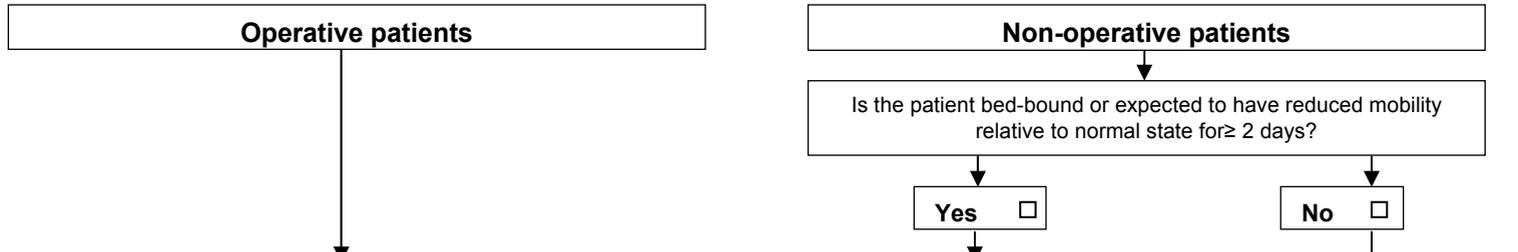


NHS GG&C Adult Risk Assessment for Venous Thromboembolism (VTE)

Trauma and Orthopaedic surgery

- Risk Assessment must be completed for all patients within 24 hours of admission to hospital
- Patients must be reassessed every 48-72 hours or sooner if conditions change
- Reassessment must be documented in Kardex
- Please complete the risk assessment and then sign and date the risk assessment result box at the bottom of the page



Does the patient have any risk factors for thrombosis? (tick all that apply)	
Standard Risk	Increased Risk
Age >60 <input type="checkbox"/>	Known thrombophilia <input type="checkbox"/>
Active cancer or cancer treatment <input type="checkbox"/>	Obesity (BMI >30Kg/m ²) <input type="checkbox"/>
Dehydration <input type="checkbox"/>	Use of oestrogen containing contraceptive therapy <input type="checkbox"/>
Acute trauma/surgical admission <input type="checkbox"/>	Pregnancy or ≤6 weeks post partum (seek specialist advice) <input type="checkbox"/>
Hip or Knee replacement surgery or other major orthopaedic elective surgery <input type="checkbox"/>	Use of hormone replacement therapy or use of tamoxifen <input type="checkbox"/>
Expected significant reduction in mobility relative to their normal state for more than 2 days <input type="checkbox"/>	Personal history or first degree relative with a history of VTE <input type="checkbox"/>
	Varicose veins <input type="checkbox"/>
	Critical care admission e.g. HDU/ITU <input type="checkbox"/>
Surgical procedure with total anaesthetic time/surgical time >90 mins, or >60 min if surgery on lower limb or pelvis <input type="checkbox"/>	Current significant medical condition e.g. Serious Infection, Heart Failure, Respiratory Disease or Inflammatory Disease <input type="checkbox"/>

• No thromboprophylaxis required

• Continue to reassess every 48-72 hours or sooner if condition changes

• Document all reassessment in drug kardex

• **Complete risk assessment result box**

Yes, 1 or more risk factor identified No risk factors identified

Does the patient have any contraindications to pharmacological prophylaxis?	
Active bleeding or risk of active bleeding e.g. New on-set stroke, platelet count <75 10 ⁹ /L, acute liver failure, acute duodenal ulcer or gastric ulcer. <input type="checkbox"/>	Concurrent use of therapeutic anticoagulant (such as Warfarin (IRN>2)) <input type="checkbox"/>
Persistent uncontrolled hypertension (BP ≥ 230/120 mmHg) <input type="checkbox"/>	Untreated inherited bleeding disorder (e.g. haemophilia or Von Willebrands) <input type="checkbox"/>
Surgery expected within the next 12 hours <input type="checkbox"/>	Surgery expected within the next 48 hours and/or risk of clinically important bleeding <input type="checkbox"/>
Acute bacterial endocarditis <input type="checkbox"/>	Spinal surgery <input type="checkbox"/>
Proliferative diabetic retinopathy <input type="checkbox"/>	Trauma with high bleeding risk e.g. Head Injury <input type="checkbox"/>
eGFR <30ml/minute/1.73m ² . Dose reduction if required <input type="checkbox"/>	Other procedure with high bleeding risk <input type="checkbox"/>
Any spinal intervention (prophylactic enoxaparin is contraindicated for 12 hours before spinal and epidural anaesthetics and lumbar puncture. Enoxaparin contraindicated for 4 hours after spinal and epidural anaesthetics and removal of epidural catheter.) <input type="checkbox"/>	

• Discuss with senior clinical staff before prescribing pharmacological prophylaxis

• Consider mechanical prophylaxis e.g. AES

• Reassess patient every 48-72 hours or sooner if condition changes

• **Complete risk assessment result box**

No contraindications to pharmacological prophylaxis identified Contraindications to pharmacological prophylaxis identified

Contraindication to AES: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Peripheral Neuropathy <input type="checkbox"/>	Peripheral vascular disease <input type="checkbox"/>
Cellulitis or gross oedema <input type="checkbox"/>	Leg deformity or fragile skin <input type="checkbox"/>
Leg/foot ulcer <input type="checkbox"/>	Allergy <input type="checkbox"/>
Unusual leg shape/size <input type="checkbox"/>	

Prescribe thromboprophylaxis for standard/increased risk as denoted overleaf	Document all reassessments on the kardex
Continue to review every 48-72 hours or sooner if condition changes	Completed risk assessment result box

Risk assessment result – please tick all that apply			
VTE risk factors assessed: Yes <input type="checkbox"/> No <input type="checkbox"/>	Bleeding risk factors assessed: Yes <input type="checkbox"/> No <input type="checkbox"/>	Patient Informed: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Prescribed: Thromboprophylaxis in accordance with the guidance overleaf <input type="checkbox"/>	AES <input type="checkbox"/> None <input type="checkbox"/>	Information leaflet supplied: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Print assessor's name: _____	Signature: _____	Date: _____	

It is the responsibility of the consultant in charge to decide on the appropriate VTE prophylaxis. Follow recommendations recorded in the patient specific VTE prophylaxis instruction sheet. Contra-indications or drug interactions with any of these agents must be observed – in doubt discuss directly with consultant's team.

Thromboprophylaxis on Admission

Procedure	During admission	
<ul style="list-style-type: none"> • Hip fracture • Lower limb fractures • Total hip replacement • Other major elective surgery to lower limbs 	Standard VTE risk	Enoxaparin SC 40mg once daily started on the day of surgery at 6pm or at least 4 hours after surgery, whichever is latest Reduce dose to 20mg if eGFR <30ml/min or if patient weights <50Kg
	Increased VTE risk	Enoxaparin SC 40mg once daily started on the day of surgery at 6pm or at least 4 hours after surgery, whichever is latest Reduce dose to 20mg if eGFR <30ml/min or if patient weights <50Kg
Total knee replacement	Standard VTE risk	Aspirin orally 150mg daily Or Enoxaparin SC 40mg once daily started on the day of surgery at 6pm or at least 4 hours after surgery, whichever is latest Reduce dose to 20mg if eGFR <30ml/min or if patient weights <50Kg
	Increased VTE risk	Enoxaparin SC 40mg once daily started on the day of surgery at 6pm or at least 4 hours after surgery, whichever is latest Reduce dose to 20mg if eGFR <30ml/min or if patient weights <50Kg
<p>Rivaroxaban (under consultant advice only) A small proportion of patients may require thromboprophylaxis with rivaroxaban following total hip or total knee replacement – in these cases follow orthopaedic and/or haematology consultant recommendations. Check BNF for advice on dose and duration of treatment. Discuss arrangements with clinical pharmacist if patient is to be discharged on rivaroxaban. <i>Note that rivaroxaban is licensed for orthopaedics thromboprophylaxis only after elective hip or knee replacement and its use following an initial course of enoxaparin is off-label.</i></p>		
Other elective surgery (including upper limb, arthroscopy and forefoot surgery)	Standard VTE risk	No need for pharmacological; thromboprophylaxis
	Increased VTE risk	Follow recommendations from orthopaedic and/or haematology consultant
Elective spinal surgery	Thromboprophylaxis assessment done on a case-by-case basis depending on the type of surgery and risk factors – follow recommendations from spinal surgeon	
Multiple Trauma	Thromboprophylaxis assessment done on a case-by-case basis depending on the extent of injuries – follow recommendations from orthopaedic and/or haematology consultant	
Spinal cord injury	Thromboprophylaxis assessment done on a case-by-case basis depending on the type of injury – follow recommendations from the spinal injuries team	
Orthopaedic patients who do not require surgery	Follow thromboprophylaxis guideline in the Therapeutics Handbook	

Thromboprophylaxis on Discharge

Procedure	On discharge	
•Hip fracture	Standard VTE risk	Continue enoxaparin SC for an overall treatment course of 2 weeks or until discharge (whichever is sooner)
	Increased VTE risk	Continue enoxaparin SC for an overall treatment course of 5 weeks*
<ul style="list-style-type: none"> •Lower limb fractures •Total hip replacement •Other major elective surgery To lower limbs •Total knee replacement 	Standard VTE risk	Aspirin orally 150mg daily for 5 weeks
	Increased VTE risk	Continue enoxaparin SC for an overall treatment course of 5 weeks*
<p>Rivaroxaban (under consultant advice only) A small proportion of patients may require thromboprophylaxis with rivaroxaban following total hip or total knee replacement – in these cases follow orthopaedic and/or haematology consultant recommendations. Check BNF for advice on dose and duration of treatment. Discuss arrangements with clinical pharmacist if patient is to be discharged on rivaroxaban. <i>Note that rivaroxaban is licensed for orthopaedics thromboprophylaxis only after elective hip or knee replacement and its use following an initial course of enoxaparin is off-label.</i></p>		
Other elective surgery (including upper limb, arthroscopy and forefoot surgery)	Standard VTE risk	No need for pharmacological; Thromboprophylaxis
	Increased VTE risk	Follow recommendations from orthopaedic and/or haematology consultant
Elective spinal surgery	Thromboprophylaxis assessment done on a case-by-case basis depending on the type of surgery and risk factors – follow recommendations from spinal surgeon	
Multiple Trauma	Thromboprophylaxis assessment done on a case-by-case basis depending on the extent of injuries – follow recommendations from orthopaedic and/or haematology consultant	
Spinal cord injury	Thromboprophylaxis assessment done on a case-by-case basis depending on the type of injury – follow recommendations from the spinal injuries team	
Orthopaedic patients who do not require surgery	Follow thromboprophylaxis guideline in the Therapeutics Handbook	

*Arrangements for the supply and administration of enoxaparin after discharge are currently under discussion with Primary Care. Contact clinical pharmacist for information on local arrangements in your hospital
Thromboprophylaxis Guidelines for Orthopaedic Patients