University Hospitals of Morecambe Bay NHS Foundation Trust

Obesity Guideline

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CONTENTS

OBESITY GUIDELINE

DOCUMENT PURPOSE :
To describe an approved way of working that should be followed, unless the responsible professional can justify working differently, based on the needs of the situation.

1.0 POLICY STATEMENT

The complications of obesity during pregnancy have far reaching implications for both mother and newborn. This Guideline will ensure the maternity service strives to manage risks associated with obesity and pregnancy to achieve the best possible outcome for mother and baby.

1.1 Background

This guideline includes the recommendations from National Institute for Health and Clinical Excellence (NICE) Antenatal care: Routine care in a safe setting (2011), NICE Diabetes in pregnancy: management of diabetes and its complications from pre-conception to the postnatal period (2008) and NICE Dietary interventions and physical activity interventions for weight management before, during and after pregnancy 2010. The guideline reflects the National Litigation Authority Clinical Negligence Scheme for Trusts Maternity Clinical Risk Management Standards 2011/2012 Standard 3 Criterion10.

1.2 Organisational Responsibilities

Chief Executive
Has ultimate responsibility for the implementation and monitoring of the policies in use in the Trust. This responsibility may be delegated to an appropriate colleague.

Clinical Leads/Head of Midwifery
Where Clinical Leads/Head of Midwifery are asked to ratify this guideline they are responsible for the review of the guideline and the final ratification prior to the guideline actually being implemented. This ratification process will take place following the consultation and approval process.

Trust Committees
As a group are responsible for the consultation and approval process required during the development of guidelines for the Trust. The committees are responsible for the review of guidelines submitted to them to ensure that guidelines are appropriate, workable and follow the principles of best practice.

All Staff
It is incumbent on relevant staff, when asked, to provide comments and feedback on the content and practicality of guidelines that are being developed and reviewed. It is the duty of all staff when asked, to provide assistance during the development and review stages of guideline formulation.

Stakeholders
Are those people with an interest in a guideline who contribute, comment and agree to the content of the guideline. They include specific committees, groups or forums, individual colleagues, whole departments, service users and their families

2.0 PLANNING AND IMPLEMENTATION

The objectives of this guideline are aimed to ensure best practice in relation to the care of women with a raised body mass index.
Newly ratified guidelines are circulated to relevant staff who have the responsibility to ensure awareness of the contents of the guideline and to provide written documentation to that effect. This evidence will be held by the Maternity Service Risk Manager.
Relevant staff have the responsibility to inform their Line Manager of any training needs which may affect their ability to follow this guideline.

2.1 Measuring Performance and Audit

The Trust will measure performance of this guideline against the NHSLA criteria stated under the heading Audit/Monitoring Compliance below.

2.2 Review

This guideline will be reviewed every three years or sooner following findings from audit, changes to national guidance, or in response to clinical practice. The responsibility for the review of guidelines lies with the Maternity Guideline Group who report to the Maternity Risk Management Group.

3.0 RATIONALE

The Increasing prevalence of obesity in the United Kingdom has been widely publicised and the risks of maternal death among pregnant obese women has been highlighted in Saving Mothers' Lives (CEMACH 2007). The complications of obesity during pregnancy have far reaching implications for both mother and newborn. This Guideline will ensure the maternity service strives to manage risks associated with obesity and pregnancy.

3.1 Background

The prevalence of obesity in the general population in England has increased markedly since the early 1990s. The prevalence of obesity in pregnancy has also been seen to increase, rising from 9-10% in the early 1990s to 16-19% in the 2000s.

- Obesity in pregnancy is associated with an increased risk of a number of serious adverse outcomes, including miscarriage, fetal congenital anomaly, thromboembolism, gestational diabetes, pre-eclampsia, dysfunctional labour, postpartum haemorrhage, wound infections, stillbirth and neonatal death

- There is a higher caesarean section rate, and lower breastfeeding rate in this group compared to women with a healthy BMI.

- There is evidence to suggest that obesity may be a high risk factor for maternal death: the Confidential Enquiry into Maternal and Child Health's report on maternal deaths in 2003-2005 triennium showed that 28% of mothers who died were obese.

- Maternal obesity and weight retention after birth are related to socioeconomic deprivation

3.2 Definition

The standard measure for determining obesity is the classification adopted by the World Health Organisation (WHO 1997) see overleaf.

Classification	**BMI Kg/M2**
Normal range	18.5 – 24.9
Overweight	25 – 29.9
Obese I	30 – 34.9
Obese II	35 – 39.9
Obese III Morbidly Obese	≥ 40

4.0 CALCULATION OF THE BODY MASS INDEX (BMI) AND DOCUMENTATION OF THE BMI IN THE HEALTH RECORDS AND ON THE ELECTRONIC PATIENT INFORMATION SYSTEM

All pregnant women should have their weight and height measured using appropriate equipment, and their body mass index calculated at the antenatal booking visit.

- The maternity Evolution system will automatically calculate the BMI when the woman's height and weight are entered following the booking appointment.

- Should the Evolution system not be available the formula to calculate a woman's BMI is the weight in kilograms divided by the height of the woman in meters divide that answer by the height in meters again = the woman's BMI Record the woman's BMI in the maternal records.

- BMI should be recorded in the maternal records, electronic patient records and on the BMI proforma commenced at booking (Appendix 1)

4.1 Advice on healthy eating and physical exercise

- Do not weigh women repeatedly during pregnancy as a matter of routine. Only weigh again if clinical management can be influenced or if nutrition is a concern

- There are no evidence based recommended weight gain ranges during pregnancy. The amount of weight a woman may gain in pregnancy can vary due to increased body fat- the unborn child, placenta, amniotic fluid and increased blood and fluid volume

- At the earliest opportunity the health care professional should discuss the woman's eating habits and how physically active she is. It is important to find out if she has any concerns about her diet and the amount of physical activity

- The woman should be advised that a healthy diet and being physically active will benefit both herself and her unborn child during pregnancy and will also help her achieve a healthy weight after giving birth

- Dieting is not recommended during pregnancy as it may harm the health of the unborn child

- Advice on how to use Healthy Start Vouchers to increase the fruit and vegetable intake of those eligible for the healthy Start scheme (Women under 18 years and those who are receiving benefit payment)

- Dispel any myths about how much to eat during pregnancy as energy needs do not change in the first 6 months of pregnancy and increase only slightly in the last 3 months (only by 200 calories per day)

- Advice that moderate intensity physical activity will not harm her or her unborn child. At least 30 minutes per day of moderate intensity activity is recommended

- Give specific and practical advice about being physically active during pregnancy
  This will include;-
  Recreational exercise such as swimming
  Aim of recreational exercise to stay fit rather than reach peak fitness
  If women have not exercised begin with 15 minutes of continuous exercise three times per week increasing gradually to 30 minutes. If women exercised regularly before pregnancy, they should be able to continue with no adverse effects

- Explain to women who would find the above level of physical activity difficult that it is important not to be sedentary as far as possible.

5.0 PREGNANT WOMEN WITH A BMI ≥ 30

- All pregnant women with a booking BMI ≥ 30 should be provided with written accurate and accessible information about the risks associated with obesity in pregnancy and how they may be minimised.

- All women with a BMI >30 must have a documented antenatal consultation with an appropriately trained professional to discuss possible intra-partum complications

- All discussions should be documented in the maternal records.

- All women should have their blood pressure (BP) measured at the booking appointment and all subsequent antenatal consultations, using the appropriate sized BP cuff.

- The cuff size should be documented in the maternal records.

- Dietetic advice should be given early in the pregnancy by a midwife. Should specialist dietetic advice be required the midwife should refer the woman to the dietetic service.

- All pregnant women with a booking BMI ≥ 30 should be screened for gestational diabetes (NICE Clinical Guideline No 63. Diabetes in Pregnancy, (July, 2008).

- A 2 hour, 75g oral glucose tolerance tests (OGTT) is recommended between 26-28 weeks gestation. This can be arranged at the Day Assessment Unit or in the community setting via Day Assessment Unit or Antenatal Clinic.

- Women with a booking BMI ≥ 30 should have an antenatal consultation at a consultant antenatal clinic ideallyoffered within two weeks of booking to discuss

possible complications associated with high BMI. These discussions should be documented in the maternal records.

- In the absence of any additional risk factors, following the above consultation, women may continue midwifery led care at consultant discretion.

- See below for guidance on labour and delivery and postnatal care

5.1 Pregnant women with a BMI of ≥ 35

In addition to the above all pregnant women with a BMI ≥35 should have the following:-

- Women with a BMI ≥ 35 should be referred to a Consultant Obstetrician following booking for consultation and pregnancy care planning and advised to deliver in an Obstetric led unit. These discussions should be documented in the maternal records.

- Women with a booking BMI ≥ 35 have an increased risk of pre-eclampsia. Those women who have additional risk factors for pre-eclampsia should have a referral early in pregnancy to the Consultant team.

- Additional risk factors may include:-
  Pre- eclampsia in previous pregnancy
  ≥ 10 years since last baby
  ≥ 40 years of age
  Family history of pre-eclampsia
  Booking diastolic BP ≥ 80 mmHg
  Booking proteinuria ≥ 1+ on more than one occasion or ≥ 0.3g/24hours
  Multiple pregnancy

- Underlying medical conditions e.g. Presence of Antiphospholipid antibodies, Renal Disease and/or Diabetes Mellitus. Refer to the University Hospitals of Morecambe Bay Antenatal Care Pathway Booking Procedure and Criteria for Referral for Consultant Obstetrician Opinion.

- Women with a booking BMI ≥ 35 with no additional risk factors can have community monitoring for pre-eclampsia at a minimum of 3 weekly intervals between 24 -32 weeks gestation, and 2 weekly intervals from 32 weeks to delivery.

- See below for guidance on labour and delivery and postnatal care

5.2 Pregnant women with a BMI ≥ 40

In addition to the above all pregnant women with a raised BMI ≥ 40 must have the following:-

- Women with a booking BMI ≥ 40, or body weight ≥ 120 kg should have a documented assessment in the third trimester of pregnancy by an appropriately qualified professional to determine manual handling requirements for childbirth.

- Manual handling requirements include consideration of safe working loads of beds and theatre tables, the provision of appropriate lateral transfer equipment, hoists and appropriately sized thromboembolic deterrent stockings (TEDS).

- There is also an increased risk of pressure sores when a woman may be relatively immobile and regular inspection of potential pressure areas is important.

- All women with a booking BMI ≥ 40 should have an individual documented assessment in the third trimester of pregnancy by an appropriately qualified professional to consider tissue viability issues. Contact the University Hospitals of Morecambe Bay NHS Foundation Trust Tissue Viability Nurse as required

- See below for guidance on labour and delivery.

6.0 ANAESTHETIC ASSESSMENT

- Women with a BMI ≥ 40 have the highest risk of anaesthetic complications therefore women with a booking BMI ≥ 35 plus additional risk factors, or BMI ≥ 40 should have an antenatal consultation with an obstetric anaesthetist so that potential difficulties with venous access, regional or general anaesthesia can be identified.

- An anaesthetic management plan for labour and delivery should be discussed and documented in the maternal records.

6.1 Facilities and suitable equipment in all care settings

- The maternity unit will assess the availability of suitable equipment in all care settings for women with a BMI ≥ 30. This will occur on an annual basis.

- The equipment list in the hospital and community is detailed in Appendix 2

7.0 WOMEN WHO MAY REQUIRE SPECIALISED EQUIPMENT

- For women with a raised BMI who may require specialised equipment ante-natally the booking midwife should discuss with the clinic coordinator in order to make appropriate arrangements. Re-measurement of maternal weight during the third trimester will allow appropriate plans to be made for equipment and personnel required during labour and delivery.

- The health care professional must document an individual management in the maternal records of women who require any specialised equipment.

- Operating theatre staff should be alerted to any woman whose weight exceeds 120kg and who is due to have an operative intervention in theatre. This will ensure the availability of specialised equipment

7.1 Thromboprophylaxis

- All women should be assessed at their first antenatal visit and throughout pregnancy for the risk of thromboembolism.

- The risk assessment form for venous thromboembolism (VTE) in the maternal records should be completed at each assessment. Identified risk factors should be scored in the appropriate box and the total score recorded (appendix 3).

- The management and required thromboprophylaxis will depend upon the total score at assessment (appendix 3, box 2 and 3).

- Early referral to the Consultant Obstetrician should be made to enable a plan of care to be implemented.

- Women with a booking BMI ≥30 or a booking weight ≥ 90kgs who also has 1 or more additional risk factor for thromboembolism should be considered for prophylactic low molecular weight heparin (LMWH) in the antenatal period (appendix 3, box 2). *Refer to the University Hospitals of Morecambe Bay NHS Foundation Trust guideline Venous Thromboprophylaxis in Pregnancy and Puerperium.*

- Women with a booking BMI ≥ 40 with or without additional risk factors should be considered for prophylactic low molecular weight heparin (LMWH) in the antenatal period (appendix 3, box 2). *Refer to the University Hospitals of Morecambe Bay NHS Foundation Trust guideline Venous Thromboprophylaxis in Pregnancy and Puerperium.*

- All women receiving LMWH in the antenatal period should continue prophylactic doses of LMWH until six weeks post partum.

- Women with a BMI ≥ 30 should be encouraged to mobilise as early as practicable following childbirth to reduce the risk of thromboembolism.

7.2 Planning labour and delivery

- Women with a BMI of ≥30 should be referred to the Consultant team to discuss possible intrapartum complications, the discussion must be documented in the health records.

- Women with a BMI ≥ 35 should be advised to deliver in an obstetric led unit.

- If the BMI ≥ 40 an obstetric anaesthetic management plan should be available in the health records.

- Pregnant obese women are at significantly higher risk of shoulder dystocia and postpartum haemorrhage and immediate obstetric intervention is vital in these situations.

- Babies born to obese mothers are 1.5 times more likely to be admitted to a neonatal unit than babies born to mothers with a healthy weight.

- Women with a BMI ≥ 30 but ≤ 35 with no additional risk factors may plan for home birth/midwife led unit following a Consultant Obstetrician review. An individualised plan of care must be documented in the maternal records by the Consultant Obstetrician

- In the absence of other obstetric or medical interventions obesity alone is not an indication for induction of labour and a normal birth should be encouraged. Induction of labour should therefore be reserved for situations where there is a specific obstetric or medical intervention with recourse to senior obstetric and anaesthetic help in the event of a caesarean section.

8.0 CARE IN LABOUR

- The on call middle grade anaesthetist should be informed when a woman with a BMI ≥ 40 is admitted to the labour ward if delivery or operative intervention is anticipated.

- Early assessment will allow the anaesthetist to review documentation of the antenatal anaesthetic consultation and identify potential difficulties with regional and/or general anaesthesia.

- An early epidural may be advisable depending on the clinical situation.

- Operating theatre staff should be alerted regarding any woman whose weight exceeds 120kg and who is due to have an operative intervention in theatre

- A Speciality Obstetrician/Consultant Obstetrician should be available for advice regarding the woman in labour and delivery with a BMI ≥ 40.

- Women with a BMI ≥ 40 who are in established labour should receive one to one care in labour

- Extra vigilance with regard to care of pressure areas is required.

- A fetal scalp electrode maybe required to monitor the fetal heart

- Women with a BMI ≥ 40 should have venous access established in labour in case of resuscitation or intravenous medication

- All women with a BMI ≥ 30 should be recommended to have active management of the third stage of labour due to the increased risk of postpartum haemorrhage associated with obesity.

- Women with a ≥ 30 having a caesarean section have an increased risk of wound infection and should receive prophylactic antibiotics at the time of surgery

8.1 Postnatal care and follow up

- Obesity is associated with low breastfeeding initiation and maintenance rates. All women should receive appropriate advice and support during the antenatal and postnatal period regarding the benefits, initiation and maintenance of breastfeeding.

- The woman should be advised that a healthy diet and regular moderate intensity physical exercise and gradual weight loss will not adversely affect the ability to breast feed or the quantity and quality of breast milk

- If pregnancy and delivery are uncomplicated, a mild exercise programme consisting of walking, pelvic floor exercises and stretching may begin immediately. Women should not resume high-impact activity too soon after giving birth.

- After complicated deliveries, or lower segment caesarean sections, a health care professional should be consulted before resuming pre-pregnancy levels of physical activity, usually after the first check up at 6-8 weeks after giving birth.

- Women with a booking BMI ≥ 35 should receive nutritional advice following childbirth from an appropriately trained professional, with a view to weight reduction

- All women with a booking BMI ≥ 30 who have been diagnosed with gestational diabetes should have a fasting blood sugar undertaken at the 6 week postnatal appointment. Annual fasting glucose is required thereafter. OGTT may be recommended at the Diabetologist's discretion where Type 1 diabetes is suspected. This can be arranged at the Day Assessment Unit.

- The woman should be advised that at the 6 week postnatal check she will have the opportunity to discuss her weight. The woman should be advised that if she does not wish to discuss her weight at this appointment they can do so at any time in the future.

- All advice in the postnatal period should be clear, tailored, consistent, up to date and timely about how to lose weight safely after childbirth.

9.0 RECORD KEEPING

It is the responsibility of all medical & midwifery staff to ensure that the documentation, including management plans, are completed in the relevant sections of the health records (NMC 2009)

It is the responsibility of all health care professionals to document care in the appropriate sections of the records, usually in the main body of the records

High standards of record keeping are essential to promote effective communication between women and the multidisciplinary team and to comply with CNST standards.

These guidelines cannot anticipate all possible circumstances and exist only to provide general guidance on clinical management to clinicians.

This guideline has been assessed using the Equality and Human Rights Policy Screening Tool.

Frequency

This Guideline will be audited each month in relation to the current CNST minimum requirement for the applicable level of assessment. The annual amount of health records audited will equate to a minimum of 1% or 10 sets whichever is the greater of all women who have had a vaginal birth after caesarean section. This audit will occur as per the Trust audit programme.

Following the collection period an annual audit report will be produced which will be presented at the Maternity Risk Steering Group.

Audit tool

	Yes	No	Not applicable
calculation and documentation of body mass index (BMI) in the health records			
calculation and documentation of the BMI in the electronic patient information system			
requirement that all women with a BMI >30 should be advised to book for maternity team based care			
requirement that all women with a BMI >35 should be advised to deliver in an obstetric led unit			
requirement that all women with a BMI >40 have an antenatal consultation with an obstetric anaesthetist			
requirement that a documented obstetric anaesthetic management plan for labour and delivery should be discussed with all women with a BMI >40			
requirement that all women with a BMI >30 have a documented antenatal consultation with an appropriately trained professional to discuss possible intrapartum complications			
requirement to assess the availability of suitable equipment in all care settings for women with a high BMI			
requirement that all women with a BMI >40 have an individual documented assessment in the third trimester of pregnancy by an appropriately trained professional to determine manual handling requirements for childbirth and consider tissue viability issues			

Monitoring of the policy:

Requirement	Method	Frequency	Lead	Monitoring Group	Action plan lead	Committee/ group overseeing Action Plan
Adherence to guideline	Audit	Minimum triennial	Audit lead	Maternity audit group	Chair of the Guideline Group	Guideline development group

APPENDIX 1

CARE PATHWAY FOR MANAGEMENT OF WOMEN WITH BMI ≥ 30

This pathway is to be used in conjunction with antenatal; intrapartum and postnatal care guidelines

1. BOOKING VISIT

- Measure weight and height, calculate and document BMI
- Use appropriate size BP cuff
- Continue 5mg Folic Acid daily up to 12 completed weeks
- Recommend 10mcg Vitamin D daily throughout pregnancy and breastfeeding
- Assess thrombo embolism risk(see appendix 1)
- Thrombo prophylaxis if indicated (see appendix 1)
- Book for glucose tolerance test at 28 weeks
- Discuss risks of obesity and pregnancy and how to minimise them, formulate a care plan
- Refer for Consultant opinion re delivery plan
- Offer referral to dietician

Additional care for women with BMI ≥ 35

- Advise delivery within a consultant unit
- Consider additional risk factors for pre eclampsia (see appendix 2)

2. PREGNANCY CARE

- Assess thromboembolism risk
- Thrombo prophylaxis if indicated
- Use appropriate size BP cuff

Additional care for women with BMI ≥ 35

- Additional monitoring for pre eclampsia at 25, 28, 31 and 34 weeks then fortnightly until delivery

Additional care for women with BMI ≥ 40

- Complete a referral form following the 20 week scan and forward to anaesthetic team in order that antenatal anaesthetic review can be arranged

3. THIRD TRIMESTER

- Ensure 28 week glucose tolerance test has taken place and results are documented. If for any reason the test has not taken place, refer to missed appointments policy
- Discuss benefits of breast feeding and offer information leaflet at 36 weeks
- Consider presentation scan and EFW at 36 weeks
- Re weigh at 36 weeks DO NOT recalculate BMI, document weight in pregnancy notes and on pro forma in main notes if available (see appendix 5)

Additional care for women with BMI ≥ 40

- Risk assessment for manual handling requirements
- Develop an action plan for equipment required during admission

4. LABOUR AND BIRTH

- Complete individual risk assessment and formulate management plan
- If no other risk factors consider green intra partum risk assessment pathway (see appendix 4)
- Recommend active management for third stage of labour
- Suture sub cutaneous tissue space at caesarean section if more than 2cm of sub cutaneous fat
- Alert theatre staff when a woman is due to have operative intervention in theatre or C/S if her weight is >120Kg
- Consider tissue viability assessment (see appendix 6)

Additional care for women with BMI ≥ 35

- Follow amber intrapartum risk assessment pathway
- Prescribe and administer antacid prophylaxis

Additional care for women with BMI ≥ 40

- Continuous fetal electronic monitoring advised. Red intrapartum risk assessment pathway.
- Establish early venous access
- Inform senior obstetrician and anaesthetist of admission
- At least 4 hourly review by senior obstetrician
- Senior obstetrician and anaesthetist to attend trial vaginal delivery in theatre or abdominal delivery

5. POSTNATAL CARE

- Encourage to mobilise as early as practicable
- Re-assess for thromboembolism
- Thrombo prophylaxis if indicated
- Give advice and support re benefits, initiation and maintenance of breastfeeding
- Whilst breastfeeding, recommend 10 mcg of Vitamin D daily
- Highlight importance of wound care
- If gestational diabetes; arrange glucose tolerance test for 6 weeks postnatal
- Offer life style and weight management advise, signpost to relevant organisations
- Consider tissue viability assessment if indicated re immobility > 4hours –access Trust risk assessment bundle (see appendix 6)

APPENDIX 2

MANAGEMENT OF WOMEN WITH RAISED BMI >30

Patient Sticker	University Hospitals of Morecambe Bay NHS Foundation Trust **CARE PLAN FOR WOMEN WITH BMI ≥30**

Booking Weight: _____ **Booking BMI:** _____ **Date:** _____

Tick or document result in appropriate booking BMI column when actioned, then date and sign

Discussions & Actions (appropriate for booking BMI)	**BMI ≥30**	**BMI ≥35**	**BMI ≥40**	**Date & Signature**
Information given about exercise, ie 30 minutes of exercise 5 times a week, eg walking, swimming, aqua-natal				
Advised given to take multivitamins containing 10µg vitamin D daily				
Possible intrapartum complications discussed in consultant-led antenatal clinic and documented: • Thromboembolism • Analgesia/anaesthetics • Increased risk of diabetes, high blood pressure and wound infection if caesarean				
Weight each trimester: 1st Trimester 3rd Trimester	……Kg ……Kg	……Kg ……Kg	……Kg ……Kg	
Results of GTT at 28 weeks	mmol/l	mmol/l	mmol/l	

ANTENATAL CARE MANAGEMENT PLAN INITIATED Y/N

Gestational diabetes identified at 28/40? Y/N
If Yes, document treatment plan:

Signature	Print Name	Date

INTRAPARTUM CARE MANAGEMENT PLAN INITIATED Y/N

Special equipment required? Y/N
If Yes, document details:

Manual handling issues identified? Y/N

If Yes, document details:

Tissue viability issues identified? Y/N

If Yes, document details:

Signature	Print Name	Date

ANAESTHETIC REVIEW Y/N

Specific risks identified:

Special equipment required:

Plan initiated in yellow birth notes Y/N

Signature	Print Name	Date

Name: Date of Birth: Hospital Number: (or affix hospital label here)

University Hospitals of Morecambe Bay NHS Foundation Trust

APPENDIX 3

Perform risk assessment at:

- Booking
- Every admission to hospital
- Admission in labour
- Immediately post delivery

1) Complete RA score **2) Complete Box 1** **3) Refer to Boxes 2 & 3 for actions**

Pre-existing risk factors	Score	Booking	Labour	P/N	Admission	Admission	Admission	Admission
		Score	Score	Score	Score	Score	Score	score
Previous recurrent VTE	3							
Previous VTE unprovoked or oestrogen related	3							
Previous VTE – provoked	2							
Known Thrombophilia	2							
Family History of VTE	1							
Medical co morbidities	2							
Obesity BMI ≥40 at booking	2							
Obesity BMI ≥30 or ≥ 90kg at booking	1							
Age ≥ 35 years	1							
Parity > 3	1							
Smoker	1							
Gross varicose veins	1							
Paraplegia	1							
Sickle Cell Disease	1							
Obstetric Risk Factors								
Dehydration/hyperemesis/OHSS**	1							
Multiple Pregnancy / ART	1							
Pre-eclampsia (this pregnancy)	1							
Prolonged Labour > 24 hours	1							
Mid-cavity or rotational forceps	1							
Caesarean section in Labour	2							
Elective caesarean section	1							
APH / PPH 1,000mls or Transfusion	1							
Transient Risk Factors								
Long Haul Travel (within last 4/52)	1							
Current systemic infection	1							
Immobility AN or PN > 24 hours	1							
Postpartum Risk factors								
Antenatal Thromboprophylaxis	3							
Surgical procedure in pregnancy or ≤6 weeks postpartum	2							
TOTAL SCORE								
DATE								
Signature								

* ART = Assisted Conception ** OHSS = Ovarian Hyperstimulation Syndrome

BOX: 1 RECORDING AND ACTION OF RISK ASSESSMENT: See Boxes 2 & 3 For Guidance

Gestation	RA Score	Obstetrician informed (Y/N)	Treatment prescribed	Date assessed	Risk assessed by: (Print and initial)
Booking					
In Labour					
Post birth					
AN admission					
AN admission					

AN admission					

Obstetric thromboprophylaxis Risk Assessment and Management

BOX: 2

Score	Risk Rating	Action
3 or more	**High Risk**	**AN: Requires obstetric referral & prophylaxis with LMWH) (See box 3)** **PN: Requires at least 6 weeks postnatal prophylactic LMWH**
2	**intermediate Risk**	**AN: consider prophylaxis with LMWH (See box 3)** **PN: at least 7 days prophylactic LMWH**
1	**Lower Risk**	**AN & PN: mobilisation and avoidance of dehydration**

BOX: 3 Antenatal & Postnatal prophylactic dose of LMWH

BOOKING WEIGHT (kg)	ENOXAPARIN DOSE
< 50	20 mg OD
50 – 90	40 mg OD
90 – 130	60 mg OD (can give in divided doses)
131 – 170	80 mg OD (can give in divided doses)
> 170	0.6 mg/kg/day OD (can give in divided doses)
50 – 90 High Prophylactic Dose	40 mg OD
Treatment Dose	1 mg/kg/day BD

BOX: 4

Bleeding risk
Haemophilia or other known bleeding disorder (e.g. von Willebrand's disease or acquired coagulopathy)
Active antenatal or postpartum bleeding
Women considered at increased risk of major haemorrhage (e.g. placenta praevia)
Thrombocytopenia (platelet count < 75 ×109)
Acute stroke in previous 4 weeks (haemorrhagic or ischaemic)
Severe renal disease (glomerular filtration rate < 30 ml/minute/1.73 m2)
Severe liver disease (prothrombin time above normal range or known varices)
Uncontrolled hypertension (blood pressure > 200 mmHg systolic or > 120 mmHg diastolic)

APPENDIX 4

Identified Risk Factors for Pre-Eclampsia

BMI	Identified risk	Booking Requirements
≥30	➢ First pregnancy (UHMBFT would not advise aspirin if this the sole risk factor) ➢ Maternal age .>40 years ➢ Family history of pre eclampsia ➢ Multiple pregnancy	Refer to Consultant Obstetrician for delivery plan
≥35	As above plus: ➢ Previous pre eclampsia ➢ 10 years since last baby ➢ booking diastolic BP / 80 mm Hg ➢ booking proteinuria 1+ on more than one occasion or 0.3g/24hrs ➢ certain underlying medical conditions such as antiphospholipid antibodies, pre-existing hypertension, renal disease or diabetes	Refer for Consultant Led Care
≥40	As Above	Refer for Consultant Led Care

APPENDIX 5

ADVICE ON HEALTHY EATING AND PHYSICAL EXERCISE

- There are no evidence based recommended weight gain ranges during pregnancy. The amount of weight a woman may gain during pregnancy can vary due to increased body fat, the unborn child, the placenta, amniotic fluid and increased blood and fluid volume (NICE 2010)

- At the earliest opportunity the healthcare professional should discuss the woman's eating habits and how physically active she is. It is important to find out if she has any concerns about her diet and that amount of exercise she does.

- The woman should be advised that a healthy diet and being physically active will benefit both herself and her unborn child during pregnancy and will also help achieve a healthy weight after giving birth.

- Dieting is not recommended during pregnancy as it may harm the health of the unborn child.

- For those eligible for Healthy Start Vouchers (women under 18 years of age and those receiving benefit payments) offer advice on how to use Healthy Start Vouchers in order to increase fruit and vegetable intake.

- Dispel myths around how much to eat during pregnancy as energy needs do not change in the first 6 months and then only change slightly in the last 3 months (by approximately 200 calories more per day, this equates to a pot of yogurt)

- Advise that moderate intensity physical exercise will not harm her or her unborn child.

- Advise that at least 30 minutes of moderate intensity physical activity per day is recommended. See NHS Choices 'Exercise in Pregnancy' for exercise tips available @ *www.nhs.uk/Planners/pregnancy*

- Offer specific and practical advice about being physically active during pregnancy. The aim of exercise being to stay fit, rather reach peak fitness. Individualise the exercise depending on the level of fitness already achieved. If a woman has not exercised before begin gradually with 15 minutes of continuous exercise three times a week increasing gradually to 30 minutes. If the woman has exercised regularly before pregnancy then she should be able to continue with no adverse effects.

- Explain to women who find exercise difficult that it is important not to be sedentary as far as possible.

Date: _____

Name: _____

RTX: _____

APPENDIX 6

Family & Clinical Services Division – Women's Health Department

CRITERIA FOR CONTINUOUS INTRAPARTUM RISK ASSESSMENT

To be used in conjunction with clinical guidelines

C = Continuous electronic fetal monitoring
A = Intermittent auscultation

		At Onset of Labour	Date and time of assessment				
Midwifery care with regular (minimum of 4 hourly) Labour Ward Co-ordinator and 'at the bedside' senior medical review – consultant involvement/awareness							
A.P.H.	C						
Diabetes on sliding scale	C						
Multiple Pregnancy	C						
Prematurity <34 completed weeks	C						
Severe Pre-Eclampsia	C						
Syntocinon augmentation in second stage of labour	C						
VBAC	C						
Breech	C						
Significant medical condition e.g. cardiac	C						
Fetal Blood Sampling	C						
Pathological CTG	C						
Raised BMI 40 or>	C						
Midwifery care with regular labour ward co-ordinator and senior medical review							
Diabetes (diet controlled)	C						
Induction of labour (syntocinon infusion)	C						
IUGR	C						
Meconium liquor (thick/fresh) if accompanied by CTG changes move to red	C						
Oligohydramnios	C						
Polyhydramnios	C						
Post term >42 weeks	C						
Prematurity (34-36 completed weeks)	C						
Prolonged SROM >24 hours (augmentation)	C						
Pyrexia > 38^{o}c	C						
Suspicious CTG	C						
Anaemia (HB < 99/dl)	C						
I.U.D.							
Raised BMI 35 – 40	C						
Midwifery-Led Care							
Low risk women at term in spontaneous onset of labour	A						
Latent phase of labour	A						

APPENDIX 7

Access the Trust 'Assess, Plan, Implement and Evaluate Risk Assessment Bundle' via the Intranet using the following link:

From the Home Page go to:
- Clinical services
- Nursing and midwifery
- Improving safety and reducing harm
- Safety bundles

Information re manual handling risk assessment, tissue viability risk assessment and available equipment is contained within this bundle.
Hard copies are available in the clinical areas.

APPENDIX 8

Equipment List for Women with a Raised BMI

Community

This will include the equipment available in General Practitioner Surgeries, Children's Centres

- Large Blood Pressure cuff
- Scales (Stand on scales)
- Large chair without arms
- Examination couch with a maximum weight

Hospital

- Large Blood Pressure Cuff
- Scales (Stand on scales)
- Large Chairs without Arms
- Large wheelchairs
- Ultrasound scan couches
- Maternity Ward Beds
- Delivery Beds
- Theatre Trolleys
- Operating Theatre table
- Lifting and Lateral Transfer Equipment
- Ultrasound Machine available for the Labour Ward
- Extra long Epidural and Spinal Needles

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GLOSSARY

Abbreviation	Definition
BMI	Body Mass Index
RCOG	Royal College of Obstetricians & Gynaecologists
CEMACH	Confidential Enquiry into Maternal and Child Health
PIH	Pregnancy Induced Hypertension
OGTT	Oral Glucose Tolerance Test
GDM	Gestational Diabetes Mellitus
LMWH	Low Molecular Weight Heparin
FH	Fetal Heart
VTE	Venous Thromboembolism

CHANGE CONTROL SHEET

This is a Controlled Document. The definitive version is on the intranet. Printed versions should be verified as valid with the intranet version.

AMENDMENT HISTORY

REVISION NO.	DATE OF ISSUE	PAGE/SECTION CHANGED	DESCRIPTION OF CHANGE
1.1	10.01.13	P6	clarification of Intrapartum risk discussion and Updated audit tables

DISTRIBUTION LIST

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GUIDELINE DEVELOPMENT TEAM

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DISTRIBUTION PLAN

Dissemination lead:	Maternity risk management team
Previous document already being used?	No
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Proposed action to retrieve out-of-date copies of the document:	Maternity risk management team to; archive previous guidance and remove intranet and hard copies
To be disseminated to:	All Obstetric Consultants, Matrons, Supervisors of Midwives and Practice Midwives
Chairpersons of approving committees, sub-committees or groups	Maternity Governance Lead Chair of Maternity Guideline Group and Maternity Risk Steering Group
Divisional and Department Heads	Family and Clinical Services Governance Lead Head of Midwifery
Proposed actions to communicate the document contents to staff:	Include in the UHMB Weekly News policy page E-mail guideline to all members of staff Hard copies in all clinical areas

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TRAINING IMPLICATIONS

Is training required to be given due to the introduction of this policy?	No
If yes, describe arrangements	