

This document has been approved for use by ED and orthopaedic teams working in minor injuries units at GRI/Stobhill during COVID-19. This form should be completed for all non-weight bearing patients with lower limb immobilisation e.g. backslab in situ at discharge. (NB equinus cast for Achilles ruptures).

*Addressograph label*

### VTE Risk Assessment

No	Yes	Immobilisation Risk Factor
<input type="checkbox"/>	<input type="checkbox"/>	Back-slab or plaster cast <b>non-weightbearing</b> (not walking boot)

**Risk-factor Assessment** (if any are present, proceed to assess bleeding risk):

No	Yes	Risk Factor
<input type="checkbox"/>	<input type="checkbox"/>	Achilles tendon rupture
<input type="checkbox"/>	<input type="checkbox"/>	Obesity (BMI>30Kg/m <sup>2</sup> )
<input type="checkbox"/>	<input type="checkbox"/>	Active cancer or cancer treatment
<input type="checkbox"/>	<input type="checkbox"/>	Thrombophilia
<input type="checkbox"/>	<input type="checkbox"/>	Personal history or first degree relative with a history of VTE
<input type="checkbox"/>	<input type="checkbox"/>	Pregnancy or <6 weeks post-partum
<input type="checkbox"/>	<input type="checkbox"/>	Hormone replacement therapy or tamoxifen
<input type="checkbox"/>	<input type="checkbox"/>	Contraceptive pill (oestrogen containing)

**Does the patient have any bleeding risk factors?**

No	Yes	Risk Factor
<input type="checkbox"/>	<input type="checkbox"/>	Concurrent use of therapeutic anticoagulant i.e. warfarin, DOAC (not including aspirin, clopidogrel)
<input type="checkbox"/>	<input type="checkbox"/>	Inherited or acquired bleeding disorder (e.g. haemophilia, Von Willebrands, liver failure)
<input type="checkbox"/>	<input type="checkbox"/>	Systolic BP $\geq$ 230 / diastolic BP $\geq$ 120 mmHg
<input type="checkbox"/>	<input type="checkbox"/>	Liver disease with coagulopathy

VTE Prophylaxis not required	No Bleeding Risks	Increased bleeding risk
	Prescribe thromboprophylaxis for increased risk as overleaf	Discuss with senior clinical staff before prescribing pharmacological prophylaxis
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ED Management Plan (Tick all that apply)

<b>Thromboprophylaxis Prescribed</b> <i>Start of day of ED attendance as below</i> <input type="checkbox"/> Rivaroxaban <input type="checkbox"/> Enoxaparin <input type="checkbox"/> VTE prophylaxis contraindicated (patient considered at increased risk of bleeding who would be unsuitable for any form of anticoagulation)	<i>TIME</i>	<i>SIGN</i>
<b>Assess baseline coagulation – FBC/COAG</b>	<input type="checkbox"/> YES	<i>SIGN</i>
<b>Does patient need U&amp;E checked today?</b> If gout, hypertension, heart failure, CKD, diabetes; ➤ Ensure U&E available within last 3 months	<input type="checkbox"/> YES	<input type="checkbox"/> NO
<b>For Enoxaparin:</b> Patient required to attend DVT service for LMWH same/next day (≥12 hours for next LMWH, Sat 12-7pm)  Explain to patient 1 week LMWH will be provided at DVT service, including instruction in self-administration of SC enoxaparin and a LMWH pack and sharps bin provided. LMWH will be continued by Orthopaedic Clinic.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
<b>VTE awareness &amp; prevention leaflet supplied</b>	<input type="checkbox"/> YES	<input type="checkbox"/> NO

## DRUG & DOSING (Prescribe on ED Card or OP Prescription for Pharmacy)

Drug	Dosing Regime	Dose	Tick
Rivaroxaban (oral) – <u>use as preferential choice</u> <i>Continue until cast removed/changed to functional brace and weight bearing</i> Exclusions to use of rivaroxaban: <ul style="list-style-type: none"> <li>• Pregnant or breastfeeding women</li> <li>• Liver disease associated with cirrhosis and/or coagulopathy</li> <li>• Concurrent use of the following medications:               <ul style="list-style-type: none"> <li>○ Triazole and imidazole antifungals (except fluconazole)</li> <li>○ Protease inhibitors</li> <li>○ Strong CYP3A4 inducers e.g. rifampicin, phenytoin, carbamazepine, phenobarbital and St John'sWort</li> </ul> </li> <li>• Rivaroxaban should be avoided if CrCl is &lt;15ml/min. Caution should be exercised if CrCl 15 to 29.</li> </ul>		10mg once daily	<input type="checkbox"/>
Enoxaparin (subcutaneous injection) – <u>if rivaroxaban contraindicated but VTE prophylaxis still required</u>  <i>Continue until cast removed/changed to functional brace and weight bearing</i>	Standard dosing	40mg once daily	<input type="checkbox"/>
	Reduced dosing if eGFR <30 or Weight <50Kg	20mg once daily	<input type="checkbox"/>
	Increased dosing if Weight >120Kg	40mg twice daily	<input type="checkbox"/>

<b>Assessor's Name</b>	<b>Assessor's Signature</b>	<b>Date</b>

# Rivaroxaban and Lower Limb Injuries

## Patient Information Leaflet



**This leaflet should be read as well as the patient information leaflet contained in the medication box**

### **Why have I been given Rivaroxaban?**

This medication is used to reduce the risk of blood clots forming in the legs (deep vein thrombosis [DVT]) and, or travelling to the lungs (pulmonary embolism [PE]). You have a lower limb injury that requires immobilisation (not moving about) and your clinician has assessed that you are at an increased risk of a DVT or PE due to the type of injury or other risk factor. These are discussed in more detail below.

Rivaroxaban is widely used to reduce the risk of DVT or PE following common operations such as hip and knee replacements.

It is not currently licensed for use for injuries that are treated without surgery. It has however been successfully used in such cases in several other units in the United Kingdom and it is therefore considered that this is a safe and effective treatment for this indication. Rivaroxaban should be taken for 30 days after injury.

### **Is there an alternative to taking Rivaroxaban?**

The alternative would be to prescribe a daily injection of a medication called enoxaparin. This is also effective but you would need to learn how to inject yourself, and would need to do this every day.

Rivaroxaban is a tablet that you take once a day and is therefore more convenient and comfortable.

### **Who is most at risk of a DVT or PE?**

There are several factors which increase your chance of developing a DVT or PE. Some of the risk factors include:

- Previous DVT or pulmonary embolism (PE).
- Major Orthopaedic operations.
- Trauma.
- Paralysis or immobilisation of lower limbs.
- Family history of DVT or PE.
- Faulty blood clotting.
- Active cancer.
- Recent medical illness (e.g. heart or lung disease, kidney disease; kidney failure or recent heart attack).
- Smoking.
- Obesity or overweight (e.g. BMI more than 30).
- Pregnancy.
- Age over 40 years.
- The contraceptive pill or other hormone treatments which contain oestrogen.
- Very large varicose veins (not operated on).

### **What are the risks of developing a DVT or PE with a plaster cast?**

Fractures, and lower limb plaster casts on the leg for any foot and ankle injuries, are associated with a small risk of a DVT in the leg which can travel to the lung and cause a PE. The risk is very low, particularly if you have a “moon-boot” brace rather than a cast, and you put weight through it when walking.

It is slightly higher with some injuries, such as a rupture of the Achilles tendon. This is thought to be due to a reduction in the calf muscle helping to pump blood back up the leg. These risks are reduced through the use of medication such as Rivaroxaban.

### **What should I do if I experience a side-effect?**

If you experience any bleeding problems (from the nose or gums), unexplained bruising, vomit containing blood or coffee ground material, red urine or black stools, please contact the relevant Orthopaedic Clinic (9.00am to 5.00pm) or Emergency Department below (out with these hours).

RAH Emergency (A&E) Department: ..... 0141 314 7212

RAH Orthopaedic Clinic: ..... 0141 314 6787

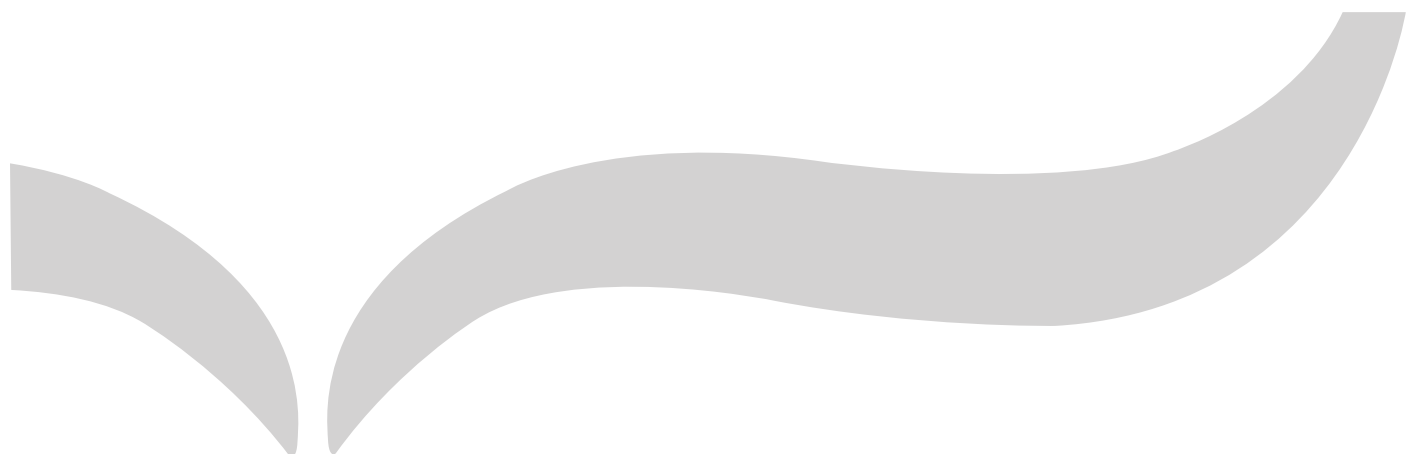
IRH Emergency (A&E) Department: ..... 01475 524166

IRH Orthopaedic Clinic: ..... 01475 504547

VOL Orthopaedic Clinic:..... 01389 817645

VOL Minor Injuries Unit: ..... 01389 817530

NHS 24: ..... 111



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Approval Group: Thrombosis Committee & Cross Sector Orthopaedic Clinic Governance Group