HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER
MATERNITY AND CHILDREN HOSPITAL

Department:	Provision of Care		
Document:	Multidisciplinary Policy and Procedure		
Title:	Prophylaxis Against Thromboembolism in Gynecology and Obstetrics		
Applies To:	All Health Care Professionals in OBS Department		
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1. PURPOSE:

1.1 To provide guidelines for effective thromboprophylaxis which would reduce the incidences of thromboembolic complications in Gynecology and Obstetrics (i.e. during pregnancy and after normal vaginal delivery).

2. DEFINITONS:

2.1 Thromboembolism – formation in a blood vessel of a clot (thrombus) that breaks loose and is carried by the the bloodstream to plug another vessel. The clot may plug a vessel in the lungs (pulmonary embolism), brain (stroke), gastrointestinal tract, kidneys, or leg.

3. POLICY:

3.1 All women should gave their risk of venous thromboembolism (VTE) assessed in early pregnancy or before pregnancy. Women with high risk of VTE should be offered pre-pregnancy counselling with a prospective management plan. This is important because thrombotic risk is particularly high in the first trimester.

3.2 Risk assessment should be repeated if the woman is admitted to the hospital or develop other intercurrent problems.

3.3 The preexisting risk factor include: previous venous thromboembolism, thrombophilia whether congenital or acquired, age over 35 years, obesity (BMI > 30 kg/m2) parity greater than 3, gross varicose veins, paraplegia, sickle cell diseases, inflammatory disorders e.g. inflammatory bowel disease, nephrotic syndrome, etc.

3.4 The new onset risk factors include: surgical procedure in pregnancy or puerperium e.g. ERPC, postpartum sterilization, hyperemesis, dehydration, infection e.g. UTI, immobility (>3 days bed rest) during pregnancy or after delivery, pre eclampsia, excessive blood loss, long haul travel, prolonged labor, etc.

3.5 Plan for prophylactic anticoagulation should be made in liaison with hematologist. This should include type of anticoagulant, dose, frequency, duration of use and the onset of use, i.e. antenatally or only postnatally, monitoring or anticoagulation.

3.6 Once a decision is made to initiate thromboprophylaxis antenatally, this should begin as early as practical.

3.7 Post-partum prophylaxis should start as soon as possible after delivery.

3.8 Regardless of their risk of venous thromboembolism, immobilization of women during pregnancy, labor, and purperium should be minimized and dehydration should avoided.

3.9 As the pregnancy associated prothrombic changes are maximal immediately following delivery, it is desirable not to withhold normal dose of heparin thromboprophylaxis for long time because of labor.

3.10 Women at high risk of hemorrhage i.e. APH, progressive wound hematoma, maybe more conveniently managed by unfractionated heparin due to its shorter half-life and reversibility by protamine sulfate. Expert hematological advice should sought if a woman develops excess blood loss and blood transfusion is a risk factor for venous thromboembolism, so thromboprophylaxis should be begun or re-instituted as soon as the immediate risk of hemorrhage is over.

3.11 Epidural anesthesia can be sited only after discussion with a senior anesthetist to minimize the risk of epidural hematoma, regional technique should not be used except:

3.11.1 4-6 hours after the last dose of unfractionated heparin, 12 hours after the last prophylactic dose of low molecular weight heparin or 24 hours after the last therapeutic dose of low molecular weight heparin.

3.11.2 All forms of heparin should not be given for at least 4 hours after the epidural catheter has been removed or spinal anesthesia inserted.

3.11.3 Epidural cannula should not be removed within 6 hours of the last unfractionated heparin dose or 12 hours after the last low molecular weight heparin dose.

3.12 An effective prophylaxis against thromboembolism should be always be provided to each patient according to the thromboembolic risk she is predisposed to during gynecological surgery, caesarean section or pregnancy.

3.13 Risk Assessment:

3.13.1 Women undergoing gynecological surgery or C/S are categorized according to their risk of developing thromboembolism into three categories which are low risk, moderate risk and high risk.

3.13.2 In Gynecological Surgery(Risk Assessment Profile)

3.13.2.1 Low Risk- are those who undergo:

3.13.2.1.1 Minor Surgery (<30 minutes)

3.13.2.1.2 Major Surgery (> 30 minutes) and <40 years old

3.13.2.1.3 No other risk factors

3.13.2.2 Moderate Risk:

3.13.2.2.1 Minor Surgery < 30 minutes in patients with personal or family history of deep vein thrombosis, pulmonary embolism or thrombophilia.

3.13.2.2.2 Major Surgery (>30 minute)

3.13.2.2.3 Extended Laparoscopic Surgery

3.13.2.2.4 Obesity >80 kg

3.13.2.2.5 Gross Varicose Veins

3.13.2.2.6 Current Infection

3.13.2.2.7 Immobility prior to Surgery (>3 days)

3.13.2.2.8 Major current illness, e.g. heart or lung disease, inflammatory bowel disease, nephrotic syndrome, malignancies (other than gynecological). Heart failure or recent myocardiac infarction

3.13.2.3 High Risk:

3.13.2.3.1 Total of three or more moderate risk factors

3.13.2.3.2 Major pelvic or abdominal surgery for gynecological cancer.

3.13.2.3.3 Major Surgery (>30 minutes) in patients with:

3.13.2.3.3.1 Personal or family history of previous deep vein thrombosis, pulmonary embolism or thrombophilia.

3.13.2.3.3.2 Paralysis or immobilization of the lower limbs.

3.13.3 In caesarean sections(risk assessment profile)

3.13.3.1 Low Risk

3.13.3.1.1 Elective CS- uncomplicated pregnancy and no other risk factors

3.13.3.2 Moderate Risk

3.13.3.2.1 Age >35

3.13.3.2.2 Obesity >80 kg

3.13.3.2.3 Para 3 or more

3.13.3.2.4 Gross varicose veins

3.13.3.2.5 Current infections

3.13.3.2.6 Pre-eclampsia

3.13.3.2.7 Immobility prior to surgery >3 days

3.13.3.2.8 Major current illness, e.g. heart or lung disease, cancer, inflammatory bowel disease, nephrotic syndrome

3.13.3.2.9 Emergency CS in labor

3.13.3.3 High Risk:

3.13.3.3.1 Patient with 3 or more moderate risk factors from above

3.13.3.3.2 Extend pelvic or abdominal surgery e.g. caesarean hysterectomy

3.13.3.3.3 Patient with a personal or family history of deep vein thrombosis, pulmonary embolism, thrombophilia and paralysis of the lower limbs

4. PROCEDURE:

4.1 Patient deemed at low risk requires only early mobilization and attention to hydration.

4.2 Patient assessed as of moderate risk should receive one variety of prophylactic measures available.

4.2.1 Subcutaneous unfractioned heparin at a dose of 5000 IU 12 hourly.

4.2.2 Low molecular weight heparin, e.g enoxaparin 20 mg daily or dalteparin 2500 IU daily.

4.2.3 Mechanical methods i.e graduated elastic compression stockings and intermittent pneumatic calf compression.

4.2.4 Dextran 70 infusions can be given only after delivery of the fetus in C/S and it should be avoided in pregnant women.

4.3 Patient assessed as a high risk should receive heparin in addition to leg stockings

4.3.1 Subcutaneous unfractionated heparin dose of 5000 IU every 8 hours

4.3.2 Subcutaneous low molecular weight heparin, e.g. enoxaparin 40 mg daily once or dalteparin 5000 IU once daily.

4.4 Prophylaxis should continue for 5 days or until the patient is fully mobilized.

4.5 Patient who are having spinal or epidural anesthesia should have heparin only after the block have been sited or at least 4-6 hours before removal of the epidural catheter should be at least 4 hours after the heparin dose.

4.6 Patient with history of venous thrombosis or embolism, whether any form of heparin is needed to be given for more than 5 days, platelet count should be monitored.

4.7 Heparin should be administered well away from the proposed site of abdominal incision.

5. MATERIALS AND EQUIPMENT:

5.1 Admission Request Form

5.2 Obs-Gyne History Sheet

6. RESPONSIBILITIES:

6.1 All health care professionals in OBS Department

7. APPENDICES:

7.1 N/A

8. REFERENCES:

8.1 Reducing The Risk Of Thrombosis And Embolism During Pregnancy And The Puerperium. Green Top Guideline No. 37 November 2009.

8.2 Royal College Of Obstetricians And Gynecologist. Thromboembolic Disease In Pregnancy And The Puerperium: Acute Management. Green Top Guideline No. 28 London: RCOG;2017

8.3 Thromboprophylaxis During Pregnancy, Labor And After Vaginal Delivery. RCOG Guideline No. 37, January 2017

9. APPROVALS:

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