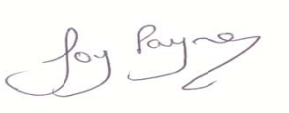
Obesity in Pregnancy

Clinical Director

Date: 21st January 2013

Head of Midwifery



J. Payne
Date: 21st January 2013

Meta Data

Guideline Title:	Obesity in Pregnancy
Guideline Sponsor:	Obstetrics & Gynaecology Directorate
Date of Approval:	21st January 2013
Approved by:	Obstetrics & Gynaecology Directorate
Review Date:	21st January 2016
Related Policies/Topic/Driver	• Booking Appointment and Risk Assessment pathway • Caesarean section • Diabetes in pregnancy • Electronic Fetal Monitoring (EFM) • High Dependency Unit (HDU) • Recovery • Thromboprophylaxis in pregnancy • Thromboprohpylaxis • Training needs analysis (TNA) • Vaginal Birth after Caesarean

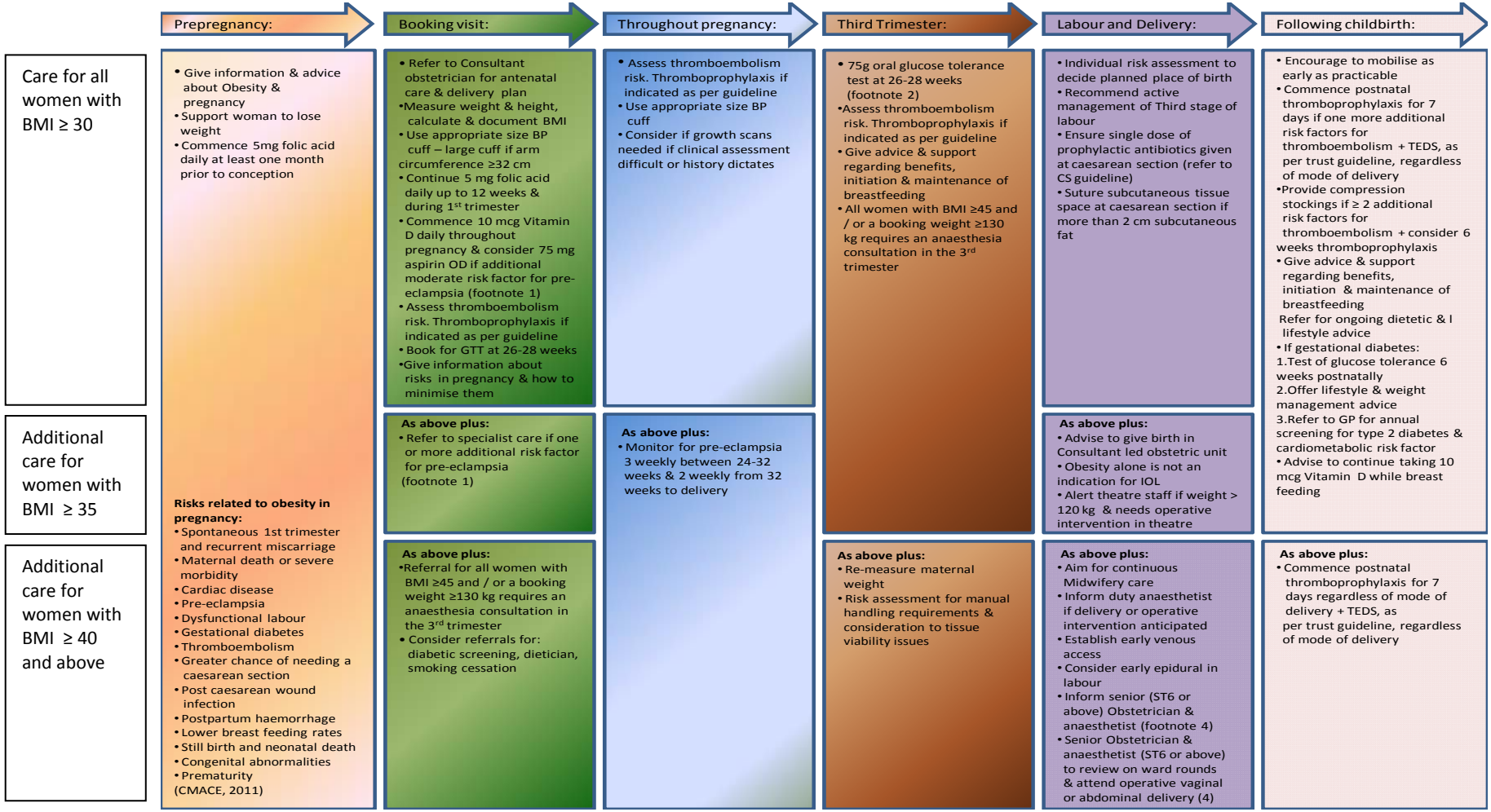
Revision History

Version No.	Date of Issue	Author(s)/ Reviewer(s)	Reason for Issue
1	December 2010	S. Saunders-Blundell - RM C Rhodes – Cons. Obs.	New Guideline
2	January 2013	A. Chaudhuri – Cons. Obs. & Gynae. M. Thangavelu – Registrar M. Dobson - RM	Full Review, including: Updated for CMACE, 2011 & NICE Guideline 2010 Dietary Interventions and physical activity interventions for weight management before, during and after pregnancy. Audit/Monitoring Non-compliance with GTT screening &

Content & Page Numbers

1. Flowcharts

Flowchart 1 – Pre-pregnancy, antenatal & postnatal care pathway for women with obesity



*** 1. Risk factors for PET:** first pregnancy, previous pre-eclampsia,10 years since last baby, 40 years, family history of pre-eclampsia, booking diastolic BP 80mmHg, booking proteinuria 1+ on more than one occasion or 0.3g/24 hours, multiple pregnancy, and certain underlying medical conditions such as antiphosopholipid antibodies or pre-existing hypertension, renal disease or diabetes (CMACE/RCOG, 2010). **2.** See anaesthetic section & appendix 2

2. Overview/ Introduction

Taken from CMACE, 2011:
Obesity in pregnancy is usually defined as a Body Mass Index (BMI) of 30 kg/m2 or more at the first antenatal consultation. This is calculated by the person's weight in kilograms divided by the square of their height in metres (kg/m2). There are three different classes of obesity: BMI 30.0–34.9 (Class I);BMI 35.0–39.9 (Class 2); and BMI 40 and over (Class 3 or morbid obesity),1,2 which recognise the continuous relationship between BMI and morbidity and mortality.2In 2007, it was estimated that 24% of women in the UK aged 16 years or more were obese, an increase from the 16% calculated for 1993. The women who died from the notes available to the enquiry, the BMI was available for 227 (87%) others who died from *Direct or Indirect* causes. It was not recorded, or was not stated, for 34 women, many of whom died earlier in pregnancy and had not been booked for maternity care so their BMI had not been calculated. In a few other cases, the data were missing. Up to 47% of mothers who died from *Direct* causes were either overweight or obese, as were 50% of women who died from *Indirect* causes. This means that overall, 49% of the women who died and for whom the BMI was known were either overweight or obese.

BMI (kg/m^2)	NICE classification	NHSIC (NHS Information Centre) Classification
<18.5	Unhealthy weight	Underweight
18.5 – 24.9	Healthy weight	Normal
25.0 – 29.9	Overweight	Overweight
30.0 – 34.9	Obesity I	Obese I
35.0 – 39.9	Obesity II	Obese II
40 or over	Obesity III	Morbidly obese

BMI Classifications (source: CMACE 2011).

Women affected by maternal obesity need to be treated with dignity and respect. Their needs should be openly discussed regarding their care and regarding any identified risks involved during pregnancy.

Risks related to Obesity in pregnancy for mother and baby (CMACE, 2011):
• Spontaneous 1st trimester and recurrent miscarriage • Maternal death or severe morbidity • Cardiac disease • Pre-eclampsia • Dysfunctional labour • Gestational diabetes • Thromboembolism • Greater chance of needing a caesarean section • Post caesarean wound infection • Postpartum haemorrhage • Lower breast feeding rates • Still birth and neonatal death • Congenital abnormalities • Prematurity

The National Institute for Clinical Excellence (NICE, 2006) has identified the period after pregnancy and childbirth as a time when women are likely to gain weight and in addition, many conceive again during this period. Therefore, appropriate and timely management of a woman's weight in current pregnancy and during the postnatal period may reduce the risk of her entering any subsequent pregnancies overweight or obese.

3. Objective of the Guideline

The objective of this guideline is to ensure that women receive appropriate, individualised care based on contemporary evidence and best practice to manage the risks associated with obesity in pregnancy.

4. Body of the Guideline

Preconception advice

Any woman with a BMI ≥30 kg/m^2 who is planning a pregnancy, or following attendance for sub fertility/early pregnancy loss, will be encouraged and signposted to the community early intervention services. Women should be informed and counselled about the health risks associated with obesity.
A woman who wishes to lose weight should be supported to follow a programme of dietary change, weight loss and regular exercise which achieves the aim of an optimum BMI at least 2 – 3 months prior to pregnancy. Advise 5 mg folic acid daily, for at least one month pre-conception and during the first trimester.
In severe obesity (BMI ≥35 kg/m^2) consider

- Referral to a dietician
- Screening for diabetes
- Check blood pressure (BP), large cuff if arm circumference **≥32 cm**
- Smoking cessation referral/advice

Body mass index, antenatal care and place of birth

At the first antenatal consultation, all pregnant women should have their weight and height measured using appropriate equipment and their body mass index (BMI) calculated. Divide the weight in kilograms by the square of the height in metres (kg/m^2).

The height, weight and BMI at booking should be recorded:

- in the hand held notes
- on the antenatal summary card in the hospital notes in the designated box
- on the maternity information system under booking summary

Those women presenting for the first time during pregnancy with a booking BMI ≥30 kg/m^2 should be given an early opportunity to discuss with a healthcare professional the risks associated with obesity in pregnancy and management options. NICE guideline on Dietary interventions and physical activity interventions for weight management before, during and after pregnancy (2010) recommends to explain to women with a BMI of 30 or more at the booking appointment how this poses a risk, both to their health and the health of the unborn child. Explain that they should not try to reduce this risk by dieting while pregnant. The aim is to provide accurate and accessible information sensitively, which empowers the woman to actively engage with health professionals and the services available to her.

Referral to either Good Hope Hospital (GHH) or Birmingham Heartlands Hospital (BHH) for maternity team based care. A maternity team comprises of: midwives, obstetricians, anaesthetists, dieticians, neonatologists and other specialists working in partnership.

Counselling

Women with a booking BMI ≥30 should have an informed discussion antenatally about obstetric and intrapartum complications associated with a high BMI and management strategies considered, this should include weight management. Document this in the hospital notes. Women with a BMI ≥35 should be advised to deliver in an obstetric led unit, either at GHH or BHH. A leaflet should be provided to support informed discussion. Advise to take 10 micrograms of Vitamin D supplementation daily during pregnancy and to continue following childbirth if breast feeding. Also, a supplement of folic acid 5mg daily up to 12 weeks gestation.

Assessment for risk of Venous thromboembolism

Women with a booking BMI ≥30 should be assessed at their first antenatal visit and throughout pregnancy for the risk of **venous thromboembolism** (VTE), as per the Trust and local guidelines. Prescribe prophylactic doses appropriate for maternal weight as below when risks identified, in accordance with the RCOG Guideline.[18]

Body weight	Enoxaparin (100 units/mg)
<50 kg	20 mg once daily
50 - 90 kg	40 mg once daily
91 - 130 kg	60 mg once daily
131 - 170 kg	80 mg once daily
>170 kg	0.6 mg/kg/day

- BMI ≥30 plus 2 or more additional risk factors for VTE: consider antenatal prophylactic Enoxaparin, usually continuing for 6 weeks postnatally (repeat risk assessment).
- BMI ≥30: encourage early postnatal mobilisation
- Consider postnatal thromboprophylaxis for 7 days regardless of mode of delivery plus graduated compressions stockings(TEDS) if:
    - BMI ≥30 with 1 or more additional persisting risk factors for VTE
    - BMI ≥30 with 2 or more additional persisting risk factors for VTE should also use TEDS & consider thromboprohylaxsis for 6 weeks
    - BMI ≥40 offer postnatal thromboprophylaxis (7days Clexane & TEDS) to all regardless of mode of delivery, or other risk factors

Gestational diabetes

NICE recommends that all pregnant women with a booking BMI >30 should be screened for **gestational diabetes**.[19] See Appendix 1 for further information on trust practice, including issues of compliance with the NICE guideline.

Advise 10 micrograms Vitamin D supplementation daily during pregnancy and breastfeeding.

All pregnant women with a booking BMI ≥30 should have risk factors for **pre-eclampsia** (PET) determined, as recommended by NICE.[16] An appropriate size of arm cuff should be used for all blood pressure measurements. Document the size cuff used on maternal notes i.e. ‘use large cuff’.

- BMI ≥30 and one other MODERATE risk factor for PET: may benefit from Aspirin 75 mg od from 12 weeks gestation until birth of the baby.[20]
- BMI ≥35 and one additional risk factor for PET: refer early for specialist input to care.

- BMI ≥35 and no additional risk factors: community monitoring for PET minimum of 3-weekly 24-32 weeks gestation and 2-weekly thereafter.

Manual handling and tissue viability

Women with a booking BMI ≥40 should have a documented assessment in the third trimester of pregnancy by an appropriately qualified professional to determine manual handling requirements for childbirth and consider tissue viability issues.

Some women with a booking BMI <40 may also benefit from assessment of manual handling requirements in the third trimester and this should be decided on an individual basis by the lead health professional providing maternity care.

NB: patients need to be re-weighed in order to calculate an accurate dose for prophylactic Enoxaparin

Provision of Anaesthetic services

Antenatal Anaesthetic assessment
All women with a BMI ≥ 45 and / or a booking weight ≥ 130 kg should have an antenatal anaesthetic consultation in the 3rd trimester with an Obstetric Anaesthetist. The purpose of the consultation is to identify in a timely manner those ladies who are anticipated to have both a difficult airway AND a difficult regional technique, so that an appropriate delivery plan can be made in conjunction with the Obstetric team. All plans should be documented in both the green hand held notes and the patient's medical records.

Women who fall into one of the following three categories do not need to be seen in the anaesthetic clinic:
- Women with a BMI ≥ 45 and / or a booking weight ≥ 130 kg who have had 1 or more uncomplicated vaginal deliveries and are aiming for a repeat vaginal delivery.
- Women with a BMI ≥ 45 and / or a booking weight ≥ 130 kg who have received an anaesthetic assessment in a previous pregnancy and no airway concerns identified.
- Elective Women with a BMI ≥ 45 and / or a booking weight ≥ 130 kg who are scheduled to have a Caesarean Section at BHH. These ladies can be referred to the Consultant Anaesthetist led Pre-operative Assessment Clinic at BHH; at GHH a referral should be made to attend the Obstetric Anaesthetic Clinic.

Anaesthetic assessment on admission to Delivery Suite
All women with a BMI ≥ 4O and / or a booking weight ≥ 125 kg should be highlighted to the duty delivery suite anaesthetist irrespective of whether they have been seen by an anaesthetist antenatally. Potential difficulties with venous access, regional or general anaesthesia can then be identified by the duty anaesthetist. Any concerns can in turn be escalated to the on-call Consultant Anaesthetist.

Weight limitations of the operating tables:
BHH
First floor theatre: Eschmann T50 300Kgs
Ground floor theatre: Maquet Alphmax 450Kgs
Ground floor theatre 2: Stryker Surgical Platform 226Kgs
GHH
Theatre 2 Eschmann MR 135kgs
Theatre 1 300kgs
Note: the RCOG/CMACH make anaesthetic recommendations for all pregnant women with a booking BMI ≥40. Refer to Appendix for trust non-compliance.

Facilities and equipment

If women require specialist equipment, an individual management plan is to be documented in the health records in the antenatal clinic records. Procurement of specialist equipment can be arranged in advance by the midwifery team. Annual risk assessment of equipment and environment will be performed by delivery suite matron(s).

All maternity units should have a documented environmental risk assessment regarding the availability of facilities and equipment to care for pregnant women with a high BMI in all care settings. This risk assessment should address the following issues:

- Circulation space
- Safe working loads of equipment (up to 250kg)
- Appropriate theatre gowns
- Equipment storage
- Transportation
- Staffing levels
- Access doors wide enough to allow specialist equipment for obese women

Availability to maternity staff within the unit and community midwives, and procurement process for, specific equipment:

- large blood pressure cuffs
- sit-on /step on weighing scale
- large chairs without arms
- large wheelchairs
- ultrasound scan couches
- hoists (up to 250kg)
- appropriate delivery beds
- extra long spinal and epidural needles for regional analgesia

NB: GP surgeries and children centres will have their own environmental risk assessments

All health professionals involved in maternity care should receive training in manual handling techniques and the use of specialist equipment which may be required for pregnant and postnatal women with obesity.

Care in labour (also refer to anaesthetic section)

Provided there is no additional risk factor (e.g. preeclampsia or diabetes) and the admission CTG is normal, intermittent fetal heart rate monitoring should be carried out. Ultrasound scan may be used for assessment of fetal heart if necessary. If continuous CTG is needed consideration should be given to the use of fetal scalp electrode.

All women with a BMI ≥30 should be recommended to have active management of the third stage of labour. This should be documented in the intrapartum notes.

Postnatal advice

Thromboembolic risk assessment should be documented and thromboprophylaxis should be offered (refer to thromboprophylaxis guideline) and encourage early postnatal mobilisation.

Obesity is associated with low breastfeeding initiation and maintenance rates. Women with a booking BMI ≥30 should receive appropriate specialist advice and support antenatally and postnatally regarding the benefits, initiation and maintenance of breastfeeding.

5. Reason for the Development of the Guideline.

The guideline provides information to all clinicians as to the most appropriate management of women with obesity in pregnancy.

6. Methodology

Development of the guidelines adheres to a process of examining the best available evidence relevant to the topic, incorporating guidance and recommendations from national and international reports.

Finalised guidelines will ultimately be approved and ratified by the directorate locally.

7. Implementation

Following approval the guideline will be disseminated and available for reference to all members of the multidisciplinary team via the Trust and Obstetric intranet site; also paper copies will be stored in a marked folder within a designated clinical area.

All unused/previous guidelines will be archived electronically and in paper format within the trust.

8. Monitoring

Multidisciplinary auditing of a clinical guideline will be allocated and overseen by the Clinical Audit Lead.

Element to be monitored	Tool	Frequency
Minimum requirements: • the calculation and recording of the BMI for all women in the health records and maternity information system • all women with a BMI ≥30 should be advised to book for maternity team based care (shared) • 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 and that a documented management plan for labour and delivery should be discussed • 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	Proforma supported by maternity information system and clinical records.	Annual: 1% or 10 sets, whichever is the greater, of all health records of women who have delivered 1% or 10 sets, whichever is the greater, of all health records of women who have delivered who required antenatal consultation with an obstetric anaesthetist 1% or 10 sets, whichever is the greater, of all health records of women who have delivered who required antenatal consultation with an appropriately trained professional 1% or 10 sets, whichever is the greater, of all health records of women who have delivered who required an individual documented assessment in the third trimester of pregnancy

• 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		
Reporting arrangements	**Acting on recommendations and lead(s)**	**Change in practice and lessons to be shared**
The completed reports will go to the clinical governance group and be presented at the departmental audit meetings. Action plans will be documented in minutes.	The leads will use the electronic tracker system for audit to track action plans, which will have stated time frames. To ensure completion of actions, updates will be reported to the clinical governance group by the clinical audit lead or deputy.	Required changes to practice will be identified and actioned within a specific time frame. A lead member of the team will be identified to take each change forward where appropriate. Lessons will be shared with all the relevant stakeholders. Non-compliance to actions from audit will be escalated to the Directorate governance meetings; further non-compliance will be finally escalated to the Women's and Children's Quality and Safety for resolution.

9. Application of Guideline

This guideline applies to all pregnant women with a BMI ≥30.

10. References

1. Heslehurst N, Rankin J, Wilkinson JR et al (2010) Obesity in pregnancy: a study of maternal obesity in England, UK: trends in incidence and demographic inequalities in 619 323 births, 1989-2007. International Journal of Obesity.

2. Lewis G, editor. *Confidential Enquiry into Maternal and Child Health. Saving Mothers' Lives – reviewing maternal deaths to make motherhood safer 2003-2005.* London: CEMACH, 2007.

3. Lashen, H, Fear K, Sturdee DW. Obesity is associated with increased risk of first trimester and recurrent miscarriage: matched case-control study. Human Reproduction 2004; 19(7):1644-6

4. Rasmussen SA, Chu SY, Kim SY, Schmid CH, Lau J. Maternal obesity and risk of neural tube defects: a metaanalysis. *American Journal of Obstetrics and Gynecology* 2008;198(6):611-619.

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6. Sebire NJ, Jolly M, Harris JP, Wadsworth J, Joffe M, Beard RW, et al. Maternal obesity and pregnancy outcome: a study of 287,213 pregnancies in London. *International Journal of*

Obesity & Related Metabolic Disorders: Journal of the International Association for the Study of Obesity 2001;25(8):1175-82.
7. O'Brien TE, Ray JG, Chan W-S. Maternal body mass index and the risk of preeclampsia: a systematic overview. *Epidemiology* 2003;14(3):368-74.
8. Nuthalapaty FS, Rouse DJ, Owen J. The association of maternal weight with cesarean risk, labor duration,and cervical dilation rate during labor induction.[erratum appears in Obstet Gynecol. 2004 May;103(5Pt 1):1019]. *Obstetrics and Gynecology* 2004;103(3):452-6.
9. Chu SY, Kim SY, Lau J, Schmid CH, Dietz PM, Callaghan WM, et al. Maternal obesity and risk of stillbirth: a metaanalysis. *American Journal of Obstetrics & Gynecology* 2007;197(3):223-8.
10. Shah A, Sands J, Kenny L. Maternal obesity and the risk of still birth and neonatal death. *Journal of Obstetrics and Gynaecology* 2006;26(Supplement 1):S19.
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12. Amir LH, Donath S. A systematic review of maternal obesity and breastfeeding intention, initiation and duration. *MC Pregnancy and Childbirth* 2007;7:9
13. NICE Guideline CG43 Obesity. NICE, 2006
14. CMACE/RCOG Joint Guideline Management of Women with Obesity in Pregnancy (2010) RCOG London, 2010.
15. NICE Guideline PH27: Dietary Interventions and physical activity interventions for weight management before, during and after pregnancy. NICE, 2010.
16. NICE Guideline no. CG62: Antenatal care: Routine Care for the healthy pregnant woman. NICE, 2008
17. NICE Guideline CG92: Venous thromboembolism – reducing the risk. NICE, 2010
18. RCOG Guideline no 37. Reducing the risk of thrombosis and embolism during pregnancy and the puerperium. London: RCOG, 2009.
19. NICE Guideline CG63. Diabetes in Pregnancy. NICE, 2008.
20. NICE Guideline CG107. The management of hypertensive disorders during pregnancy. NICE, 2010.

11. Appendices

Appendix 1 - Compliance with NICE recommendations on screening for gestational diabetes and CMACE/RCOG recommendations on anaesthetic care for women with obesity in pregnancy

Diabetes in pregnancy (NICE Guideline No 63, 2008) states:
Any pregnant woman with a body mass index above 30 kg/m^2 should have a formal OGTT at 24-28 weeks. This is reiterated in 'Management of women with obesity in pregnancy' (CMACE/RCOG Joint Guideline, 2010).

Currently Good Hope Hospital (GHH) has capacity to comply with these requirements.

At Birmingham Heartlands Hospital (BHH) and Solihull there is non-compliance with both requirements as capacity is limited. An audit of women booking showed that 68% of bookers (at BHH alone) would need GTTs based on NICE criteria, which equates to >3000 GTTs per year. Currently >2000 are performed per year, but there is inadequate capacity (space/ staffing) to increase the workload (figures from 2010 guideline).
Current situation: all women are screened at booking with random blood glucose (RBG), which is then repeated at 28 weeks. If the RBG is greater than 8 they have a full OGTT.

Screening for gestational diabetes using fasting plasma glucose, random blood glucose, glucose challenge test and urinalysis for glucose should not be undertaken.

Action taken at the time of recognition (2010):
The following steps have been taken after discussion at the O&G Clinical Governance Group:

- Escalated to Trust Clinical standards Committee (CSC) who have advised:
  - Entry on the obstetric directorate risk register
  - Escalation to Division 5 Women and Children's Quality and Safety Committee.
- Trust level: CSC chair shall table these in a CSC report to governance and risk committee for the trust in December 2010 addressing the implementation of NICE recommendations. Will also ask that the risks be noted at the Governance and Risk committee.
- Obstetric directorate level - costing of additional GTTs that have to be done to comply will be discussed in the report from the clinical lead.

NB: at the time of reviewing this guideline in January 2013 the situation remains same

Management of women with Obesity in pregnancy (CMACE/RCOG 2010) states:
Pregnant women with a booking 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 medical records.

While HEFT is not in line with current National Recommendations, the management of obese women (as set out in the guideline) reflects our patient population and what is practically achievable. The reviewing of obstetric anaesthetic staffing at both sites is ongoing at directorate level.

All women with a BMI <18 or >35 (at first visit) are automatically booked under a named Consultant (refer to Booking Appointments and Risk assessment pathway).

Appendix 3 - Launch and Implementation Plan for Clinical Guidelines

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

Action	Who	When	How
If previous document is in use: proposed action to retrieve out-of-date copies of the document (electronic and/or paper)	Maggi Dobson	Upon ratification of new guideline	Logged and archived electronically, and in paper format within each trust
Initiate addition to clinical guidelines Sharepoint	Maggi Dobson	Upon ratification	Trust intranet
Communicate new guideline/changes to guideline	Audit Leads Clinical Risk Trust Trainers Dieticians Obstetricians Anaesthetists Midwives Specialist midwives	Following ratification	Guideline distribution panel will be informed of ratification. Regular updates to be given at audit meeting, directorate meetings, and through mandatory training programmes
Offer awareness training/incorporate within existing training			Through induction and mandatory training programmes
Circulation of document (paper)	Maggi Dobson	Upon ratification	To a designated area within each trust
Circulation of document (electronic)	Maggi Dobson	From draft 1 through to ratification	Drafts via core distribution panel and again upon ratification

Appendix 4 - <u>Clinical Guidelines Appraisal Checklist</u>

All new clinical guidelines must be appraised using this appraisal checklist before submission to the Clinical Standards Committee for formal ratification (adapted from Appraisal of Guidelines Instrument, AGREE Collaboration, 2001).

The appraisal tool will be completed by the clinical guideline Lead or Author with the support and advice of the Directorate of Healthcare Governance.

1. The overall objective(s) of the guideline is (are) specifically described.

Strongly Agree	4	3 ✓	2	1	Strongly Disagree

2. The patients to whom the guideline is meant to apply are specifically described.

Strongly Agree	4 ✓	3	2	1	Strongly Disagree

3. The target users of the guideline are clearly defined.

Strongly Agree	4	3 ✓	2	1	Strongly Disagree

4. The health benefits, side effects and risks have been considered in formulating the recommendations.

Strongly Agree	4 ✓	3	2	1	Strongly Disagree

5. The recommendations are specific and unambiguous.

Strongly Agree	4	3 ✓	2	1	Strongly Disagree

6. The different options for management of the condition are clearly presented.

Strongly Agree	4 ✓	3	2	1	Strongly Disagree

7. Key recommendations are easily identifiable.

Strongly Agree	4	3 ✓	2	1	Strongly Disagree

8. The guideline presents key review criteria for monitoring and audit purposes.

Strongly Agree	4 ✓	3	2	1	Strongly Disagree

9. There is an explicit link between the recommendations and the supporting evidence.

Strongly Agree	4 ✓	3	2	1	Strongly Disagree

10. A timescale for reviewing the guideline is provided.

Strongly Agree	4 ✓	3	2	1	Strongly Disagree

11. The guideline was consulted with individuals from all the relevant professional groups.

Strongly Agree	4 ✓	3	2	1	Strongly Disagree

SCORE = 40

(<u>NB</u> a score of at least 33 must be obtained before formal ratification by the Clinical Standards Committee can be obtained)

Guideline Circulation listing - Core members

Obstetricians	**A-Z listing**
Obstetric Consultant BHH & Audit Lead	Barber Katherine
Gynaecology Consultant GHH	Cartmill Richard
Gynaecology Consultant BHH	Chakravarti Swati
Obstetric & Gynaecology Consultant GHH (Locum)	Chaudhuri Amit
Gynaecology Consultant GHH	Constantine Glyn
Obstetric & Gynaecology Consultant BHH	Das Kausik
Obstetric & Gynaecology Consultant BHH & Guideline Lead	George Susha
Obstetric & Gynaecology Consultant GHH	Giri Vibha
Obstetric & Gynaecology Consultant BHH	Gupta Pratima
Obstetric & Gynaecology Consultant GHH	Honest Honest
Obstetric & Gynaecology Consultant GHH	Houghton Susan
Obstetric & Gynaecology Consultant GHH	Howland Elizabeth
Obstetric & Gynaecology Consultant BHH	Hutchon Susan
Obstetric & Gynaecology Consultant BHH	Irani Shirin
Obstetric & Gynaecology Consultant GHH	Kalkat Ravinder
Obstetric & Gynaecology Consultant GHH (Locum)	Kumar Mohan
Obstetric & Gynaecology Consultant BHH/SOL	Matharu Gurminder
Obstetric & Gynaecology Consultant BHH	Papaioannou Spyros
Obstetric Consultant BHH/GHH	Patni Shalini
Obstetric & Gynaecology Consultant BHH	Pradhan Poonam
Obstetric Consultant GHH	Rhodes Cathy
Gynaecology Consultant, Lead for Clinical Governance	Saha Raj
Clinical Director & Obstetric Consultant HEFT	Wyldes Michael
Midwifery	
Antenatal Day Unit Manager GHH & Midwife	Abukhalil Maxine
Infant Feeding co-ordinator BHH	Alejandro Andrene
Ward 4 Manager GHH & Midwife	Andrews Elizabeth
Midwife & Midwife Trainer BHH	Austin Clare
Bereavement Midwife BHH	Beesley Clare
Diabetic Specialist Midwife GHH & Supervisor of Midwives	Buckley Helen
Solihull Antenatal Clinic Midwifery Manager	Carbery Vivienne
Matron Maternity Clinical Services GHH, Midwife & Supervisor of Midwives	Coleman Maggie
Midwife BHH	Collins Wendy
Community Midwife & Supervisor of Midwives GHH	Dean Louise
Clinical Risk Manager HEFT, Midwife	Deegan Carolyn
Community Midwife BHH & Supervisor of Midwives	East Paula
Midwife & Supervisor of Midwives BHH	Ebanks Sandra
Associate Head of Midwifery, Quality & Governance	Errington Michelle
Bereavement Midwife GHH	Evans Debra
Clinical Services Matron BHH & Supervisor of Midwives	Foster Lorna
Midwife & Supervisor of Midwives GHH	Harman Sarah
Community Midwife & Supervisor of Midwives GHH	Hawes Carol
Delivery Suite Matron BHH & Supervisor of Midwives	Hill Naomi
Associate Head of Midwifery, Community	Hogan Amanda
Screening Midwife GHH	James Teresa
Midwife & Midwifery Trainer BHH	Jeffs Denise
Midwife SBU	Lester Sharon
Fetal Medicine Screening Midwife & Supervisor of Midwives BHH	Lilburn Joan
Community Midwife & RCM Representative	McGuigan Karen
Community Midwife Supervisor of Midwives GHH	Miner Lisa
Clinical Investigations Advisor, Midwife & Supervisor of Midwives BHH/HEFT	Murray Letitia
Head of Midwifery HEFT	Payne Joy
Midwife & Supervisor of Midwives GHH	Saunders Suzanne
Infant Feeding co-ordinator GHH	Scott Jackie
Clinical Risk Midwife HEFT & Supervisor of Midwives BHH	Stewart Maria

Midwife Willow Suite BHH & Supervisor of Midwives	Westwood Susan
Ward 5 Manager, Midwife & Supervisor of Midwives GHH	Wilson Suzanne
Delivery Suite Manager GHH	Wright Joselle
Screening Midwife GHH	Wyatt Tessa
Neonatalogists/Paediatricians	
Neonatologist Consultant GHH	El-Shimy Nagui
Neonatologist BHH	Fradd Victoria
Neonatologist Consultant GHH	Gandhi Anjum
Neonatologist BHH	Garikapati Vidya
Neonatologist Consultant GHH	Gupta Sanjay
Neonatologist Consultant GHH	Jayaraman Rajesh
Neonatologist Consultant GHH	Kallappa Chetana
Neonatologist Consultant GHH	Meran Joanne
Neonatologist Consultant BHH	Mupanemunda Richard
Consultant Paediatrician. Named Dr for Child Protection	Michael Plunkett
Neonatologist BHH	Singh Jaideep
Neonatologist BHH	Storey Imogen
Neonatologist BHH	Tiron Irina
Neonatal Nurse Manager BHH	Woodman Catherine
Anaesthetists	
Anaesthetic Consultant BHH	Davis-Gomez Nicole
Anaesthetic Consultant GHH	Kelly Gillian
Anaesthetic Consultant GHH	Moore Simon
Anaesthetic Consultant BHH	Osborn Nicola
Anaesthetic Consultant GHH	Thomas David
Anaesthetic Consultant & Anaesthetic lead BHH/HEFT	Walker Liz
Additional expertise:	
Outreach Librarian	Clayton Susan
Blood Practitioner Nurse	Concannon Elizabeth
Radiologist Consultant HEFT	Crowe Paul
Emergency Department Consultant BHH	Dorrian Susan
Radiologist Consultant HEFT	Ganeshan Arul
Clinical Lead, Obstetric Sonographer	Grant Helen
Midwifery Ward Manager – Cedar Ward	Greenhill Tracey
Director of Infection Control & Consultant Microbiologist	Gupta Itisha
Formulary Lead Pharmacist & Pharmacy Representative for Clinical Standards Committee	Hingley Theresa
Blood Practitioner Nurse	Khorsandi Jayne
Clinical Director of Emergency Medicine HEFT	MacNamara Aidan
Gynaecology Matron HEFT	Nash Tracey
Paediatric Consultant, Respiratory Medicine BHH	Ninan Titus
Clinical Services Director, Consultant Virologist	Osman Husam
Directorate Pharmacist HEFT – Paediatric & Women's Health	Pinel Wendy
Outreach Librarian	Pulgari Preeti
Senior University Lecturer, Midwife & Supervisor of Midwives	Quarrell Kate
Gynaecology, Clinical Nurse Specialist GHH	Rutter Jacqui
Haematology, Consultant HEFT – Oncology, Transfusion & Laboratory Medicine	Smith Neil
Senior University Lecturer & Midwife	Sutton Lisa
Laboratory Medicine & Blood Transfusion	Taylor James

*this list is not exhaustive as relevant specialities will be consulted in relation to guideline, and distribution is often circulated for wider consultation via core members

Title of Guideline: Management Obesity in Pregnancy

Directorate: Obstetrics and Gynaecology

Clinical Guideline Lead: Dr Susha George

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