Health and Social Care Committee
HSC(4)-15-12 paper 3
One-day inquiry into venous thrombo-embolism prevention – Evidence from Royal College of Obstetricians and Gynaecologists

Transforming Maternity Services Mini-Collaborative

Venous Thromboembolism (VTE)

Obstetric All Wales DVT Risk Assessment

Part of 1000 Lives Plus, the overall aim of the Transforming Maternity Services Mini-Collaborative is to improve the experience and outcomes for women, babies and their families within Maternity Services. One of the drivers in achieving this aim is to reduce the risk of venous thromboembolism in pregnancy.

Implementation of interventions relating to deep venous thrombosis (DVT) risk assessment should have been straight forward, because the Royal College of Obstetricians and Gynaecologists had published an evidenced based 'green-top guideline' on this subject. Although the guideline summarises the known increased risks of VTE in pregnancy, application of this knowledge to routine pregnancies creates an additional risk of increased morbidity and caesarean section. The level of the evidence has been queried in clinical practice, with the result that there was limited and inconsistent risk assessment taking place in maternity units in Wales.

The Transforming Maternity Services Mini-Collaborative brings together experts, clinicians and managers to effect change at the bedside (from the 'bottom up'). It is endorsed by Welsh Government, all Health Boards in Wales, and the Royal Colleges of Midwives (RCM), and Obstetricians and Gynaecologists (RCOG) in Wales.

The multi-disciplinary and inter-professional nature of the mini-collaborative has seen discussion by maternity staff in Wales with the aim of producing clarity in VTE risk assessment in pregnancy. Feedback from the service demonstrated consensus among clinical staff that the RCOG Green top guideline had several drawbacks, as it may be thought of as 'medicalising' women who would be otherwise regarded as normal. It recommends thromboprophylaxis with low molecular weight heparin (LMWH) for women with a BMI that would result in over 1:4 needing to inject themselves with LMWH during or after pregnancy, for an uncertain benefit, based on trial evidence that is of relatively low quality. There are no data on the clinical or cost-effectiveness of such a strategy.

Following consultation with experts from within Wales and the relevant endorsement committees, consensus has been reached to enable universal VTE risk assessment to be implemented throughout Wales, with two Exemplar DVT Risk Assessment Templates – one relating to the initial 'Booking' visit, which is to be included in the National Hand-Held records and one relating to Antenatal Admission and the puerperium (postnatal period). This has been a significant achievement for the mini-collaborative in a short period of time and is now allowing maternity units to proceed with implementation of the bundles.

All Health boards within Wales are currently implementing these risk assessments following localisation and agreement within their scrutiny committees.

It is recommended that DVT Risk Assessment be carried for pregnant women firstly at their booking appointment (ideally by 12 weeks pregnancy), at each antenatal admission and again following the birth.

Work is also underway to implement a combined antenatal booking and admission risk assessment within gynaecological wards alongside the general DVT risk assessment.

Below are the agreed risk assessments:

Deep Vein Thrombosis Risk Assessment
Booking

All women to be assessed by midwife at first/booking appointment.

Indications for consideration of antenatal thromboprophylaxis

	YES	NO		YES	NO
Previous DVT/PE			**Antithrombin deficiency**		
Systemic lupus erythematosis			**Sickle cell disease**		
Antiphospholipid syndrome			**Myeloproliferative disorder**		
BMI ≥45kg/m^2 **Consider referral to anaesthetist as per local guidance**			**Assessed by** **Date / Signature**		

If one or more Indications (above) present, woman to be referred for obstetric led care and *consideration* of antenatal thromboprophylaxis.

Referred o (if appropriate): **Date:**

Please refer to local guidance re referral timeframes and follow-up.

Obstetrician Review SUMMARY:

Reviewed by: **Date:**

This assessment needs to form part of any further risk assessment following identification of risk factors (and referral) or during any AN hospital admission.

ANTENATAL ADMISSION/POSTNATAL DVT RISK ASSESSMENT

Every woman to be risk assessed at each antenatal admission by locally agreed clinician.
Please refer to Antenatal Booking Risk Assessment (to ensure continuation) prior to completion of this form.
Every woman to be re-assessed postnatally

Addressograph

ANTENATAL ADMISSION

Indications for thromboprophylaxis (TEDS & Clexane) whilst antenatal inpatient.
Indication : One identified indication = Thromboprophylaxis to be considered

Date										
	Yes	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**
Ongoing antenatal thromboprophylaxis										
Hyperemesis										
Dehydration with dry tongue / poor urine output										
Booking BMI ≥35kg/m^2										
Varicose veins with phlebitis										
Immobility >3 days bed rest conditions										
Significant medical co-morbidity (such as heart disease, metabolic, endocrine or respiratory pathologies, acute infectious diseases or inflammatory)										
Sepsis										
Active cancer / cancer treatment										
Thromboprophylaxis required										
Booking Weight		**Weight at risk assessment.**								
Signature										

Prescription of Thromboprophylaxis:

Prescribe according to booking weight unless there has been a significant weight gain during the pregnancy of >12kg

Weight (kg)	**Enoxaparin dose (mg)**	**frequency**
<50	20	od
50-100	40	od
101-120	40	bd
>120	60	bd

Contraindications to Enoxaparin (CLEXANE)

1. Birth or spinal or epidural analgesia / anaesthesia anticipated within next 12 hours	5. DIC
2. Wait 6 hours following performing spinal or epidural analgesia / anaesthesia or epidural catheter removal	6. Past history of heparin-induced thrombocytopenia (discuss with haematologist)
3. Do not remove epidural catheter within 12 hours of Clexane administration. (If on > 40mg discuss with anaesthetist)	7. Patient is already receiving other anticoagulants (e.g. warfarin/heparin)
3. Active bleeding	8. Severe liver disease
4. Platelet count < 75 x 10^9/l	9. Severe renal impairment: If eGFR < 30ml/min or evidence of acute renal failure use subcutaneous unfractionated heparin 5000u bd

Consider below knee antiembolism stockings alone if enoxaparin is contraindicated and thromboprophylaxis needed. Avoid stocking if pedal pulses are impalpable, peripheral vascular disease, severe dermatitis, peripheral neuropathy or recent skin graft.

Postnatal (to be completed within locally agreed timeframe)

Ensure thromboprophylaxis (TEDS & Clexane for 5 days) has been prescribed following birth with one or more factor	**Yes**	**No**	**Women receiving thromboprophylaxis during pregnancy should continue treatment for 6 weeks postpartum**
PPH ≥1500ml			
Red blood cell transfusion or transfusion of coagulation factors			
Caesarean section (elective or emergency)			
Still-birth			
BMI >40kg/m^2			**Signature**
Sepsis			
Complex vaginal delivery (Consider thromboprophylaxis)			
Thromboprophylaxis required			**Date**

Delay commencement until 6 hours following epidural catheter removal or completion of spinal anaesthesia. Encourage early mobilisation, hydration and awareness of symptoms of VTE in all women.
Prescription of postnatal Thromboprophylaxis: As table above. To be calculated using booking weight.