

VTE Prophylaxis Protocol Template – Adult In-Patients <Modify for local use>

Assess all patients within 24 hours, repeat regularly and if clinical condition changes

Step 1: VTE risk assessment	Medical score	Surgical/trauma risk factor	Local decision where guidelines recommendations differ. Medical scores in brackets are based on relative risk, but are not in the original Padua Prediction Score.	Medical score	Surgical/trauma risk factor
Surgical: Surgery/anaesthesia 90 mins or greater, or to pelvis or lower limb 60 mins or greater ¹					
Surgical: Acute surgical admission with inflammatory condition or intra-abdominal condition ¹					
Immobility expected for at least 3 days ¹⁻⁴ (confined to bed +/- bathroom ^{2,3})	3		Ischaemic stroke ¹⁻⁴ (discuss with stroke team) or Acute MI ¹⁻⁴	1	
Active cancer or treatment (chemo-or radiotherapy within 6 months or metastases) ¹⁻⁴	3		Acute infection ¹⁻⁴ or Acute or chronic inflammatory disorder ¹⁻⁴	1	
Previous DVT/PE ¹⁻⁴	3		Local decision: Aged 70 or over ^{2,3} or 60 or over ¹	1	
Thrombophilia ¹⁻⁴	3		Local decision: Surgery in previous 30 days ^{2,3}	2	
Taking oestrogen-containing contraceptive or HRT ¹⁻⁴	1		Local decision: Pregnant or up to 6 weeks post-partum ^{1,4}	(3)	
BMI 30 or greater (obese) ¹⁻⁴	1		Local decision: Central venous catheter ⁴	(3)	
Heart or respiratory failure ¹⁻⁴	1		Local decision: Varicose veins ⁴ with phlebitis ¹	(1)	
High risk: Surgical: Any risk factor; Medical: Score 4 or greater					

Step 2: Bleeding risk assessment (any risk factor below = contra-indication to LMWH / heparin)	
Active bleeding ^{1,3}	Epidural or spinal or lumbar puncture in last 4 hours or expected in next 12 hours ^{1,3}
Platelets less than 50 x 10 ⁹ /L ³ (or local decision: 75 x 10 ⁹ /L ¹)	
Bleeding disorder, e.g. haemophilia	Undergoing procedure with high bleeding risk, e.g. neurosurgery, spinal or eye surgery ^{1,3}
Acquired bleeding disorder e.g. liver failure with PT over 15 ^{1,3}	History of Heparin-Induced Thrombocytopenia (HIT): Contact haematology or pharmacy
Acute stroke (discuss with stroke team) ^{1,3}	Already receiving anticoagulant at therapeutic levels/dose
Blood pressure 230 systolic or 120 diastolic ^{1,3} or greater	e.g. warfarin, dabigatran, rivaroxaban, edoxaban, apixaban, heparin, enoxaparin: No additional prophylaxis

Step 3: Recommended prophylaxis (local decision re duration; e.g. until low-risk for VTE on risk assessment, until discharged, or prolonged e.g. post-total hip replacement, total knee replacement or major abdominal surgery for cancer)				
All patients	Adequate hydration, early mobilisation, leg exercises			
All surgical patients (or at-risk surgical patients)	Mechanical compression: Anti-embolism stockings* +/- intermittent pneumatic compression devices / foot pumps			
High-risk medical (score 4 or greater) with C/I to heparins	* Do not use in severe peripheral vascular disease, severe dermatitis, massive leg oedema, leg deformity, peripheral neuropathy, recent skin graft, allergy to fabric or acute stroke.			
	Weight 50-100 kg and GFR over 30 mL/min	Weight 101-150 kg	Weight less than 50 kg	GFR less than 30 mL/min
High-risk medical (score 4 or greater), no C/I	Tinzaparin 4500 units ⁵ or enoxaparin 40 mg once daily ⁵	Consider tinzaparin 4500 units bd or enoxaparin 40 mg bd	Consider tinzaparin 3500 units or enoxaparin 20mg once daily	Heparin 5000 units twice daily or Tinzaparin 3500 units daily (caution ⁵) or enoxaparin 20 mg daily ⁵ (contra-indicated in GFR less than 15 mL/min ⁵)
High-risk surgical (any risk factor), no C/I				
Moderate-risk surgical (local decision: delete if no moderate-risk category)	Tinzaparin 3500 units ⁵ or enoxaparin 20 mg once daily ⁵	Consider tinzaparin 4500 units once daily or enoxaparin 40 mg once daily		
Low-risk medical (score 3 or lower) or Low-risk surgical (no risk factor)	No heparin or low molecular weight heparin Medical patients: no mechanical compression unless patient is high-risk with contra-indication to heparins Surgical patients: local decision: mechanical compression in at-risk or all surgical patients			

Step 4: Prescribe appropriate prophylaxis on medication record
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1. Venous thromboembolism: reducing the risk (NICE Clinical Guideline 92); January 2010
2. Barbar S et al. ...The Padua Prediction Score. J Thromb Haemost 2010; 8:2450-7
3. Kahn SR et al. Chest 2012; 141, 2 Suppl. (ACCP 9th Edition)

4. SIGN guideline 122; December 2010
5. Summaries of Product Characteristic, www.hpra.ie