Appendix 1 (part 1 of 2). Preprinted order for venous thromboembolism prophylaxis, developed and used by the Burnaby Hospital.

IF YOU RECEIVED THIS FACSIMILE IN ERROR, PLEASE CALL 604-806-8886 IMMEDIATELY

Providence HEALTH CARE **PRESCRIBER'S ORDERS**

NO DRUG WILL BE DISPENSED OR ADMINISTERED
WITHOUT A COMPLETED
CAUTION SHEET
ALLERGY/INTOLERANCE STATUS FORM (PHC-PH047)

DATE AND TIME

VTE RISK ASSESSMENT AND PROPHYLAXIS ORDERS (REGIONAL)

(items with check boxes must be selected to be ordered) Page 1 of 1

Patient Weight: _____ kg Platelet count: _____ x 10^9/L on (Date): _____

Refer to VTE Risk Assessment And Thromboprophylaxis Recommendations on reverse

RISK ASSESSMENT:

- ☐ Low risk: Early ambulation; no anticoagulant or mechanical prophylaxis
- ☐ Moderate or High risk; order anticoagulant prophylaxis unless contraindicated (indicate reason below):

Contraindications to anticoagulant prophylaxis:

- ☐ Active bleeding of clinical significance requiring intervention
- ☐ High risk of serious bleeding or bleeding into a critical site (e.g. intracranial, intraspinal, pericardial, intraocular, retroperitoneal, intra-articular)
- ☐ Known major bleeding disorder or acquired coagulopathy (consider Hematology consult)
- ☐ Platelet count less than 50 x 10^9/L (consider Hematology consult)
- ☐ History of heparin-induced thrombocytopenia (HIT) see Footnotes and Precaution 7 on reverse
- ☐ Patient already receiving therapeutic anticoagulation

Other contraindication (specify): _____

Reassess daily to start anticoagulant prophylaxis when contraindication resolves

ANTICOAGULANT PROPHYLAXIS: see Footnotes and Precautions 6 to 9 on reverse

Give first post-op dose at (time): _____ on (date): _____

- ☐ dalteparin 5000 units subcutaneous daily at 18:00 until discharge ∗OR∗
- ☐ for patients with severe renal impairment, heparin 5000 units subcutaneous Q12H until discharge ∗OR∗

Other: _____

Reason: _____

Monitor patients with epidural catheter receiving anticoagulant prophylaxis for symptoms and signs of spinal hematoma

Epidural catheter should not be removed within 12 hours of a dose of dalteparin or heparin
After epidural catheter removal, dalteparin or heparin should not be given for at least 2 hours

MECHANICAL PROPHYLAXIS: (only when anticoagulant prophylaxis contraindicated)

- ☐ Sequential compression device (SCD)
- ☐ Mechanical prophylaxis contraindicated (see back for list of contraindications)

Apply to lower limb(s) continuously until anticoagulant prophylaxis starts or discharge

Interrupt for skin care, assessments, toileting and ambulation only

Printed Name | Signature | College ID | Pager

EPHCPH408 **ALL NEW ORDERS MUST BE FLAGGED**

Form No. PHC-PH408 (R. Dec 15-11) **FAX COMPLETED ORDERS TO PHARMACY PLACE ORIGINAL IN PATIENT'S CHART**

Supplemental material for Rafizadeh R, Turgeon RD, Batterink J, Su V, Lau A. Characterization of venous thromboembolism risk in medical inpatients using different clinical risk assessment models. *Can J Hosp Pharm*. 2016;69(6):454-9.

Appendix 1 (part 2 of 2). Preprinted order for venous thromboembolism prophylaxis, developed and used by the Burnaby Hospital.

VTE RISK ASSESSMENT AND THROMBOPROPHYLAXIS RECOMMENDATION

Patient Risk Groups (satisfaction of any one or more of the listed criteria)	Thromboprophylaxis Recommended
Low Risk Group • Day surgery[1] without any VTE risk factors (see below) • No reduction in mobility compared to usual state • Surgical procedure with a total anesthetic and surgical time of less than 60 minutes with no risk factors for VTE (see below)	Early ambulation
Moderate or High Risk Group • Any medical or surgical patient having had or are expected to have significantly reduced mobility for 3 days or more[2-9] • Medical patients with ongoing reduced mobility (compared to their usual state) AND have one or more risk factors for VTE (see below)[2,7-9] • Surgical procedure with a total anesthetic and surgical time of 60 minutes or longer[3-6] • Acute surgical admission with an inflammatory or intra-abdominal condition[3-6] • Surgical patients with one or more risk factors for VTE (see below)[3-5]	LMWH (heparin if GFR less than 10 mL/min)[4-9]
Obstetrical Patients with Increased Risk • Having one or more risk factors for VTE (see below) • Pregnancy-related risk factors: • Ovarian hyperstimulation • Hyperemesis gravidarum • Multiple pregnancy • Preeclampsia • Emergency caesarean section	Consider LMWH (heparin if GFR less than 10 mL/min)[4-9]

RISK FACTORS FOR VTE

- Age 60 years or over
- Active cancer and cancer treatment
- Previous VTE
- Critical Care admission
- Obesity (BMI more than 30 kg/m^2)
- Known thrombophilia
- First degree relative with VTE
- Varicose veins with phlebitis
- Estrogen-containing oral contraception
- Hormone replacement therapy

One or more significant medical conditions:

- Sepsis or severe acute infection
- Heart disease (eg. CHF)
- Respiratory pathology (eg. COPD)
- Inflammatory condition (eg. inflammatory bowel disease)
- Rheumatological disease
- Nephrotic syndrome
- Antiphospholipid syndrome

CONTRAINDICATIONS FOR MECHANICAL PROPHYLAXIS

- Acute stroke with immobility (unable to walk independently to the toilet)
- Peripheral vascular disease with absent pedal pulses
- Severe peripheral neuropathy
- Skin breakdown, ulcers, gangrene, cellulitis, or dermatitis
- Skin grafting within last 3 months
- Allergy to stocking or compression cuff materials
- Unable to size or apply properly due to deformity, recent surgery or trauma

FOOTNOTES AND PRECAUTIONS

1. Day surgery includes patients admitted and discharged within 24 hours for an elective surgical or invasive procedure.
2. In medical patients receiving anticoagulant prophylaxis, the NNT to prevent symptomatic DVT is 212 and non-fatal PE is 300; the NNH for major bleed is 430. There is no evidence for mechanical thromboprophylaxis in medical patients.
3. In surgical patients receiving anticoagulant prophylaxis, the NNT to prevent symptomatic DVT is 20 to 106 and non-fatal PE is 110 to 150; the NNH for major bleed is 70 to 100. There is weak evidence for using mechanical thromboprophylaxis alone and weaker evidence for combining anticoagulant and mechanical prophylaxis to improve efficacy.
4. First post-op dose of LMWH should be given after hemostasis is achieved and as soon as it is safe to do so (usually 12 to 24 hr after surgery). This should take into account the risks of bleeding, thrombosis and timing of subsequent surgery if needed.
5. Prophylaxis for up to 30 days after surgery is recommended in those having hip replacement, hip fracture surgery, abdominal or pelvic surgery for cancer, and those with multiple risk factors.
6. Heparin 5000 units subcut BID should be used if patient is awaiting urgent surgery and is a candidate for neuroaxial blockade. Refer to Peri-operative Pain Service or Anesthesia regarding timing of epidural catheter insertion and removal.
7. Dalteparin and heparin should not be given in patients with heparin induced thrombocytopenia. Consider consulting Hematology regarding the use of alternative agents (e.g. fondaparinux or argatroban).
8. If eGFR is 10 to 30 mL/min and duration of prophylaxis exceeds 10 days, can consider using heparin 5000 units subcut BID. If eGFR less than10 mL/min or dialysis dependent use heparin 5000 units BID.
9. If patient's weight is over 100 kg, consider increasing dose of dalteparin to 5000 units BID or heparin 5000 units TID.

Weight range	dalteparin (if eGFR 10 mL/min or above)	heparin (if eGFR less than 10 mL/min)
40 kg or less	2500 units subcutaneous once daily	2500 units subcutaneous Q12H
41 kg to 100 kg	5000 units subcutaneous once daily	5000 units subcutaneous Q12H
Over 100 kg	5000 units subcutaneous Q12H	5000 units subcutaneous Q8H

Form No. PHC-PH408 (R. Dec 15-11) BACK

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