



VENOUS THROMBOEMBOLISM PREVENTION IN ACUTE CARE

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Goal

TO PREVENT VTE IN HOSPITALIZED ADULT PATIENTS BY
IMPLEMENTING STRATEGIES WHICH INCREASE THE USE OF
EVIDENCE-BASED THROMBOPROPHYLAXIS

Background

- Venous thromboembolism (VTE) is one of the most common, costly and preventable complications of hospitalization.^{1,2}
- VTE comprises both deep vein thrombosis (DVT) and pulmonary embolism (PE).
- The risk of VTE in hospitalized patients, if thromboprophylaxis is not used, is 10 to 80%.¹
- Almost all hospitalized patients are at risk for VTE and this risk may persist after discharge.
- The routine use of thromboprophylaxis has unequivocally been shown to substantially reduce clinically-important thromboembolic complications after hospitalization.^{1,3}
- The prevention of VTE is the #1 ranked patient safety practice for hospitals.⁴

The following patient groups should be included:

- Patients with documented contraindication to anticoagulant prophylaxis (mechanical prophylaxis is appropriate)
- Patients with designated “DNR” unless all care is being withdrawn
- Patients with cognitive impairment

Due to reduced evidence at this time, currently these patient groups are not addressed:

- Pediatric patients
- Obstetrics
- Psychiatry/Mental Health
- Rehabilitation
- Long-term care

Intervention Measures

Appropriate VTE Prophylaxis:

- Evidence-based prophylaxis **AND**
- Started within 24 hours after admission or after surgery-end-time

1 Geerts WH, Pineo GF, Heit JA, et al. Prevention of venous thromboembolism. The Seventh ACCP Conference on Antithrombotic and Thrombolytic Therapy. Chest 2004;126:338S-400S
2 MacDougall DA, Feliu AU, Boccuzzi SJ, Lin J. Economic burden of deep-vein thrombosis, pulmonary embolism, and post-thrombotic syndrome. Am J Health Syst Pharm 2006;63(20 Suppl 6):S5-S15
3 Geerts WH, Bergqvist D, Pineo GF, et al. Prevention of venous thromboembolism. The Eighth ACCP Conference on Antithrombotic Therapy. Chest 2008;133(Suppl):381S-453S
4 Shojania under Contract No. 290-97-0013). AHRQ Publication No. 01-E058, Rockville, MD. Agency for Healthcare Research and Quality. 2001:1-8, 332-346. Available at: www.ahrq.gov/clinic/ptsafety/pdf/ptsafety.pdf

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Appropriate Doses of Anticoagulant Prophylaxis

Agent	Comments	Recommended Dose(s)*
LMWH** (Low molecular weight heparin)	dalteparin (Fragmin®)	5,000 units subcutaneously once daily
	enoxaparin (Lovenox®)	40 mg subcutaneously once daily /or 30 mg subcutaneously twice daily
	Tinzaparin (Innohep®)	4,500 units subcutaneously once daily
Heparin**		5,000 units subcutaneously every 12 hours /or every 8 hours
Fondaparinux (Arixtra®)		2.5 mg subcutaneously once daily
Rivaroxaban (Xarelto®)	Hip or knee replacement surgery prophylaxis only	10 mg by mouth once daily
Dabigatran (Pradax®)	Hip or knee replacement surgery prophylaxis only	220 mg by mouth once daily (150 mg if age >75 or CrCl 30-50 ml/min)
Apixaban (Eliquis®)	Hip or knee replacement surgery prophylaxis only	2.5 mg by mouth twice daily

* recommended dose may be altered by renal dysfunction, body weight, and pregnancy

** a preoperative dose may be given as appropriate

Duration

VTE Prophylaxis should continue until discharge or at least 10 days after surgery if post-op LOS >10 days **AND** continued post-discharge in select patients (e.g. post-major orthopaedic surgery)

Resources

- **Pocket Card:** a pocket card size summary is available at: www.ecsglobal.com/mulliganmarketing/org_products.ecs/authenticate?start_list=0&end_list=8&pwd=health_care
- **Order Sets:** examples of Standardized Order Sets addressing VTE are available at: www.saferhealthcarenow.ca/EN/Interventions/vte/Documents/VTE%20Getting%20Started%20Kit.pdf
- Join the **Community of Practice** dedicated to VTE at: www.tools.patientsafetyinstitute.ca
- Keep current on the **activities** surrounding the VTE intervention on the *Safer Healthcare Now!* website at: www.saferhealthcarenow.ca/EN/Interventions/vte/Pages/default.aspx