OBESITY MANAGEMENT IN PREGNANCY POLICY

1. INTRODUCTION

1.1 High body mass index (BMI) is associated with increased maternal and perinatal morbidity and mortality. In particular, higher risk of hypertension, thromboembolic disease, gestational diabetes, stillbirth and anaesthetic problems.

2. POLICY STATEMENT

2.1 The aim of this policy is to ensure that the BMI is calculated and recorded for all pregnant women, to ensure appropriate management of care for those women with a BMI greater than 30, during pregnancy and the post partum period.

3. ROLES AND RESPONSIBILITIES

3.1 Midwife
Is responsible for calculating and recording BMI, at booking, in the hand held records and for referring any woman with a BMI ≥ 35 to consultant care.

Obstetrician
Is responsible for the clinical management of women with a BMI > 30 and referral to anaesthetist.

Anaesthetist
Is responsible for review of those women who fulfil criteria for anaesthetic review and for documenting the findings in the patient's antenatal records.

4. PROCEDURE

4.1 **Antenatal** *(Also see Appendices 1 and 2)*

4.1.1 All women should have their BMI calculated on their weight at booking. This should be documented in the hand held records and in the patient's hospital records.

4.1.2 All women should be advised of the signs and symptoms of DVT, and the increased risk and morbidity associated with this. A Venous Thromboembolism Risk Assessment should be completed on all women, using the correct pro forma, at the indicated times *(Refer to Thromboprophylaxis in Pregnancy and the Puerperium Guideline in Trust-wide Management of Thromboprophylaxis in Adults Policy.)*

4.1.3 Staff must ensure appropriately sized blood pressure (BP) cuff is used every time BP checked and document the size of cuff used. If a large cuff is required this should be clearly documented in the patient's records.

4.1.4 Where referral is made to another healthcare professional, this and any subsequent assessment and management plan must be documented in the patient records.

4.1.5 Induction of labour for women with a BMI ≥35 should not be scheduled on Fridays, the weekend or public holidays to ensure availability of an obstetric anaesthetist, unless there are other urgent clinical indications apparent, and then only following discussion with anaesthetic team and senior obstetrician.

BMI ≥ 30

4.1.6 All women with a booking BMI ≥ 30 may be offered shared care between her community midwife and the maternity team in the hospital.

4.1.7 All women with a BMI ≥30 should be advised to have a GTT (glucose tolerance test) at 28/40 gestation and consultation in the consultant-led clinic to discuss possible intrapartum complications. Confirmation that a discussion has taken place to be documented on the proforma.

4.1.8 All women with a BMI ≥ 30 have a documented antenatal consultation, as early in

the pregnancy whenever possible, with a midwife or doctor to discuss healthy eating/weight management and possible intrapartum complications, eg pre-eclampsia, gestational diabetes, anaesthetic complications, thromboembolic disease.

BMI ≥ 35

In addition to the above:

4.1.9 Women with a booking of ≥ 35 should be advised to deliver in consultant-led unit.

4.1.10 An anaesthetic alert sticker is to be placed on the notes for all women with a BMI ≥35. For all women with a BMI ≥35 and co-morbidities, action as for women with a BMI ≥ 40. *(Refer 4.1.11)*.

4.1.11 All women with a BMI ≥35 should be given 5mg folic acid from pre-conception up to the end of the first trimester.

BMI ≥ 40

In addition to the above:

4.1.12 During the antenatal period, women with a BMI ≥40 at booking **must** be reviewed by the on-call obstetric anaesthetist in the antenatal clinic, and recommendations regarding management of analgesia during labour and/or operative delivery documented in the antenatal records on yellow edged anaesthetic sheet and discussed with the woman.

4.1.13 Women with a BMI ≥ 40 are to be reviewed in the antenatal clinic to identify any manual handling requirements or tissue viability issues in the third trimester. Where specialist equipment is identified as necessary, this should be documented in the intrapartum management plan *(See 4.6)*.

4.1.14 If induction of labour is required, then women with a BMI ≥ 40 **must** be admitted straight to CBC.

See also 4.4

4.2 **Intrapartum (All women with BMI ≥ 35 at booking or weight over 135 kg)**

4.2.1 Management when admitted in labour;

- The on call obstetric and anaesthetic registrars and on call obstetric and anaesthetic consultants should be notified of all women whose BMI ≥35 who are admitted in labour.

4.2.2 A labour risk assessment must be undertaken to identify any other co-morbidities and the intrapartum plan must be documented by the obstetric team on call. *(Refer to Risk Assessment in Labour Policy)*

4.2.3 Where antenatal anaesthetic assessment has not previously taken place, patients should be advised, by the on-call Anaesthetist, of the benefits versus the risks of epidural analgesia during labour; in order to avoid the increased likelihood of difficult tracheal intubation and post-operative ventilatory difficulties in the event of an emergency caesarean section being required.

4.2.4 When trial of instrumental delivery in theatre is being considered, this should be performed in theatre on the patient's delivery bed or using bariatric theatre table.

4.2.5 Assess the need for thromboprophylaxis measures *e.g.* TED stockings, Tinzaparin. Prophylactic Tinzaparin dose is measured according to patient's pre-pregnancy or booking weight. *(Refer to Thromboprophylaxis in Pregnancy and the Puerperium Guideline in Trust-wide Management of Thromboprophylaxis in Adults Policy.)*

4.2.6 **For all women weighing more than 135kg presenting in labour, the operating department team should be informed, to enable a bariatric table to be available**.

4.3 **If caesarean section required and patient ≥135kg:**

4.3.1 Personnel to be present:

- Two Anaesthetists - at least one Consultant preferably with an obstetric interest

- Two Obstetricians - must include one Consultant plus Staff Grade Doctor or Registrar

Unless mother or infant is compromised, do not proceed without these people.

4.3.2 Monitoring:

- ECG
- SaO_2
- Consider Invasive BP.

Recommend two IV lines

4.3.3 Operating Table:

- Patients weighing between 135 and 250 kg require the Bariatric Operating Top to be used
- Patients weighing more than 250 kg need transferring to a specialist unit or hire of appropriate equipment in advance of an elective LSCS

4.3.4 Method of anaesthesia:

- Regional technique preferred - long reach Whitacre and Tuohy needles are available
- GA (consider awake intubation)

4.3.5 Position:

- Transport lateral
- Use lateral tilt with extreme caution and use lumber support for dependent thigh and chest
- Do not attempt to turn in the event of vomiting as this may be hazardous

4.3.6 Booking and Administration:

- **Advance notification essential**
- Please inform relevant consultant obstetric anaesthetist if elective LSCS
- Elective booking on normal Obstetric list essential

4.4 **Management of a woman with a BMI ≥ 45 on Chesterfield Birth Centre (CBC) where vaginal delivery is anticipated:**

In addition to 4.2:

4.4.1 All women whose booking BMI ≥45 on admission to CBC should be notified to the duty obstetric and anaesthetic registrars and on call obstetric and anaesthetic Consultants.

4.4.2 Where counselling has not been initiated antenatally, patients should be advised of the benefits versus the risks of epidural analgesia during labour in order to avoid the increased likelihood of difficult tracheal intubation and post-operative ventilatory difficulties in the event of an emergency caesarean section being required.

4.4.3 When trial of instrumental delivery in theatre is being considered, this should be performed in theatre on the patient's delivery bed rather than an intensive care bed.

4.4.4 All recommendations as outlined for women undergoing elective caesarean section should be adhered to.

4.5 **Postnatal**

4.5.1 Encourage early mobilisation.

4.5.2 Consider thromboprophylaxis (dose calculated according to patient's weight) and TED's after discharge if concern regarding mobility, if necessary up to six weeks postpartum. *(Refer to Thromboprophylaxis in Pregnancy and the Puerperium Guideline in Trust-wide Management of Thromboprophylaxis in Adults Policy.)*

4.5.3 Document on the neonatal sheet that the mother has a raised BMI.

4.6 **Access to suitable equipment in all care settings**

The following equipment will be made available in designated care settings. Where suitable equipment is not available (i.e. scales within Sure Start/Children's Centres), then it is anticipated that the woman will be seen within the acute care setting where appropriate equipment is available;

Community setting;

- Large BP cuff

Antenatal Clinic

- Large and thigh BP cuff
- Scales up to 250kg
- Couch up to 260kg

Trinity ward/CBC

- Large and thigh BP cuff
- Scales up to 250kg
- Delivery bed up to 227kg
- Postnatal bed up to 260kg

Where suitable beds are not available, a Huntleigh Contura 1080 bed (max weight up to 450kg) can be hired via Medical Engineering, or if not available from there, then will be hired in direct from the company. Contact the Trust Moving and Handling Advisor for further information/assessment on a case by case basis.

Where appropriate equipment is not available within the acute care setting, an incident report should be completed, and the Matron/Consultant on call informed.

5. AUDIT ARRANGEMENTS

5.1 The following audits will be undertaken by members of the multidisciplinary team identified by the Labour Ward Lead:

1. An annual audit of the casenotes of women who have given birth (1% as a minimum) to assess compliance against the following standard:
   - BMI has been calculated and recorded for all women.

2. An annual 1% audit of the casenotes of women with a BMI $\geq$ 30 who have given birth (minimum 10 sets of notes) against the following standard:
   - Women have been advised to have a GTT at 28/40 and have been seen by a midwife or doctor to discuss possible intrapartum complications and the discussion has been documented.

3. An annual 1% audit of the casenotes of women who have given birth with a BMI $\geq$ 40 (minimum 10 sets of notes) against the following standards:
   - Women have been offered an antenatal consultation with an obstetric anaesthetist and a management plan documented in the antenatal records.
   - Women have had a documented assessment, in the third trimester, to determine manual handling and tissue viability issues.

5.2 Annual assessment of the availability of suitable equipment in all care settings (as per 4.6) for women with high BMI will be undertaken by individual matrons.

5.3 The results of all the above audits will be presented to the Directorate Audit Group. An action plan will be formulated and monitored by the Directorate Clinical Governance Group.

6. DEFINITIONS

6.1 BMI (body mass index) is the body weight in kilograms divided by the height in metres squared.

- BMI ≥ 30 is obese
- BMI ≥ 40 is morbidly obese

7. TRAINING REQUIREMENTS

7.1 During obstetric skills drills training, implications of obesity on high risk obstetric situations will be covered as shown in Directorate Training Needs Analysis.

8. KEY WORDS

8.1 BMI, obese, body mass index, bariatric

N.B. Reasons for not adhering to this policy MUST be documented in the patient's notes

9. REFERENCES

9.1 Related Policies

Emergency Caesarean Section Policy.

Elective Caesarean Section Policy.

Management of Thromboprophylaxis in Adults Policy (Thromboprophylaxis in Pregnancy and the Puerperium Guideline) – Trust-wide Policy.

Risk Assessment in Labour Policy.

9.2 Documents

Confidential Enquiry into Maternity and Child Health. (2004) **Why Mothers Die 2000 – 2002**, London: RCOG Press.

Confidential Enquiry into Maternity and Child Health. (2004) **Saving Mothers' Lives: Reviewing Maternal Deaths to Make Motherhood Safer 2003 – 2005**, London: CEMACH.

Department of Health (2007) **Maternity Matters: Choice, Access and Continuity of Care in a Safe Service**, London: COI.

National Institute for Health and Clinical Excellence. (2008) **Antenatal Care: Routine Care for the Healthy Pregnant Woman**, London: NICE.

Royal College of Obstetricians and Gynaecologists, Royal College of Anaesthetists, Royal College of Midwives, Royal College of Paediatrics and Child Health. (2008) **Standards for Maternity Care: Report of a Working Party**, London: RCOG Press.

Royal College of Obstetricians and Gynaecologists (2006, 5 October) **The Growing Trends in Maternal Obesity**, PCOG Press Release.

The Association of Anaesthetists of Great Britain and Ireland, and the Obstetric Anaesthetists' Association. (2005) **OAA/AAGBI Guidelines for Obstetric Anaesthetic Services** (Revised Edition), London: OOA/AAGBI.

National Institute for Health and Clinical Excellence (NICE) Guidance No 27 (2010) **Dietary Interventions and Physical Activity Interventions for Weight Management Before, During and After Pregnancy**

The Centre for Maternal and Child Enquiries (CMACE)/ Royal College of Obstetricians and Gynaecologists (RCOG) Joint Guideline (2010), **Management of Women with Obesity in Pregnancy**, London, RCOG Press.

Confidential Enquiry into Maternity and Child Health (2007) **Saving Mothers' Lives: Reviewing maternal deaths to make motherhood safer - 2003-2005**. London: CEMACH.

Nursing and Midwifery Council (2008) **The Code: Standards of conduct, performance and ethics for nurses and midwives**. London: NMC.

Nursing and Midwifery Council (2009) **Record Keeping: Guidance for nurses and midwives**. London: NMC.

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CARE PATHWAY FOR OBESITY MANAGEMENT IN PREGNANCY

BOOKING BMI 30 – 34	BOOKING BMI 35 – 39	BOOKING BMI ≥ 40
• Information about exercise, ie 30 minutes of exercise 5 times a week eg walking, swimming, aquanatal • Requires GTT to be booked for 28 weeks • Advise woman to take multivitamins containing 10µg vitamin D • Weigh each trimester • Documented consultation with a midwife or doctor to discuss possible intrapartum complications	• Information about exercise, ie 30 minutes of exercise 5 times a week eg walking, swimming, aquanatal • Requires GTT to be booked for 28 weeks • Advise woman to take multivitamins containing 10µg vitamin D • Weigh each trimester • Documented consultation in the consultant-led clinic to discuss possible intrapartum complications • Book for consultant-led care and advise delivery in the consultant-led unit • Advise that the anaesthetist will be informed when patient is in labour • An anaesthetic alert sticker to be placed on the woman's notes • If pre-existing co-morbidities, an anaesthetic review is required in the antenatal period	• Information about exercise, ie 30 minutes of exercise 5 times a week eg walking, swimming, aquanatal • Requires GTT to be booked for 28 weeks • Advise woman to take multivitamins containing 10µg vitamin D • Weigh each trimester • Documented consultation in the consultant-led clinic to discuss possible intrapartum complications • Book for consultant-led care and advise delivery in the consultant-led unit • Advise that the anaesthetist will be informed when patient is in labour • An anaesthetic alert sticker to be placed on the woman's notes • Anaesthetic review is required in the antenatal period • If maternal weight exceeds 135kg then inform theatre when she is admitted in labour as a bariatric table may be needed • A documented individual assessment, in the 3rd trimester, to determine manual handling requirements for childbirth and to discuss tissue viability issues.

Patient Sticker	Chesterfield Royal Hospital NHS 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				
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				
Weigh each trimester: 1st Trimester 2nd Trimester 3rd Trimester	 …..… kg …..… kg …..… kg	 …..… kg …..… kg …..… kg	 …..… kg …..… kg …..… kg	
GTT at 28 weeks	mmol/l	mmol/l	mmol/l	
Book for consultant-led care and advise delivery recommended in the consultant-led unit				
Advise that the anaesthetist will be informed when patient is in labour				
Anaesthetic alert sticker placed on the patient's records				
Anaesthetic review undertaken (for BMI ≥ 40 **and** BMI ≥ 35 if pre-existing co-morbidities)				
If maternal weight exceeds 135kg then inform theatre when she is admitted in labour as a bariatric table may be needed				
Documented individual assessment undertaken in the 3rd trimester, to determine manual handling requirements for childbirth and to discuss tissue viability issues.				

P.T.O.

ANTENATAL CARE MANAGEMENT PLAN

Signature	Print Name	Date

Gestational diabetes identified at 28/40? Yes / No

If yes, document treatment plan:

Signature	Print Name	Date

INTRAPARTUM CARE MANAGEMENT PLAN

Special equipment required? Yes / No

If yes, document details:

Manual handing issues identified? Yes / No

If yes, document details:

Tissue viability issues identified? Yes / No

If yes, document details:

Signature	Print Name	Date

ANAESTHETIC REVIEW

Advised analgesia:

Advised anaesthetic:

Specific risks identified:

Special equipment required:

Signature	Print Name	Date