



Health



SMR060250

Holes punched as per AS2828.1: 2012
BINDING MARGIN - NO WRITING

VENOUS THROMBOEMBOLISM (VTE) RISK ASSESSMENT TOOL

For use in adult patients (>16 years) admitted to a NSW public hospital or health service.

For stroke or neurosurgery patients, seek specialist advice prior to completion

1. Assess VTE Risk and Allocate Patient into Risk Category

<input type="checkbox"/> Higher Risk	VTE Risk Factors
<input type="checkbox"/> Total hip replacement, total knee replacement, or hip fracture surgery <input type="checkbox"/> Abdominal or pelvic surgery for cancer <input type="checkbox"/> Multiple major trauma <input type="checkbox"/> Acute spinal cord injury with paresis	<input type="checkbox"/> Age > 60 years <input type="checkbox"/> Obesity (BMI > 30kg/m ²) <input type="checkbox"/> Moderate to major* surgery <small>*operating time > 45 minutes and/or involves abdomen</small> <input type="checkbox"/> Prior history of VTE <input type="checkbox"/> Known thrombophilia (including inherited disorders) <input type="checkbox"/> Active malignancy or cancer treatment <input type="checkbox"/> Myeloproliferative neoplasms <input type="checkbox"/> Acute myocardial infarction <input type="checkbox"/> Congestive heart failure <input type="checkbox"/> Active or chronic lung disease <input type="checkbox"/> Active infection <input type="checkbox"/> Active rheumatic disease <input type="checkbox"/> Acute inflammatory bowel disease <input type="checkbox"/> Hormonal replacement therapy <input type="checkbox"/> Oestrogen-based contraceptives <input type="checkbox"/> Nephrotic syndrome <input type="checkbox"/> Dehydration <input type="checkbox"/> Varicose veins/chronic venous stasis <input type="checkbox"/> Significantly reduced mobility relative to normal state <input type="checkbox"/> Pregnant or < 6 weeks post-partum (Refer to Obstetrics Consultant / Team prior to commencing pharmacological and/or mechanical prophylaxis) <input type="checkbox"/> Sickle cell disease
<input type="checkbox"/> Moderate Risk	
<input type="checkbox"/> Patients who are not in either the lower- or higher-risk group	

Lower Risk

- Ambulatory patient without **VTE risk factors**
- Non-surgical ambulatory patient with **VTE risk factors** BUT expected length of stay ≤ 2 days.
- Minor surgery* in patient without **VTE risk factors**

*same day surgery or operating time < 30 mins

Consider VTE Risk Factors

2. Identify Contraindications and Other Conditions to Consider with Pharmacological Prophylaxis

Absolute Contraindication	Relative Contraindication <i>(Consider risk vs benefit)</i>	Other Conditions
<input type="checkbox"/> Therapeutic anticoagulation e.g. with warfarin, dabigatran, rivaroxaban, fondaparinux, apixaban <input type="checkbox"/> Active haemorrhage <input type="checkbox"/> Thrombocytopenia (platelets < 50 x 10 ⁹ /L) OR coagulopathy <input type="checkbox"/> Other _____	<input type="checkbox"/> Intracranial haemorrhage within last year <input type="checkbox"/> Craniotomy within 2 weeks <input type="checkbox"/> Intraocular surgery within 2 weeks <input type="checkbox"/> Gastrointestinal OR genitourinary haemorrhage within last month <input type="checkbox"/> Active intracranial lesions/neoplasms <input type="checkbox"/> Hypertensive emergency <input type="checkbox"/> Post-operative bleeding concerns <input type="checkbox"/> Use of antiplatelets (e.g. aspirin, clopidogrel, dipyridamole, prasugrel, ticagrelor) <input type="checkbox"/> Inherited bleeding disorder <input type="checkbox"/> High falls risk <input type="checkbox"/> Severe trauma to head or spinal cord, with haemorrhage <input type="checkbox"/> End stage liver disease (INR > 1.5)	<input type="checkbox"/> Heparin-sensitivity or history of heparin-induced thrombocytopenia (HIT) <small>(Consult Haematologist for alternative treatment e.g. danaparoid use)</small> <input type="checkbox"/> Insertion/removal of epidural catheter or spinal needle (lumbar puncture) (current or planned) <small>(see other considerations overleaf)†</small> <input type="checkbox"/> Creatinine clearance <30mL/min <small>(see recommendations overleaf)</small> <input type="checkbox"/> VTE prophylaxis for total body weight < 50kg or > 120kg or BMI ≥ 35: seek specialist advice regarding these patient groups. Evidence in extremes of body weight is limited and careful clinical consideration is required.

3. Identify Contraindications to Mechanical Prophylaxis

<input type="checkbox"/> Skin ulceration <input type="checkbox"/> Severe peripheral vascular disease <input type="checkbox"/> Severe dermatitis <input type="checkbox"/> Lower leg trauma <input type="checkbox"/> Severe lower leg deformity	<input type="checkbox"/> Recent lower limb DVT (anti-embolic stockings may be used) <input type="checkbox"/> Massive leg oedema/pulmonary oedema due to congestive cardiac failure <input type="checkbox"/> Where correct fitting of stocking cannot be achieved e.g. Morbid Obesity	<input type="checkbox"/> Peripheral neuropathy (Intermittent pneumatic compression can be used) <input type="checkbox"/> Recent skin graft <input type="checkbox"/> Stroke patients (avoid anti-embolic stockings)
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This tool does not preclude the use of clinical judgment, and should be used in conjunction with local policy and procedures where they exist.

4. Prescribe Appropriate Prophylaxis

Higher Risk

Select one pharmacological option[†]

- Enoxaparin 40 mg subcutaneous once daily
- Enoxaparin 20 mg subcutaneous once daily if **Creatinine Clearance < 30 mL/min**
(or use Heparin 5,000 units subcutaneous 8- or 12-hourly)[§]
- Dalteparin 5,000 units subcutaneous once daily
- Alternative agent for Orthopaedic Surgical patients (see below)**
- No pharmacological prophylaxis because of contraindication or not advised

AND

Select one or more mechanical device

- Graduated compression stockings / anti-embolic stockings
- Intermittent pneumatic compression
- Foot impulse device
- No mechanical prophylaxis because of contraindication

[†]VTE prophylaxis dose for **total body weight < 50 kg or > 120 kg or**

BMI ≥ 35: seek specialist advice regarding these patient groups.

Evidence in extremes of body weight is limited and careful clinical consideration is required.

[§] Note: In hip and knee replacement surgery, LMWH is preferred over heparin

PLUS Early mobilisation Patient education

Moderate Risk

Select one pharmacological option[†]

OR

If pharmacological prophylaxis is contraindicated or not advised, select one or more mechanical device:

- Graduated compression stockings / anti-embolic stockings
- Intermittent pneumatic compression
- Foot impulse device
- No mechanical prophylaxis because of contraindication

[†]VTE prophylaxis dose for **total body weight < 50 kg or > 120 kg or**

BMI ≥ 35: seek specialist advice regarding these patient groups.

Evidence in extremes of body weight is limited and careful clinical consideration is required.

PLUS Early mobilisation Patient education

Lower Risk

- Prophylaxis not required

Early mobilisation

Patient education

Tool adapted with permission from the *San Diego Medical Center VTE Risk Assessment and Prophylaxis Orders*.

5. Other Considerations

[#]Prior to insertion or removal of epidural catheter or spinal needle (lumbar puncture), discuss with the anaesthetist. Section 5.9 of the Acute Pain Management: Scientific Evidence guideline produced by the Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine (2015) provides advice regarding timing of dosing.

^{**Orthopaedic Surgery:} Alternative agents may include

- Hip replacement:** dabigatran, rivaroxaban, apixaban or fondaparinux
- Knee replacement:** dabigatran, rivaroxaban, apixaban or fondaparinux
- Hip fracture:** fondaparinux, or aspirin in combination with LMWH

Note: These agents may be contraindicated or require dose adjustment depending on the degree of renal impairment; calculate **Creatinine Clearance** and refer to guidance in references (e.g. CEC NOAC Guidelines) before prescribing. Please check with your local pharmacy department regarding availability of NOACs and Fondaparinux

6. Consider Duration of Therapy

Medical patients:

- Duration of therapy will vary with ongoing risk. Continue prophylaxis until the patient is no longer at increased risk of VTE, for example until acute medical condition is stable and mobility returns to baseline or until hospital discharge

Surgical patients:

- Total hip replacement/hip fracture surgery: continue for 28 to 35 days
- Total knee replacement: continue for up to 14 days
- Lower leg immobilisation due to injury: until mobility returns to baseline
- Major general surgery: continue for up to 1 week or until mobility returns to baseline
- Abdominal or pelvic surgery for cancer: continue for up to 30 days

KEY:

LMWH = low molecular weight heparin e.g. enoxaparin, dalteparin

Date completed: ____ / ____ / ____ Name: _____ Signature: _____ Designation: _____

7. Reassess

Patients should be reassessed when clinical condition changes or regularly (every 7 days as a minimum)

Complete this section if the patient has been reassessed and no changes to risk have been identified (including risk factors). Complete a new form if there are changes to risk

- Date: ____ / ____ / ____ Name: _____ Signature: _____ Designation: _____
- Date: ____ / ____ / ____ Name: _____ Signature: _____ Designation: _____
- Date: ____ / ____ / ____ Name: _____ Signature: _____ Designation: _____



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