NSW GOVERNMENT Health

Facility:

FAMILY NAME	MRN
GIVEN NAME	☐ MALE ☐ FEMALE
D.O.B. _____ / _____ / _____	M.O.
ADDRESS	
LOCATION / WARD	

COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE

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

☐ Higher Risk

- ☐ Total hip replacement, total knee replacement, or hip fracture surgery
- ☐ Abdominal or pelvic surgery for cancer
- ☐ Multiple major trauma
- ☐ Acute spinal cord injury with paresis

☐ Moderate Risk

- ☐ 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** ➡

VTE Risk Factors

- ☐ Age > 60 years
- ☐ Obesity (BMI > 30kg/m^2)
- ☐ Moderate to major* surgery
  *operating time > 45 minutes and/or involves abdomen
- ☐ Prior history of VTE
- ☐ Known thrombophilia (including inherited disorders)
- ☐ Active malignancy or cancer treatment
- ☐ Myeloproliferative neoplasms
- ☐ Acute myocardial infarction
- ☐ Congestive heart failure
- ☐ Active or chronic lung disease
- ☐ Active infection
- ☐ Active rheumatic disease
- ☐ Acute inflammatory bowel disease
- ☐ Hormonal replacement therapy
- ☐ Oestrogen-based contraceptives
- ☐ Nephrotic syndrome
- ☐ Dehydration
- ☐ Varicose veins/chronic venous stasis
- ☐ Significantly reduced mobility relative to normal state
- ☐ Pregnant or < 6 weeks post-partum (Refer to Obstetrics Consultant / Team prior to commencing pharmacological and/or mechanical prophylaxis)
- ☐ Sickle cell disease

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

Absolute Contraindication

- ☐ Therapeutic anticoagulation e.g. with warfarin, dabigatran, rivaroxaban, fondaparinux, apixaban
- ☐ Active haemorrhage
- ☐ Thrombocytopenia (platelets < 50 x 10^9/L) OR coagulopathy
- ☐ Other_____

Relative Contraindication *(Consider risk vs benefit)*

- ☐ Intracranial haemorrhage within last year
- ☐ Craniotomy within 2 weeks
- ☐ Intraocular surgery within 2 weeks
- ☐ Gastrointestinal OR genitourinary haemorrhage within last month
- ☐ Active intracranial lesions/neoplasms
- ☐ Hypertensive emergency
- ☐ Post-operative bleeding concerns
- ☐ Use of antiplatelets (e.g. aspirin, clopidogrel, dipyridamole, prasugrel, ticagrelor)
- ☐ Inherited bleeding disorder
- ☐ High falls risk
- ☐ Severe trauma to head or spinal cord, with haemorrhage
- ☐ End stage liver disease (INR > 1.5)

Other Conditions

- ☐ Heparin-sensitivity or history of heparin-induced thrombocytopenia (HIT)
  (Consult Haematologist for alternative treatment e.g. danaparoid use)
- ☐ Insertion/removal of epidural catheter or spinal needle (lumbar puncture) (current or planned)
  (see other considerations overleaf)#
- ☐ Creatinine clearance <30mL/min
  (see recommendations overleaf)
- ☐ 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

- ☐ Skin ulceration
- ☐ Severe peripheral vascular disease
- ☐ Severe dermatitis
- ☐ Lower leg trauma
- ☐ Severe lower leg deformity
- ☐ Recent lower limb DVT (anti-embolic stockings may be used)
- ☐ Massive leg oedema/pulmonary oedema due to congestive cardiac failure
- ☐ Where correct fitting of stocking cannot be achieved e.g. Morbid Obesity
- ☐ Peripheral neuropathy (Intermittent pneumatic compression can be used)
- ☐ Recent skin graft
- ☐ Stroke patients (avoid anti-embolic stockings)

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SMR060.250

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VENOUS THROMBOEMBOLISM (VTE) RISK ASSESSMENT TOOL

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

† 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

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

PLUS ☐ Early mobilisation ☐ Patient education

☐ Moderate 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)
☐ Dalteparin 5,000 units subcutaneous once daily
☐ Heparin 5,000 units subcutaneous 8- or 12-hourly
☐ No pharmacological prophylaxis because of contraindication or not advised

† 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.

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

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: _____

NO WRITING