Policy Applies To:
All Mercy Hospital Clinical Staff and Credentialed Specialists

Related Standards:
EQuIP standard 2.1.2 risk assessment and 1.1.2 care planning and delivery

Cultural Considerations:
Ensuring that each individual patient and their whānau fully understand the importance of VTE prophylaxis. Any information that is provided to the patient and their whānau is appropriate and accessible to the individual. Asking individual patients about any particular cultural beliefs they or their whānau have that might impact on assessment and treatment.

Rationale:
This policy outlines the VTE risk assessment screening and prevention for surgical patients at Mercy Hospital. Where necessary, prophylactic management strategies will be employed, in keeping with International Best Practice guidelines.

Strategies may include pharmacological or mechanical thromboprophylaxis.

Definitions:
Venous thromboembolism – the blocking of a blood vessel by a blood clot dislodged from its site of origin. It includes both DVT (deep vein thrombosis) and PE (pulmonary embolus) (NICE, 2010).

Pharmacological thromboprophylaxis – the use of anticoagulation. Anticoagulants most frequently prescribed at Mercy Hospital include Enoxaparin, Aspirin, Warfarin or Rivaroxaban (outlined in Surgeons Preferences).

Mechanical thromboprophylaxis – the use of compression stockings or intermittent pneumatic compression devices (ICD) – calf or foot pumps

Implementation:

Education
Staff education includes Face to Face VTE session on Mercy Process during Clinical Orientation day and in service provision through the year

Pre-operative
Patients are screened for VTE Medical risk factors via the Health Questionnaire. This includes questions relating to bleeding or clotting disorders, pregnancy, weight, anticoagulation use, age, length of surgery, airways disease, previous clots in legs or lungs and impaired mobility. Other risk factors to consider include – varicose veins, heart disease, active malignancy, family history, smoking status and oral contraceptive or hormone replacement therapy.

The Caprini score for VTE guides the assessment of a patient's VTE risk-see Appendix 4. All patients should be assessed for risk on admission and reassessed whenever the clinical situation changes significantly e.g. return to Theatre.

The Caprini score for VTE will be recorded on the patient pre-operative/procedure checklist as Low/Moderate/High risk. VTE score if moderate or high will be recorded on Trend care (excluding Manaaki) as an additional action: 'High or moderate VTE risk' and actioned/acknowledged each shift.

- The Theatre Coordinator will asterisk on the theatre list all patients (young children generally excluded) who are expected to be in Theatre for longer than 45 minutes. These patients must, as a minimum, have TEDs put on (The exception being orthopedic patients who receive mechanical VTE prophylaxis per surgical preferences).
- Where appropriate DSU ward nurses measure and fit compression stockings - documented in the care pathway – 'antiembolism stockings applied' section.
- Patient education will include emphasis on early mobilization (as appropriate), good hydration, and frequent position change. Posters and patient information brochures on VTE prophylaxis are located in inpatient waiting areas and patient bathrooms-see Appendix 10

Intra-operative

- The Mercy Hospital Surgical Safety Checklist includes verification of VTE prophylaxis.
- The peri-operative record and the Anaesthetic record document the use of ICD's.

Post-operative Pharmacological thromboprophylaxis

- VTE Surgical Preferences outline the regime to be followed for VTE prophylaxis. (Appendix 1) Where prescribed, enoxaparin is administered daily in the postoperative period (usually 20-40mg). Patient resources include instruction sheet and Clexane 'discharge kit' for self-administration (if patient going home on this). *Discharge kit are located in McAuley and Callaghan wards and they contain information sheet- (see Appendix 9) and sharps bin.
- Where warfarin is prescribed, the 'Anticoagulation – warfarin' protocol should be activated-see Appendix 8. This includes information on INR testing intervals and dosing ranges. Education will be provided whilst an inpatient by the hospital pharmacist and patient given a 'Your anticoagulant treatment' Handbook

Postoperative mechanical thromboprophylaxis

- Calf or foot pumps are located in the Theatre / PACU corridor and applied in Theatre.
- If compression stockings are used, the nurse provides patient education including the correct application of stockings, avoiding the garter effect, awareness of signs and symptoms of DVT or PE (e.g. heat, pain, shortness of breath) and the actions to take, should any of these occur. A patient information handout is provided. (see Appendix 6)

Discharge

- Discharge summary conveys information on discharge medications, anti-embolism stocking usage and duration and mobility instructions-see Appendix 11
- When a patients is discharged home on enoxaparin a discharge kit will be provided*
- When a patient is going home on enoxaparin, an 'Application for subsidy by special authority' (Form SA0975) is required to be applied for online to the MOH or scanned to the MOH by the admitting surgeon.
- A phone call will be made to the Practice Nurse of every patient's GP, where the patient is being discharged home on anticoagulants to advise them when the patient needs to be followed up. A record of the call made to the GP is entered on a spreadsheet held by the Ward Administrator-see Appendix 12.

Evaluation

4monthly meeting with the VTE group to discuss the following:

- Incidents of PE/DVT as reported by the Quality Coordinator
- The preventable measures put in place - provided to the group by the Quality Coordinator
- Annual 'clinical records management' audit shows completion of VTE history / preoperative assessment questions pertaining to VTE risk.
- Review Appendix 1- VTE preferences for currency.
- VTE international day (13 October) and plan for hospital wide VTE education/in-service

Associated Documents

External

- National policy framework : VTE prevention in adult hospitalized in NZ June 2012
- Caprini score for VTE 2005

Internal

- Appendix I - VTE Surgical Preferences for Mechanical Prophylaxis All of these appendices are not attached to this policy do they need to be?
- Appendix 2 – Venous Thromboembolism Process
- Appendix 3 – VTE Discharge Checklist
- Appendix 4 – Caprini score for VTE
- Appendix 5 – Caprini Risk Assessment Form
- Appendix 6 – Anti-embolism stockings – Patient Information Sheet
- Appendix 7 Compression stockings – SharePoint- Clinical Services Work Manual
- Appendix 8 Anticoagulant – warfarin – SharePoint-Clinical Services Work Manual
- Appendix 9 Patient Brochure – 'Clexane injection administration' – McAuley Ward
- Appendix 10 Application for subsidy by Special Authority
- Appendix 11 Patient Discharge information Pamphlet- signs and symptoms
- Appendix 12 Anticoagulant phone calls to GP Practice
- Appendix 13 Patient preoperative/procedure checklist
- Appendix 14 VTE poster
- Patient Handbook – 'Your anticoagulant treatment'