Blackpool Teaching Hospitals NHS
NHS Foundation Trust

Document Type **GUIDELINE**	**Unique Identifier:** OBS/GYNAE/GUID/103
Title: **Venous Thromboembolism - Antenatal, Intrapartum and Postnatal Risk Assessments and Prophylaxis**	**Version Number:** 3
	Status: Ratified
Scope: All staff caring for pregnant and postnatal women	**Classification:** Departmental
Author/Originator and title: Miss E Haslett, Consultant Obstetrician Mrs N Parry, Consultant Midwife Janet Danson-Smith, Midwifery Matron	**Responsibility:** Obstetrics and Gynaecology Directorate

Replaces: Version 2 Venous Thromboembolism – Antenatal, Intrapartum and Postnatal Risk Assessments and Prophylaxis Obs/Gynae/Guid/103	**Description of amendments:** Change use of Tinzaparin to Dalteparin	
Name Of: Divisional/Directorate/Working Group: Obstetrics and Gynaecology Policy Group	**Date of Meeting:** 22/05/2012	**Risk Assessment:** Not Applicable **Financial Implications** Not Applicable
Validated by: Obstetrics and Gynaecology Directorate meeting	**Validation Date:** 18/06/2012	**Which Principles of the NHS Constitution Apply?** Principle 1-4
Ratified by: Clinical Improvement Committee	**Ratified Date:** 07/08/2012	**Issue Date:** 07/08/2012
Review dates may alter if any significant changes are made		**Review Date:** 01/05/2015

Does this document meet the requirements of the Equality Act 2010 in relation to Race, Religion or Belief, Age, Disability, Gender, Sexual Orientation, Gender Identity, Pregnancy & Maternity, Marriage and Civil Partnership, Carers, Human Rights and Social Economic Deprivation discrimination? Initial Assessment

1. PURPOSE

To identify women at risk of venous thromboembolism (VTE) during pregnancy, childbirth and the pueperium and to provide appropriate care and thromboprophlaxis when indicated

2. SCOPE

This guideline applies to all clinical staff caring for pregnant and postnatal women.

3. PROCEDURE

3.1 Appropriate and Timely Risk Assessments to Identify those at Risk of Venous Thromboembolism

3.1.1 Antenatal

The midwife will complete an Antenatal VTE Risk Assessment form (appendix 1):

- At booking on all women
- Any antenatal admission to the maternity unit
- At the onset of labour on all women

3.1.2 Postnatal

The midwife will complete a Postnatal VTE Risk Assessment form (appendix 2):

- Following delivery on all women
- Any postnatal admission in the postnatal period

3.2 Appropriate and Timely Risk Assessments to identify those at Risk of Venous Thromboembolism

3.2.1 Booking:

If the woman has been identified as intermediate or high risk of VTE following the risk assessment at booking (appendix 1) the midwife will refer the woman to the Consultant Obstetrician

3.2.2 Antenatal admission:

If the woman has been identified as intermediate or high risk of VTE following the risk assessment on admission to hospital (appendix 1) the midwife will inform the doctor (excluding FY1) for assessment and management as identified in appendix 1

3.2.3 Onset of labour:

If the woman has been identified as intermediate or high risk of VTE following the risk assessment at the onset of labour (appendix 1) the midwife will inform the obstetrician on call for assessment and management.

3.2.4 Post natal:

If the woman has been identified as intermediate or high risk of VTE following the risk assessment (appendix 2) the midwife will inform the obstetrician on call for assessment and management.

3.2.5 Documentation

All actions taken must be documented in the health record

3.3 The Requirement to Document an Individual Management Plan in the Health Records of Women who require Thromboprophylaxis

An individual management plan will be documented in the health record by the obstetrician or midwife. The doctor will ensure that the anticoagulant is prescribed.

3.4 Thromboprophylaxis During Pregnancy

Refer to Appendix 1 for management and prophylactic doses

3.5 Care During Labour And Delivery Of Women On Thromboprophylaxis

- The woman should be advised that once she is in labour or thinks she is in labour, she should not inject any further Dalteparin, and will be asked to attend the maternity unit. The medical staff will review and prescribe appropriate doses of Dalteparin.
- On admission to hospital the VTE risk assessment will be repeated by the midwife and refer to the obstetrician (excluding FY1) for an ongoing management plan.
- Management of these cases will need to be considered on an individual basis and the Consultant on call must be contacted prior to altering the woman's usual dosage.

3.5.1 Admission for induction of labour

For women on Dalteparin who are admitted for induction of labour the midwife will perform the following and documented in the birth notes:

- Full blood count
- Clotting screen including serum fibrinogen
- Group and save or cross matching of blood if clinically indicated
- Inform Obstetrician that the woman has been admitted
- Give the woman anti-embolism stockings.
- Inform the Anaesthetist when admitted to delivery suite

Admission for elective caesarean section

For women on Dalteparin undergoing a planned Caesarean Section the midwife will perform the following either at pre-op clinic or on admission and documented in the health record:

- Full blood count
- Clotting screen including serum fibrinogen
- Group and save or cross matching of blood if clinically indicated
- Inform Obstetrician that the woman has been admitted
- Give the woman anti-embolism stockings.
- The Anaesthetist will review on the ward

3.5.2 Documentation

All actions taken must be documented in the birth notes by the individual performing the task.

3.6 Thromboprophylaxis during the Postnatal Period

Refer to appendix 2 for management and prophylactic doses.

3.6.1 Documentation

All actions taken must be documented in the postnatal notes by the individual performing the task.

3.7 Self Administration of Subcutaneous Dalteparin

The midwife must teach the woman the following:

- How to self administer the drug at the correct dose.
- That excessive bruising at the injection site must be reported immediately to the midwife or telephone the delivery suite.
- Safe disposal of the syringe and needle

3.8 Organisation's Expectations in Relation to Staff Training

Staff training is undertaken as outlined in the Mandatory Risk Management Training Policy (CORP/POL/354, see section 7)

3.9 Process for Monitoring Compliance

The process for monitoring compliance is outlined in appendix 3 and 4

4. ATTACHMENTS	
Appendix Number	**Title**
1	Antenatal VTE Risk Assessment
2	Postnatal VTE Risk Assessment
3	Process for monitoring compliance – CNST
4	Process for monitoring compliance - NHSLA
5	Equality Impact Assessment Tool

5. ELECTRONIC AND MANUAL RECORDING OF INFORMATION
Electronic Database for Procedural Documents
Held by Policy Co-ordinators/Archive Office

6. LOCATIONS THIS DOCUMENT ISSUED TO		
Copy No	**Location**	**Date Issued**
1	Intranet	07/08/2012
2	Wards and Departments	07/08/2012

7. OTHER RELEVANT/ASSOCIATED DOCUMENTS	
Unique Identifier	**Title and web links from the document library**
Obs/Gynae/Proc/005	Maternal Antenatal and Postnatal Cardiac Arrest Calls (2222) http://fcsharepoint/trustdocuments/Documents/OBS-GYNAE-PROC-005.doc
Corp/Proc/083	Cardiopulmonary Resuscitation http://fcsharepoint/trustdocuments/Documents/CORP-PROC-083.doc
CORP/GUID/076	Prevention of Venous Thromboembolism in medical and surgical patients http://fcsharepoint/trustdocuments/Documents/CORP-GUID-076.doc
CORP/POL/354	Mandatory Risk Management Training Policy http://fcsharepoint/trustdocuments/Documents/CORP-POL-354.docx

8. SUPPORTING REFERENCES/EVIDENCE BASED DOCUMENTS
References In Full
RCOG 2009 Thromboprophylaxis during pregnancy, labour and after vaginal delivery, Guideline 37
Nice 2010 CG 92

9. CONSULTATION WITH STAFF AND PATIENTS	
Name	**Designation**
Pharmacy	
VTE group	

10. DEFINITIONS/GLOSSARY OF TERMS	

11. AUTHOR/DIVISIONAL/DIRECTORATE MANAGER APPROVAL			
Issued By	Miss E Haslett	**Checked By**	Miss E J Davies
Job Title	Consultant Obstetrician	**Job Title**	Clinical Director/Risk Lead
Date	August 2012	**Date**	August 2012

Appendix 1 – Antenatal VTE Risk assessment

Blackpool Teaching Hospitals NHS
NHS Foundation Trust

Antenatal VTE Risk Assessment and Management

Abbreviations used in this document to be listed here with the full description:
VTE -Venous thromboembolism
SPD – Symphysis Pubis Dysfunction
BMI – Body Mass Index
ART – Assisted Reproductive techniques

Write patient details or affix Identification label
Hospital Number:
Name:
Address:

Date of Birth:
NHS Number:

All women must be assessed at Booking and on admission to hospital

- Previous single VTE +
  - Thrombophilia or family history
  - Unprovoked/oestrogen related
- Previous recurrent VTE

→ **HIGH RISK**
- **Requires antenatal prophylaxis with Dalteparin**
- **Anti-embolic stockings**
- **Refer to Consultant**

- Single previous VTE with either no family history or no thrombophilia
- Thrombophilia and no VTE
- Cardiac/pulmonary disease (some types)
- Systemic Lupus Erythematosis
- Malignancy
- Inflammatory conditions
- Nephrotic syndrome
- Sickle cell disease
- Intravenous drug user
- Surgical procedures
- BMI >40

→ **INTERMEDIATE RISK**
- **Consider antenatal prophylaxis with Dalteparin and anti-embolic stockings**
- **Refer to Consultant**

- Age >35 years
- BMI >30
- Para ≥3
- Family history of VTE
- Smoker
- Gross varicose veins
- Severe sepsis
- Immobility (≥3 days) eg. Paraplegia, SPD, Long distance travel (>4 hours)
- Pre-eclampsia
- Hyperemesis Gravidarum/Dehydration
- Ovarian hyperstimulation syndrome
- Multiple pregnancy or ART

→ 3 or more risk factors
2 or more if admitted

→ <3 risk factors

→ **LOWER RISK**
Mobilisation and avoidance of dehydration

All High Risk women will require anti-embolic stockings and Dalteparin according to body weight, for the duration of the pregnancy.
Those at Intermediate Risk, and those with 3 or more Lower Risk factors, (2 or more if admitted), to be considered for anti-embolic stockings and Dalteparin.

Dosage of Dalteparin according to body weight at booking:
Body weight <50kg - 2500 units daily
Body weight 50 – 90kg - 5000 units daily
Body weight 91 - 130kg - 7500 units daily
Body weight 131 – 170kg – 10,000 units daily
Body weight >170 kg – 75 units per kilo per day

Please CIRCLE level of Risk following assessment: HIGH INTERMEDIATE LOW
Signed: Print name: Designation: Date:

Appendix 2 Postnatal VTE Risk assessment

Blackpool Teaching Hospitals NHS
NHS Foundation Trust

Postnatal VTE Risk Assessment and Management Following Delivery

Abbreviations used in this document to be listed here with the full description:
VTE - Venous thromboembolism
SPD - Symphysis Pubis Dysfunction
PPH - Postpartum Haemorrhage
BMI - Body Mass Index
LMWH - Low Molecular Weight Heparin

Write patient details or affix Identification label
Hospital Number:
Name:
Address:

Date of Birth:
NHS Number:

All women MUST be assessed following delivery and on admission to hospital in the postnatal period

- Any previous VTE
- Anyone requiring LMWH antenatally

→ **HIGH RISK**
Requires at least 6 weeks postnatal prophylaxis with Dalteparin + anti embolic stockings till mobile

- Asymptomatic thrombophilia, inherited or acquired
- Prolonged hospital admission
- Cardiac/pulmonary disease (some types)
- Systemic Lupus Erythematosis
- Malignancy
- Inflammatory conditions
- Nephrotic syndrome
- Sickle cell disease
- Intravenous drug user
- Any surgical procedures in the puerperium
- BMI >40
- Caesarean section

→ **INTERMEDIATE RISK**
Requires at least 7 days postnatal prophylaxis with Dalteparin + anti embolic stockings till mobile

Please note: If persisting or >3 risk factors, consider extending prophylaxis with Dalteparin to 6 weeks

- Age >35 years
- BMI >30
- Para ≥3
- Smoker
- Gross varicose veins
- Severe sepsis
- Immobility (≥3 days) eg. Paraplegia, SPD, Long distance travel (>4 hours)
- Pre-eclampsia
- Mid cavity or rotational operative delivery
- Prolonged labour >24 hours
- PPH >1 litre or blood transfusion

→ 2 or more risk factors → **INTERMEDIATE RISK** (as above)

→ <2 risk factors → **LOWER RISK**
Mobilisation and avoidance of dehydration

Dosage of Dalteparin according to body weight at booking:
Body weight <50kg - 2500 units daily
Body weight 50 – 90kg - 5000 units daily
Body weight 91 - 130kg - 7500 units daily
Body weight 131 – 170kg – 10,000 units daily
Body weight >170 kg – 75 units per kilo per day

Please note:
- **If the woman has had an epidural, the first dose of Dalteparin must not be given until 4 hours after removal of the epidural catheter**
- **If postpartum haemorrhage, give the first dose by 4 hours after delivery**

Please CIRCLE level of Risk following assessment: HIGH INTERMEDIATE LOW

Signed: Print name: Designation: Date:

Appendix 3 – Process for Monitoring Compliance – VTE Prophylaxis

Minimum requirement to be monitored		Process for monitoring e.g. audit	Responsible individual/ group/ committee	Frequency of monitoring	Responsible individual/ group/ committee for review of results	Responsible individual/ group/ committee for development of action plan	Responsible individual/group/ committee for monitoring of action plan and Implementation
a)	Appropriate and timely risk assessments to identify those at risk of VTE	Audit of 1% of all health records of woman who have delivered following thromboprophylaxis during the antenatal and or postnatal period	Labour Ward Lead consultant obstetrician	Annual	Women and Children's Governance Group	Women and Children's Governance Group	Women and Children's Governance Group
b)	The action to be taken in response to the risk assessments once the risk of VTE has been identified	Audit of 1% of all health records of woman who have delivered following thromboprophylaxis during the antenatal and or postnatal period	Labour Ward Lead consultant obstetrician	Annual	Women and Children's Governance Group	Women and Children's Governance Group	Women and Children's Governance Group
c)	The requirement to document an individual management plan in the health records of women who require thromboprophylaxis	Audit of 1% of all health records of woman who have delivered following thromboprophylaxis during the antenatal and or postnatal period	Labour Ward Lead consultant obstetrician	Annual	Women and Children's Governance Group	Women and Children's Governance Group	Women and Children's Governance Group
d)	Thromboprophylaxis During pregnancy	Audit of 1% of all health records of woman who have delivered following thromboprophylaxis during the antenatal and or postnatal period	Labour Ward Lead consultant obstetrician	Annual	Women and Children's Governance Group	Women and Children's Governance Group	Women and Children's Governance Group
e)	The care during labour and delivery of women on Thromboprophylaxis	Audit of 1% of all health records of woman who have delivered following thromboprophylaxis during the antenatal and or postnatal period	Labour Ward Lead consultant obstetrician	Annual	Women and Children's Governance Group	Women and Children's Governance Group	Women and Children's Governance Group
f)	Thromboprophylaxis during the postnatal period	Audit of 1% of all health records of woman who have delivered following thromboprophylaxis during the antenatal and or postnatal period	Labour Ward Lead consultant obstetrician	Annual	Women and Children's Governance Group	Women and Children's Governance Group	Women and Children's Governance Group

Appendix 4 – Process for monitoring compliance - NHSLA

Minimum requirement to be monitored		Process for monitoring e.g. audit	Responsible individual/ group/ committee	Frequency of monitoring	Responsible individual/ group/ committee for review of results	Responsible individual/ group/ committee for development of action plan	Responsible individual/ group/ committee for monitoring of action plan and Implementation
a)	Process/risk assessment for identifying women at risk of venous thromboembolism	Audit	Labour Ward Lead Consultant Obstetrician	Annual	Labour Ward Lead Consultant Obstetrician Clinical Governance Committee	Labour Ward Lead Consultant Obstetrician Clinical Governance Committee	Labour Ward Lead Consultant Obstetrician Clinical Governance Committee
b)	Prophylactic treatment regime for high risk women	Audit	Labour Ward Lead Consultant Obstetrician	Annual	Labour Ward Lead Consultant Obstetrician Clinical Governance Committee	Labour Ward Lead Consultant Obstetrician Clinical Governance Committee	Labour Ward Lead Consultant Obstetrician Clinical Governance Committee
c)	Procedure to be followed if venous thromboembolism is suspected	Audit	Labour Ward Lead Consultant Obstetrician	Annual	Labour Ward Lead Consultant Obstetrician Clinical Governance Committee	Labour Ward Lead Consultant Obstetrician Clinical Governance Committee	Labour Ward Lead Consultant Obstetrician Clinical Governance Committee
d)	Management of the woman once a positive diagnosis has been made	Audit	Labour Ward Lead Consultant Obstetrician	Annual	Labour Ward Lead Consultant Obstetrician Clinical Governance Committee	Labour Ward Lead Consultant Obstetrician Clinical Governance Committee	Labour Ward Lead Consultant Obstetrician Clinical Governance Committee
e)	Organisations expectations in relation to staff training as identified in the Training Needs Analysis	Audit	Labour Ward Lead Consultant Obstetrician	Annual	Labour Ward Lead Consultant Obstetrician Clinical Governance Committee	Labour Ward Lead Consultant Obstetrician Clinical Governance Committee	Labour Ward Lead Consultant Obstetrician Clinical Governance Committee

Appendix 5: Equality Impact Assessment Tool

Blackpool Teaching Hospitals NHS
NHS Foundation Trust

To be completed and attached to any procedural document when submitted to the appropriate committee for consideration and approval.

Would the relevant Equality groups be affected by the document? (If Yes please explain why you believe this to be discriminatory in Comment box)Venous Thromboembolism – Antenatal Intrapartum and Postnatal Risk Assessments and Prophylaxis Obs/Gynae/Guid/103

	Questionnaire	Yes/No Double click and select answer	Comments
1	Grounds of race, ethnicity, colour, nationality or national origins e.g. people of different ethnic backgrounds including minorities: gypsy travellers and refugees / asylum seekers.	No	
2	Grounds of Gender including Transsexual, Transgender people	No	
3	Grounds of Religion or belief e.g. religious /faith or other groups with recognised belief systems	No	
4	Grounds of Sexual orientation including lesbian, gay and bisexual people	No	
5	Grounds of Age older people, children and young people	No	
6	Grounds of Disability: Disabled people, groups of physical or sensory impairment or mental disability	No	
7	Is there any evidence that some groups are affected differently?	No	
8	If you have identified potential discrimination, are any exceptions valid, legal and/or justifiable?	No	
9	Is the impact of the document/guidance likely to be having an adverse/negative affect on the person (s)?	No	
10	If so can the negative impact be avoided?	N/A	

11	What alternatives are there to avoid the adverse/negative impact?	**Please Comment**	
12	Can we reduce the adverse/negative impact by taking different action?	N/A	**Please Identify How**

13 Q1 (a) **Is the document directly discriminatory?** No (under any discrimination legislation) • Racial Discrimination • Age Discrimination • Disability Discrimination • Gender Equality • Sexual Discrimination	**Q2 (b) (i)** Is the document indirectly discriminatory? No **b (ii)** If you said yes , is this justifiable in meeting a legitimate aim N/A	**Q3 (c)** Is the document intended to increase equality of opportunity by positive action or action to redress disadvantage N/A Please give details To safeguard vulnerable adults

14 If you have answered **no** to all the above questions **1-13** and the document does not discriminate any Equality Groups please go to **section 15**

If you answered **yes** to Q1 (a) and **no** to Q3 (b) this is unlawful discrimination.

If you answered **yes** to Q2 (b) (i) **no** to Q2 (b) (ii) and **no** to Q3 (c), this is unlawful discrimination

If the content of the document is not directly or indirectly discriminatory, does it still have an adverse impact?

No

Please give details

If the content document is unlawfully discriminatory, you must decide how to ensure the organisation acts lawfully and amend the document accordingly to avoid or reduce this impact

15 Name of the Author completing the Equality Impact Assessment Tool.

Name Janet Danson-Smith

Signature

Designation Midwifery Matron

Date May 2012