**Thromboprophylaxis Guidelines for Medical & Surgical Patients**

**CONSIDER THROMBOPROPHYLAXIS FOR ALL SURGICAL AND MEDICAL PATIENTS BASED ON THEIR INDIVIDUAL RISK**

**Low Risk**
- Minor surgery (< 30mins) no risk factors other than age
- Major surgery (> 30 mins) age <40, no other risk factors
- Minor trauma or medical illness (N.B where expected immobility is greater than 4 days treat as moderate risk)

**Moderate Risk**
- Major surgery, age >40 or other risk factors
- Major trauma or burns
- Major medical illness, cancer or IBD
- Minor surgery (<30mins) with other risk factors apart from age
- Minor surgery, trauma, or illness in patients with a history of VTE or thrombophilia

**High Risk**
- Fracture or major orthopaedic surgery of pelvis, hip or lower limb
- Major pelvic/abdominal surgery for cancer
- Major surgery, trauma or illness in patients with history of VTE or thrombophilia
- Major lower limb amputation or lower limb paralysis (e.g. hemiplegic stroke, paraplegia)

Do not require thromboprophylaxis. Encourage patients to mobilise early. Inpatients having surgery should be offered (class II) graduated compression stockings or mechanical prophylaxis from the time of admission (except to patients with established peripheral arterial disease).

**Patient related risk factors for venous thromboembolism**
- immobility (bed rest >4 days)
- age over 60
- a history of venous thromboembolism
- acquired or inherited thrombophilias
- chemotherapy agents
- combined oral contraceptives (consideration should be given to stopping oral contraceptives before elective surgery)
- hormone replacement therapy
- pregnancy and puerperium (seek specialist advice from obstetrician/haematologist)
- varicose veins in association with phlebitis or a history of venous thromboembolism
- obesity
- prolonged travel before or after surgery (continuous travel of more than 3 hours in the weeks before or after surgery may increase the risk of VTE)

**Disease states that increase the risk of VTE**
- Inflammatory bowel disease
- Nephrotic syndrome
- Cancer
- Heart failure
- Recent MI
- Trauma / surgery
- Paralysis of lower limbs (e.g. Hemiplegic stroke, paraplegia)
- Infection
- Polycythaemia
- Paraproteinaemia
- Paroxysmal Nocturnal Haemoglobinuria

**UNLESS ONE OF THE FOLLOWING APPLY:**

- Recent central haemorrhage or acute cerebral infarct
- Uncontrolled hypertension (BP >210/120 mHg)
- Active peptic ulcer disease or oesophageal varices
- Severe liver disease

**RENAL IMPAIRMENT – GFR < 20ml/min – seek advice from haematology or medicines info ext 82254**

**MONITORING REQUIREMENTS**
- All patients who are to receive heparin of any sort should have a platelet count checked on the day of starting treatment.
- Patients exposed to heparin in the last 100 days should have a baseline platelet count and another check 24 hours after starting heparin.
- Platelet counts should be performed every 2-4 days from day 4 to day 14 No monitoring is required after 14 days even if the treatment course is longer.
- If the platelet count falls by 50% or more and the patient develops new thrombosis or skin allergy at injection sites between Day 4 and 14 consider a diagnosis of Heparin induced thrombocytopenia and discuss with a haematologist.

**PRECAUTIONS WITH EPIDURAL CATHETERS, SPINAL ANAESTHESIA AND LUMBAR PUNCTURE, AND OTHER PROCEDURES**
- Epidural haematomas can develop when a patient undergoes an epidural, spinal anaesthesia or lumbar puncture whilst receiving LMWHs.
- For patients receiving prophylactic dose LMWH:
  - delay at least 12 hours after a prophylactic dose of LMWH
  - the next dose of LMWH should be given no earlier than 4 hours after the procedure

These guidelines have been approved by the East Lancashire Drug & Therapeutics Committee February 2007. They are also available online at [www.elmmb.nhs.uk](http://www.elmmb.nhs.uk). © East Lancashire Hospitals NHS Trust 2007.