

First Name:  
Surname:  
Hospital No:  
NHS No:  
DoB:  
Ward: Hospital:

**ADOLESCENT RISK ASSESSMENT FOR VENOUS THROMBOEMBOLISM (VTE)**

A risk assessment should be conducted for **ALL ADOLESCENT (13 years or older) OR POSTPUBERTAL PATIENTS** on admission to hospital or in preadmission. It is recommended that all patients should be re-assessed **every 48 to 72 hours** during their inpatient stay as risk may change. Please use a new form for reassessments if risks for bleeding or thrombosis change.

Thrombosis risk and bleeding risk should be considered together for each individual patient.

**STEP ONE**

- Review the patient and admission related factors shown on the assessment sheet for thrombosis risk, scoring each box that applies (*all boxes must be scored*).
- The risk factors identified are not exhaustive. Clinicians may consider additional risks in individual patients and offer thromboprophylaxis as appropriate.

THROMBOSIS RISK			
Patient related	Score	Admission related	Score
Central venous line in situ		Likely to have significantly reduced mobility for 3 days or more	
Active cancer or cancer treatment		Major orthopaedic surgery	
Dehydration		Acute surgical admission with inflammatory or intra-abdominal condition	
Known high risk thrombophilia in patient (Protein C, Protein S, ATIII or combination defects)		Total anaesthetic + surgical time >90minutes	
Obesity (BMI >30 , weight [kg]/ height <sup>2</sup> [m] )		Intubated + ventilated	
One or more significant medical co-morbidities* (e.g. nephrotic syndrome, congenital heart disease, metabolic diseases, sickle cell disease, inflammatory bowel disease, low cardiac output state) *Score one point per condition		Acute severe sepsis	
Personal history of VTE		Severe trauma	
First degree relative with a history of VTE under the age of 40 years		Severe burns	
Pregnancy or < 6 weeks post partum		Medication known to increase thrombotic risk* Use of oestrogen-containing contraceptive therapy Asparaginase, Steroids, TPN *Score one point each	
Score 1 point for each risk factor identified		Total Score=	

**STEP TWO**

BLEEDING RISK			
Patient related	Yes/No	Admission related	Yes/no
Active bleeding		Neurosurgery or eye surgery	
Acquired bleeding disorders (such as acute liver failure)		Spinal surgery within previous 24 hours	
Concurrent use of anticoagulants known to increase the risk of bleeding		Other procedure with high bleeding risk	
Acute stroke		Lumbar puncture / epidural / spinal anaesthesia expected within the next 12 hours	
Thrombocytopenia (platelets < 50 x 10 <sup>9</sup> / L)		Lumbar puncture / epidural / spinal anaesthesia within the previous 4 hours	
Uncontrolled systolic hypertension		Significant head injury	
Inherited bleeding disorders (such as haemophilia and von Willebrand's disease)			
Record each bleeding risk identified			

Review the patient related and admission related bleeding risk factors and mark each box that applies. If any bleeding risk factor is documented on the risk assessment- thromboprophylaxis with LMWH is relatively contraindicated unless approved by senior haematologist.

In all patients, ALWAYS consider general measures to reduce the risk of VTE:

- Maintain adequate hydration
- Mobilise early
- Remove Central Venous Lines as soon as possible

**In all at-risk patients, ALWAYS :-**

Refer to appendix and consider specific measures to reduce the risk of VTE:

- Mechanical prophylaxis, e.g. Graduated compression stockings/TEDs, IPC devices
- Thromboprophylaxis with low molecular weight heparin (LMWH)

The team looking after the patient must bear in mind the following:

- Although the risk of VTE increases during adolescence compared to younger children, the absolute risk remains low compared to older adults.
- There is little evidence to support the use of specific measures, including LMWH, to reduce the risk of VTE in this age group
- Physical methods to reduce the risk of VTE will not be suitable in some patients due to co-existing morbidity. In such situations consider LMWH until risks factors resolve or physical prophylaxis is feasible.
- **If an increased risk of bleeding is documented on the risk assessment- thromboprophylaxis with LMWH should not be administer unless approved by senior haematologist**

OUTCOME	Thromboprophylaxis not required	Mechanical thromboprophylaxis	LMWH
<i>(please tick any that apply)</i>			

Completed by: ..... Date: ..... Time: .....

Designation:..... GMC number: .....

*Prescribe the appropriate intervention if required, and complete all the prescription chart documentation. File this assessment in the patient's medical notes.*

**Appendix: Recommended method of VTE risk reduction in at risk patients:**

## **Surgical**

Risk classification and management	Thrombosis risk score	
	1-3	4+
<b>Low risk</b> <ul style="list-style-type: none"> <li>• Ensure good hydration</li> <li>• Early mobilisation</li> </ul>	Any surgery <30 min duration	Any surgery <30 min duration
<b>Medium risk</b> <ul style="list-style-type: none"> <li>• Graduated compression stockings</li> <li>• Flowtron boots in theatres</li> <li>• Plus measures for low risk</li> </ul>	Any surgery >30 min duration	Any surgery >30 min duration
<b>High risk</b> <ul style="list-style-type: none"> <li>• Consider enoxaparin</li> <li>• Plus measures for medium and low risk</li> </ul>	Major orthopaedic surgery (non-trauma)	Any major surgery Or major trauma

## **Non-surgical or PICU**

Risk classification and management	Thrombosis risk score	
	1-3	4+
<b>Low risk</b> <ul style="list-style-type: none"> <li>• Ensure good hydration</li> <li>• Early mobilisation</li> </ul>	Intubated and ventilated <48h	All patients at least medium risk
<b>Medium risk</b> <ul style="list-style-type: none"> <li>• Graduated compression stockings</li> <li>• Flowtron boots in theatres</li> <li>• Plus measures for low risk</li> </ul>	Intubated and ventilated >48h	Not ventilated
<b>High risk</b> <ul style="list-style-type: none"> <li>• Consider enoxaparin</li> <li>• Plus measures for medium and low risk</li> </ul>	Not applicable unless physical measures contra-indicated	Intubated and ventilated