

# Venous Thromboembolism Risk Factor Assessment

Patient's Name: \_\_\_\_\_ Age: \_\_\_\_ Sex: \_\_\_\_ Wgt: \_\_\_\_ lbs Joseph A. Caprini, MD, MS, FACS, RVT

## Choose All That Apply

### Each Risk Factor Represents 1 Point

- Age 41-60 years
- Minor surgery planned
- History of prior major surgery
- Varicose veins
- History of inflammatory bowel disease
- Swollen legs (current)
- Obesity (BMI >30)
- Acute myocardial infarction (< 1 month)
- Congestive heart failure (< 1 month)
- Sepsis (< 1 month)
- Serious lung disease incl. pneumonia (< 1 month)
- Abnormal pulmonary function (COPD)
- Medical patient currently at bed rest
- Leg plaster cast or brace
- Other risk factors \_\_\_\_\_

### Each Risk Factor Represents 3 Points

- Age over 75 years
- Major surgery lasting 2-3 hours
- BMI > 50 (venous stasis syndrome)
- History of SVT, DVT/PE
- Family history of DVT/PE**
- Present cancer or chemotherapy
- Positive Factor V Leiden
- Positive Prothrombin 20210A
- Elevated serum homocysteine
- Positive Lupus anticoagulant
- Elevated anticardiolipin antibodies
- Heparin-induced thrombocytopenia (HIT)
- Other thrombophilia Type \_\_\_\_\_

### Each Risk Factor Represents 2 Points

- Age 60-74 years
- Major surgery (> 60 minutes)
- Arthroscopic surgery (> 60 minutes)
- Laparoscopic surgery (> 60 minutes)
- Previous malignancy
- Central venous access
- Morbid obesity (BMI >40)

### Each Risk Factor Represents 5 Points

- Elective major lower extremity arthroplasty
- Hip, pelvis or leg fracture (< 1 month)
- Stroke (< 1 month)
- Multiple trauma (< 1 month)
- Acute spinal cord injury (paralysis)(< 1 month)
- Major surgery lasting over 3 hours

### For Women Only (Each Represents 1 Point)

- Oral contraceptives or hormone replacement therapy
- Pregnancy or postpartum (<1 month)
- History of unexplained stillborn infant, recurrent spontaneous abortion ( $\geq 3$ ), premature birth with toxemia or growth-restricted infant

Total Risk Factor Score

# VTE Risk and Suggested Prophylaxis For Surgical Patients

Total Risk Factor Score	Incidence of DVT	Risk Level	Prophylaxis Regimen	Legend
0-1	<10%	Low Risk	No specific measures; early ambulation	<b>ES</b> - Elastic Stockings <b>IPC</b> - Intermittent Pneumatic Compression <b>LDUH</b> - Low Dose Unfractionated Heparin <b>LMWH</b> - Low Molecular Weight Heparin <b>FXa I</b> - Factor X Inhibitor
2	10-20%	Moderate Risk	ES, IPC, LDUH (5000U BID), or LMWH (<3400 U)	
3-4	20-40%	High Risk	IPC, LDUH (5000U TID), or LMWH (>3400U)	
5 or more	40-80% 1-5% mortality	Highest Risk	Pharmacological: LDUH, LMWH (>3400 U)*, Warfarin*, or FXa I* alone or in combination with ES or IPC	

\*Use for major orthopedic surgery

## Prophylaxis Safety Considerations: Check box if answer is 'YES'

### Anticoagulants: Factors Associated with Increased Bleeding

<input type="checkbox"/> Is patient experiencing any active bleeding?
<input type="checkbox"/> Does patient have (or has had history of) heparin-induced thrombocytopenia?
<input type="checkbox"/> Is patient's platelet count <100,000/mm <sup>3</sup> ?
<input type="checkbox"/> Is patient taking oral anticoagulants, platelet inhibitors (e.g., NSAIDS, Clopidogrel, Salicylates)?
<input type="checkbox"/> Is patient's creatinine clearance abnormal? If yes, please indicate value _____
If any of the above boxes are checked, the patient may not be a candidate for anticoagulant therapy and you should consider alternative prophylactic measures: elastic stockings and/or IPC

### Intermittent Pneumatic Compression (IPC)

<input type="checkbox"/> Does patient have severe peripheral arterial disease?
<input type="checkbox"/> Does patient have congestive heart failure?
<input type="checkbox"/> Does patient have an acute superficial/deep vein thrombosis?
If any of the above boxes are checked, then patient may not be a candidate for intermittent compression therapy and you should consider alternative prophylactic measures.

Based on: Geerts WH et al: Prevention of Venous Thromboembolism. Chest 2004;126(suppl 3):338S-400S; Nicolaidis AN et al: 2001 International Consensus Statement: Prevention of Venous Thromboembolism, Guidelines According to Scientific Evidence.; Arcelus JI, Caprini JA, Traverso CI. International perspective on venous thromboembolism prophylaxis in surgery. Semin Thromb Hemost 1991;17(4):322-5.; Borow M, Goldson HJ. Postoperative venous thrombosis. Evaluation of five methods of treatment. Am J Surg 1981;141(2):245-51.; Caprini JA, Arcelus I, Traverso CI, et al. Clinical assessment of venous thromboembolic risk in surgical patients. Semin Thromb Hemost 1991;17(suppl 3):304-12.; Caprini JA, Arcelus JI et al: State-of-the-Art Venous Thromboembolism Prophylaxis. Scope 2001; 8: 228-240.; Caprini JA, Arcelus JI, Reyna JJ. Effective risk stratification of surgical and nonsurgical patients for venous thromboembolic disease. *Seminars in Hematology*, April 2001;38(2)Suppl 5:12-19.; Caprini, JA. Thrombosis risk assessment as a guide to quality patient care, Dis Mon 2005;51:70-78.; Oger E: Incidence of Venous Thromboembolism: A Community-based Study in Western France. Thromb Haemost 2000; 657-660.; Turpie AG, Bauer KA, Eriksson BI, et al. Fondaparinux vs. Enoxaparin for the Prevention of Venous Thromboembolism in Major Orthopedic Surgery: A Meta-analysis of 4 Randomized Double-Blind Studies. Arch Intern Med 2002; 162(16):1833-40.; Ringley et al: Evaluation of intermittent pneumatic compression boots in congestive heart failure. American Surgeon 2002; 68(3): 286-9.; Morris et al. Effects of supine intermittent compression on arterial inflow to the lower limb. Archives of Surgery 2002. 137(11):1269-73.; Sugarman HJ et al, Ann Surg: 234 (1) 41-46, 2001

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Examiner \_\_\_\_\_ Date \_\_\_\_\_