

RISK ASSESSMENT FOR VENOUS THROMBOEMBOLISM (VTE) FOR ADOLESCENTS AGED ≥13 YRS IN GENERAL SURGERY

IF 13 years or above

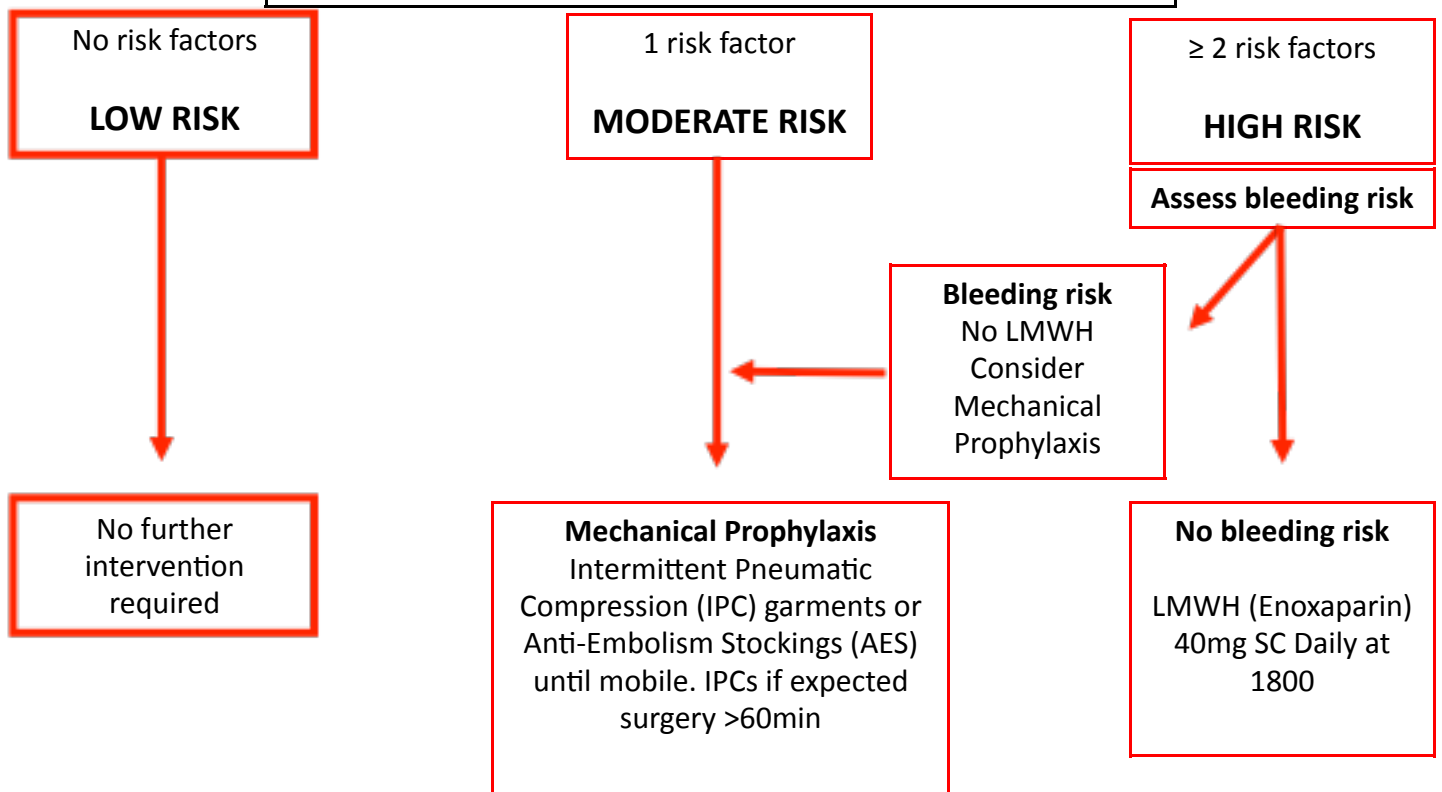


AND Significantly reduced mobility expected for > 48hrs



THEN Assess for risk factors using the table overleaf and refer to flowchart below for intervention(s)

All patients
Ensure adequate hydration
Mobilise early
Modify risk factors where present
Remove Central Venous Catheters where possible



Reassess risk at 48 & 72 hours

CHILDREN UNDER 40KG:
IPC and AES garments are ineffective
If ≥ 2 risk factors and no bleeding risk give LMWH (Enoxaparin) 0.5mg/Kg SC 12 hourly (06:00 & 18:00)

EXCLUDES:
Children with current thrombosis
Children under care of haematologist

RISK ASSESSMENT FOR VENOUS THROMBOEMBOLISM (VTE) FOR ADOLESCENTS AGE 13 YEARS +			
Date of admission	PLEASE AFFIX PATIENT LABEL HERE		
Risk assessed by			
Designation			
Signature			
Date			
Review the patient related factors shown on the assessment sheet for thrombosis risk, ticking each and any box that applies. Clinicians may consider further risks apply in addition to those listed.			
Bleeding risk			
Patient related	Tick	Admission Related	Tick
Acquired bleeding disorders (such as acute liver failure)		Neurosurgery, spinal surgery or eye surgery	
Untreated inherited bleeding disorders (such as haemophilia and von Willebrand's disease)		Neurosurgery, spinal surgery or eye surgery	
Concurrent use of anticoagulants known to increase the risk of bleeding (such as warfarin with INR >2)		Lumbar puncture/epidural/spinal anaesthesia expected within the next 12 hours	
Thrombocytopenia		Lumbar puncture/epidural/spinal anaesthesia within the previous 4 hours	
Uncontrolled systolic hypertension (>230/120 mmHg)		Active bleeding	
Thrombosis Risk			
Patient related	Tick	Admission Related	Tick
Central venous Catheter		Significantly reduced mobility for 3 days or more	
Active cancer or cancer treatment		Severe Trauma with ISS score >9	
Dehydration		Spinal cord injury with paralysis	
Known thrombophilias		Total anaesthetic + surgical time > 90 minutes	
Obesity > 99th Centile		Acute severe sepsis	
One or more significant medical comorbidities (e.g. congenital or low output heart disease, sickle cell disease, metabolic or inflammatory conditions)		Surgery involving pelvis or lower limb with a total anaesthetic + surgical time > 60 minutes	
Personal history of VTE first-degree relative with a history of VTE age <40 years		Critical care admission intubated and ventilated	
Use of oestrogen-containing contraceptive therapy		Severe burns	
Pregnancy or < 6 weeks post partum (see NICE guidance for specific risk factors)			
If an increased risk of bleeding is documented on the risk assessment – thromboprophylaxis with LMWH is relatively contraindicated			
Prescribe the appropriate intervention if required and complete all the prescription chart documentation			
Outcome (tick any that apply)			
No Thromboprophylaxis			
Mechanical Thromboprophylaxis			
LMWH			
Completed by :			
Date :			

STOP THE CLOT!

VTE PROPHYLAXIS CONSIDERATIONS

ANTI-EMBOLISM STOCKINGS (AES)

Are only useful in children or adolescents $\geq 40\text{kg}$

Should be removed daily for hygiene and skin inspection purposes

Should be fitted and worn from admission until return of normal mobility



INTERMITTENT PRESSURE COMPRESSION GARMENTS (IPCs)

Should be used for adolescents ≥ 13 years, weighing $\geq 40\text{kg}$ and who are expected to have a procedure lasting ≥ 60 minutes

Can be used **up to** a maximum calf circumference of 43cm

Can be used in conjunction with AES and LMWH

Contra-indications to IPCs

- Massive leg oedema or pulmonary oedema (congestive heart failure)
- Severe peripheral vascular disease or neuropathy
- Local leg condition where the IPC would interfere – dermatitis, poor skin viability, recent skin graft, leg wound infection

LOW MOLECULAR WEIGHT HEPARIN (LMWH) PROPHYLAXIS

ENOXAPARIN

$\geq 40\text{kg}$	40mg	Subcutaneous	Once daily
$< 40\text{kg}$	0.5mg/kg	Subcutaneous	Twice daily

Renal impairment – dose and time interval needs to be adjusted in patients with altered creatinine clearance, Anti Xa levels can be monitored to ensure clearance and safety, (discuss with haematologist).

TIMING

Once daily dose – 18.00, start on day of surgery ie. After surgery completed

Twice-daily dose – 06.00 and 18.00

Administer via s/c catheter to reduce number of needle insertions

REGIONAL ANAESTHESIA – is NOT contra-indicated with LMWH.

However, careful timing of LMWH is essential

- Insertion of a needle or epidural, removal or repositioning of catheter – at least **12 hours after LMWH dose**
- Indwelling epidural catheter – 1st post-op dose of LMWH should be given at least **12 hours after surgery**
- Removal of epidural – at least **10-12 hours after the last dose** of LMWH (or at least 8 hours after last dose if twice daily dosing) and the next dose not given until at least **4 hours after epidural catheter removal**

ORAL CONTRACEPTIVE PILL (OCP)

In post-pubertal girls, consider withholding the OCP for 4 weeks prior to planned surgery.

Balance the risk of VTE with the risk of pregnancy.



Belfast Health and
Social Care Trust

