ☐
Pitting oedema (**NB**: tick only if found in symptomatic leg only)	1 ☐
Collateral (non-varicose) superficial veins	1 ☐
Previously documented DVT	1 ☐
Alternative at least as likely as DVT	-2 ☐

☐ **Yes** – as 'Wells score' > 1
☐ **No** – as 'Wells score' < 2

② D-Dimer cut-off

***NB**: Use only if patient aged 51 years or older*

Record patient's age and age-adjusted cut-off value for normal D-Dimer in the boxes below

Cut-off is calculated by dividing age by 100 (e.g. if patient is 63 years old, cut-off is 0.63)

Age	Cut-off

③ Medical admission needed?

☐ **YES** – as at least one of the below

Admission required for non-VTE reason	☐
Instability (BP <100 / HR >100 / SpO_2 <94%)	☐
3 or more doses of IV opiates needed in ED	☐
Known active cancer **AND** 30-day mortality risk high (see box 4)	☐

Life or limb threatening DVT features

Phlegmasia cerulea dolens (i.e. very painful **BLUE** leg due to extensive venous occlusion)	☐
Phlegmasia alba dolens (i.e. very painful **WHITE** leg due to arterial spasm due to DVT)	☐

NB: Refer to vascular surgical 'registrar': May require surgery or radiological intervention

Increased bleeding risk

Hb <100 unless known to be chronic and stable	☐
Any active bleeding	☐
Platelet count <75.000	☐
Prolonged PT or APTT (INR or APTR >1.2)	☐
Inherited bleeding disorder (e.g. haemophilia or von Willebrand disease)	☐
Acquired bleeding disorder (e.g. chronic liver disease or acquired Haemophilia A)	☐
Systolic BP >180 or diastolic BP >110	☐
Gastrointestinal bleed <2/52 ago	☐
Surgical procedure <2/52 ago	☐
Cerebral neoplasm that has bled previously	☐
Non haemorrhagic stroke <1/52 ago	☐
Haemorrhagic stroke <2/52 ago	☐
Spontaneous intracerebral bleed <2/52 ago	☐
Sub- or extradural haematoma <10/7 ago	☐
Traumatic SAH <10/7 ago	☐
Cerebral haemorrhagic contusion <10/7 ago	☐
Neurosurgical procedure <48 hours ago	☐
LP/epidural/spinal anaesthesia <4 hours ago	☐
Eye surgery/retinal lasering <48 hours ago	☐
On treatment for bacterial endocarditis	☐
Haemorrhagic pericardial effusion	☐
Haemorrhagic pleural effusion	☐

Not eligible for apixaban (box 6) ***AND ALSO***

On dialysis or creatinine clearance (CrCl) <30	☐
Hypersensitivity to any heparin product	☐
History of heparin-induced thrombocytopenia	☐

☐ **NO** – as none of the above

④ 30-day cancer mortality

If known active cancer, click on (or point smartphone at) the QR code to get to the POMPE-C tool on MDCalc

☐ **HIGH** – greater than 5%

☐ **LOW** – 5% or lower

%

⑤ EDU admission needed?

☐ **YES** – as at least one of the below

- Unable to arrange return to hospital for scan ☐
- Unable to mobilise / self-care safely ☐
- Need to arrange district nurses to give LMWH ☐
- Neither patient nor carer (if any) able to understand / follow instructions / advice ☐

☐ **NO** – as none of the above

⑥ Need to avoid apixaban?

☐ **YES** – as one or more of the below

- Age <18 (medicine is unlicensed in children) ☐
- ALT >106 IU/L ☐
- Weight <50kg ☐
- Unable to swallow tablets ☐
- Known antiphospholipid syndrome ☐
- Currently breast feeding ☐
- On treatment with another anticoagulant ☐
- Oesophageal varices ☐
- Active luminal malignancy of GI or GU tract ☐
- Vascular aneurysms ☐
- Arteriovenous malformations (AVMs) ☐
- Undergoing dialysis ☐
- Creatinine clearance (CrCl) <15 ☐
  (applicable only if eGFR <30; use UHL CrCl online calculator on ED 'drugs & fluids' page; record result in box 8)
- Current treatment with
  - Protease inhibitors, e.g. ritonavir ☐
  - Carbamazepine ☐
  - Phenytoin ☐
  - Phenobarbital ☐
  - Rifampicin ☐
  - Azole-antifungals, e.g. ketoconazole ☐
  - St. John's Wort ☐

*(**NB**: More info on Thrombosis Canada DOAC Drug-Drug Interaction Tool)*

☐ **NO** – as none of the above

⑦ Alternative diagnoses

If recent onset

- Torn gastrocnemius muscle ☐
- Superficial thrombophlebitis ☐
- Baker's cyst ☐
- Cellulitis ☐
- Joint effusion or haemarthrosis ☐
- Arthritis ☐
- Dermatitis ☐
- Fracture ☐
- Haematoma ☐
- Acute arterial ischaemia ☐
- Compartment syndrome ☐

If chronic features

Congenital vascular disease
- Haemangioma ☐
- Klippel-Trenaunay syndrome ☐

Venous disease
- Post-thrombotic syndrome ☐
- Lipodermatosclerosis ☐
- Chronic venous insufficiency ☐
- Venous obstruction ☐

Lymphoedema
- Cancer treatment ☐
- Infection ☐
- Tumor ☐
- Trauma ☐
- Pretibial myxoedema ☐

Other
- Heart failure ☐
- Reflex sympathetic dystrophy ☐
- Idiopathic oedema of women ☐
- Hypoproteinaemia; e.g.
  - cirrhosis ☐
  - nephrotic syndrome ☐
- Armchair legs ☐
- Lipoedema ☐

NO alternative diagnosis identified ☐

⑧ Bloods

FBC: WBC, Hb, Platelets, CRP

U&E: Na, K, Urea, Crea, eGFR

LFT: Albumin, Bili, AP, ALT

Coagulation Screen: INR, PT, APTT, D-Dimer

CrCl

Glucose

⑨ Enoxaparin dosing aid

Prolonged PT or APTT, history of HIT, hypersensitive to heparins, weight <40 or >150kg or platelets <50.000? Y / N

N → eGFR <40? Y / N

Y → Calculate Creatinine clearance (CrCl) using UHL CrCl online calculator (link also on ED 'drugs & fluids' page)

N → CrCl <30? Y / N

Y → CrCl <15? Y / N

N → **Twice daily (BD) dose**

To prescribe in NC Meds, go to Emergency Medicine (ED) > Anticoagulation (ED) > Enoxaparin > VTE treatment > **BD dose** and select the weight-appropriate dose sentence

Y → **Once daily (OD) dose**

To prescribe in NC Meds, go to Emergency Medicine (ED) > Anticoagulation (ED) > Enoxaparin > VTE treatment > **OD dose** and select the weight-appropriate dose sentence

If NC offline, tick applicable dose below and prescribe enoxaparin as **INHIXA** on paper chart

	kg	mg (PFS colour)
☐	40 – 46.9	40
☐	47 – 54.9	50 (**NB**: Use 60mg PFS but expel 0.1mL)
☐	55 – 69.9	60
☐	70 – 89.9	80
☐	90 – 109.9	100
☐	110 – 134.9	120
☐	135 – 150.0	150

Discuss with on-call haematology 'registrar'

⑩ Nervecentre discharge letter template

Copy & paste text below into the 'GP Notes' box and add / delete [including help text] as appropriate

Dear Doctor - your patient attended our ED today with [enter presenting complaint as a single sentence].

The presentation raised the suspicion of a leg DVT, but we were able to exclude this using the structured process shown on our ED proforma (you can view it by typing 'bit.ly/lri-ed-leg-dvt' into your browser).

The main clinical findings were [please add]. Key tests results included [please add].

[Delete one of the following two sentences as applicable]
The most likely diagnosis is [add the appropriate item from the list of differentials shown in box 8].
An alternative diagnosis has not yet been established; please note diagnosis has been found to remain unclear in around 1 in 4 patients investigated for DVT.

Treatment included [please add]. We have advised your patient to [please add].

[Please add any actions that might be needed at the GP surgery here; but bear in mind that our general practice colleagues' ability to act within 3 weeks will usually be very limited.]