Document Title:	Obesity in Pregnancy (Management) Guideline
Document Purpose:	To provide guidance for clinicians in the management of the pregnant woman with obesity
Document Statement:	The Trust will ensure that evidence based guidelines are followed in the management of pregnant women with obesity
Document Application:	Division of Surgery, Women and Children
Responsible for Implementation:	Clinical Director, Consultants, Head of Midwifery, Matrons, Supervisors of Midwives, Practice Development Midwife

Main imperatives of this document are:

- During the antenatal period all aspects of management of care – antenatal, intrapartum and postnatal should be discussed with the woman and clearly documented within the hand held health records.
- A pregnant woman's BMI should be measured by a midwife at the first available opportunity rather than using self reported measurements.
- Women with a BMI ≥30 should be advised to take 5mg folic acid supplementation daily, starting at least one month before conception and continuing during the first trimester of pregnancy.
- A woman with a BMI of 30-34.9 at booking can have midwifery led care. The Midwife should give the woman the information leaflet titled 'Why your Weight matters during pregnancy and after birth' (Appendix 5). The midwife should complete the checklist for women with a BMI≥30 (Appendix 1b).
- If a woman's BMI is ≥35 at booking she should be referred for Consultant Obstetric care. The Obstetrician should complete the checklist for women with a BMI>30 (Appendix 1b).
- Women with a booking BMI ≥30 are advised to take 10 micrograms Vitamin D supplementation daily during pregnancy and while breastfeeding.
- A woman with a BMI ≥35 should be advised to give birth in an obstetric unit to reduce the increased risk of maternal and fetal adverse outcomes. An individualised risk assessment regarding planned place of birth for women with a booking BMI of 30-34.9.
- Women with a BMI ≥40 should be re-weighed in the third trimester.
- Women with a booking BMI ≥ 35 should have an individualised decision for VBAC (vaginal birth after caesarean) following discussion with the Obstetrician. Please refer to Vaginal Birth After Caesarean Section Guideline).
- If a woman's BMI is ≥40 at booking she should be referred for an anaesthetic review.
- Women with a BMI ≥40 should have a documented assessment in the third trimester of pregnancy by a midwife to determine manual handling requirements for childbirth and consider tissue viability issues.
- The anaesthetist covering Delivery Suite should be informed when a woman with a BMI ≥40 is admitted to the Delivery Suite if delivery or operative intervention is anticipated.
- All women undergoing caesarean section, who have more than 2cm subcutaneous fat, should have suturing of the subcutaneous tissue space in order to reduce wound infection and wound separation.
- The Obstetric theatre staff should be alerted regarding any woman whose weight exceeds 120kg and who is due to have an operative intervention in theatre.

The full document can be accessed through the Document Management System

Document Classification:	Clinical Practice	**Document Reference:**	CP/GU/00124
Version Number:	5.0	**Secondary Reference:**	
Issued by:	Clinical Director	**Effective Date:**	June 2006
Author:	Practice Development Midwife	**Review Date:**	March 2015
Sponsor:	Head of Midwifery	**Expiry Date:**	March 2022

Associated Documents

1. Maternity Thromboprophylaxis guidelines
2. Minimal Moving and Handling Policy
3. Guideline for Intrapartum Fetal Monitoring
4. Transfer of body to viewing room and viewing procedure

This guideline has been diversity impact risk assessed

APPROVAL RECORD		
Validated by Facilitator:	Document Control Group	**Date:** Nov 2009
Agreed by Specialist Group:	Maternity Policy Steering Forum Resubmitted	**Date:** Nov 2009 **Date:** April 2011 Date: February 2012

DOCUMENT HISTORY

Revision History

Revision Date	Previous Revision Date	Summary of Changes	Changes marked
Sept 2009	June 2009	Compliance with NHSLA standards	
November 2009	Sept 2009	Glucose tolerance test replaced random blood sugar	
March 2011	November 2009	Amended Title of Guideline Criteria for folic acid and Vitamin D supplementation (BMI ≥30), including referral requirements (consultant obstetrician and anaesthetist) Updated criteria for giving birth in the Obstetric Unit Manual handling requirements Indications for Vaginal Birth after Caesarean Section Indications for referral to the Antenatal	

		Clinic/Maternity Assessment Centre Frequency of community visits for women with a booking BMI ≥35 with no additional risk factors (between 24 and 32 weeks gestation). Re-weighing women (BMI ≥35) on admission in labour/induction Care required for women with a BMI of ≥40 Informing obstetric theatre staff should be when a woman's weight exceeds 120kg and who is due to have an operative intervention in theatre. Requirements for suturing of the subcutaneous fat layer during Caesarean Sections Active management of the third stage of labour (BMI ≥35) Requirements for VTE risk assessment and thromboprophylaxis Obesity and breastfeeding support Requirements for glucose tolerance test (BMI ≥30) who have been diagnosed with gestational diabetes Flow chart/care plan (BMI ≥30 - ≥40)	
February 2012	March 2011	Glucose tolerance test replaced random blood sugar. Appendix 1b proforma amended to included patient information leaflet. Patient information leaflet added to appendix 5.	

Obesity in Pregnancy Guideline

CONTENTS **PAGE**

1.0 INTRODUCTION AND CALCULATION OF BMI

Body Mass Index (BMI) is typically used as a means of estimating body mass, and can be calculated quickly and without expensive equipment. However, BMI cannot take into factors such as frame size and muscularity. It cannot distinguish what proportions of human body weight are muscle, fat, bone and cartilage, or water weight.

Despite this limitation, the BMI is regarded as an accurate tool for measuring whether sedentary individuals are underweight, normal weight, overweight or obese. It has been used by the World Health Organisation (WHO) as a standard for recording obesity since the early 1980's.

BMI is an objective pseudo-scientific measure that the individual person's height and weight. BMI can be calculated by dividing the woman's weight in kilograms by the square of the woman's height in metres. (BMI = kg (i.e. weight in kg) divided by m^2 (i.e. height in metres, squared (i.e. multiplied by itself), or using BMI calculators.

For example, a woman of 80 kg weight and height 2m has a BMI of 20 (i.e 80 divided by 4)

BMI (Quetlet Index) = weight (Kg)/ [height (m)]^2 BMI	Classification
<18.5	Underweight
18.5 - 24.9	Normal weight
25 - 29.9	Overweight
30 – 39.9	Obese
40 or more	Morbidly obese

Table 1: BMI Classification

2.0 RISK IN RELATION TO PREGNANT WOMEN

Maternal obesity has become one of the most commonly occurring risk factors in obstetric practice.

In the 2003-2005 CEMACH (2007) report 15% of all women who died from direct or indirect causes were morbidly or super morbidly obese. This report also demonstrated that those obese pregnant women with BMI more than 30 are far more likely to die accounting for 28% of the women who died.

Women with obesity have an increased risk of pregnancy – related complications and adverse outcomes compared to women with a healthy BMI, and findings from the CMACE observational study show that increasing levels of obesity are associated with:

- Miscarriage
- Congenital abnormality especially neural tube defects
- Gestational diabetes
- Hypertension, pre-eclampsia and eclampsia
- Sleep apnoea
- Induction of labour
- Caesarean section
- Prematurity
- Slow labour
- Shoulder dystocia

- Fetal macrosomia
- Still birth/neonatal death
- Thrombo-embolic complications
- Wound infections post Caesarean Section
  - Infections from other causes
  - Postpartum haemorrhage
  - Low breast feeding rates
  - Anaesthetic risks – difficulty with cannulation, regional anaesthesia, increased morbidity/mortality with general anaesthesia
  - Cardiac disease
  - Maternal death or severe morbidity

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3.0 MANAGEMENT OF PREGNANT WOMEN – SEE APPENDIX 1- 3 FOR MANAGEMENT FLOW CHART

ANTENATAL CARE

- A pregnant woman's BMI should be measured and recorded in the health record by the midwife at the first available opportunity rather than using self reported measurements. Preferably this should be at the booking consultation. If at the initial consultation there are no facilities for measuring BMI or her physical assessment, the woman should be given the first available appointment at the Antenatal Clinic or other venue that has the required facilities/equipment.

- Women with a BMI ≥ 30 should be advised to take 5mg folic acid supplementation daily, starting at least one month before conception and continuing during the first trimester of pregnancy.

- Women with a booking BMI ≥30 are advised to take 10 micrograms Vitamin D supplementation daily during pregnancy and while breastfeeding. The midwife can refer the woman to the General Practitioner and/or Obstetrician in order to arrange the prescriptions.

- A woman with a BMI below 30 at booking requires no further intervention and can be booked as midwife led care.

- A woman with a BMI of 30 or over at booking should have a glucose tolerance test performed at 24-28 weeks gestation and will be booked under consultant care and advised to deliver in the hospital setting.

- A woman with a BMI of 30-34.9 at booking can have midwifery led care. The Midwife should give the woman the information leaflet titled 'Why your Weight matters during pregnancy and after birth'. This is attached in Appendix 5.
  The midwife should complete the checklist for women with a BMI≥30 (Appendix 1b).

- If a woman's weight exceeds the capacity of the weighing scales at the first consultation, she will need to be referred to the Antenatal Clinic to access barametric scales.

- The height and weight should be recorded in the records and the BMI calculated and recorded. Measurement should be recorded in the handheld notes and Maternity Protos. **A BMI ≥35 should be highlighted within the part 1 hand held health records**.

- A woman with a BMI of ≥35 at booking should be referred for Consultant Obstetric care (see **Appendix 1a and 1b**). The Obstetrician should have an informed discussion antenatally about the possible intrapartum complications associated with a high BMI and management strategies considered. This should be documented in the notes. The Obstetrician should complete the checklist for women with a BMI≥30 (Appendix 1b).

- A woman with a BMI ≥35 should be advised to give birth in an obstetric unit to reduce the increased risk of maternal and fetal adverse outcomes. An individualised risk assessment regarding planned place of birth for women with a booking BMI of 30-34.9.

- Women with a BMI ≥40 should be re-weighed in the third trimester.

- A woman with a BMI ≥40 should be referred to the 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 (Appendix 2a).

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

- Blood pressure should be monitored using an appropriately sized cuff for the woman to ensure accurate readings at all antenatal consultations.

- Weight reduction in pregnancy is not currently advised, however it should be reinforced that pregnancy is also not a time to over eat. Women should be offered advice on a healthy well balanced diet for pregnancy.

- Assessment of risk factors for VTE (venous thromboembolism) should be undertaken early in pregnancy and identified at risk women should discuss this and a plan of management be made with their Consultant. **This risk assessment should be repeated if the woman is admitted to hospital or develops any other intercurrent problems. Please refer to Venous Thromboembolism in Maternity Care Guideline.**

  If an accurate assessment of the fetal position or fetal growth cannot be determined during the third trimester then a fetal growth scan should be considered

- Women with a booking BMI ≥ 35 should have an individualised decision for VBAC (vaginal birth after caesarean) following discussion with the Obstetrician. Please refer to Vaginal Birth after Caesarean Section Guideline).

- Women with a booking BMI ≥35 who have at least one additional risk factor for pre-eclampisa should be referred to Maternity Assessment Centre and/or Antenatal Clinic for Obstetric input. Additional risk factors include:
  - First pregnancy

- Previous pre-eclampsia ≥ 10 years since last baby,
- Age of ≥40 years
- Family history of pre-eclampsia
- Booking diastolic BP of ≥80mmHg ≥
- Booking proteinuria ≥1+ on more than 1 occasion or ≥0.3g/24 hours
- Multiple pregnancy and certain underlying medical conditions such as antiphospholipid antibodies or pre-existing hypertension, renal disease or diabetes.

- 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 and 32 weeks gestation and 2 weekly intervals from 32 weeks to delivery.
- The Obstetrician should consider 75mg Aspirin daily if additional risk factors for pre-eclampsia

INTRAPARTUM CARE

- All equipment should be checked to ensure that it meets the woman's requirements. Additional information is available from the Trust policy on Minimal Manual Handling. Equipment can be obtained or hired via the Duty Sister on the general side of the hospital (bleep 6487 or 6190) or the bed equipment co-ordinator on phone number 7172 (see Appendices 3 and 4). Additional support can be gained from the Trust Manual Handling Trainers or Back Care Advisors on bleep 6304 or via switchboard.

- Observe Trust Minimal moving and handling policy for Bariatric patients, ensuring the transfer of equipment to her place of care in the post-natal ward as appropriate.

- Obesity alone is not an indication for induction of labour and a normal birth should be encouraged.

- Women with a BMI ≥40 should be re-weighed on admission (for induction or in labour) to facilitate dose calculation of drugs.

- A woman with a BMI of 35 or above should be admitted to the Delivery Suite for labour care and have continuous fetal monitoring during labour. An obstetric management plan should already be documented in the hand held health record and there should be a plan of care for delivery.

- Complete Intrapartum checklist for all women with a **BMI≥40** (Appendix 2b).

- If there is doubt regarding fetal presentation, an ultrasound scan (USS) should be performed. on Delivery Suite

- Intravenous (IV) access should be established and blood taken for full blood count (FBC) and Group and Save **for women with a BMI ≥ 40**. If the woman's blood pressure is raised, then blood should also be screened for liver function tests (LFT), urea & electrolytes (U+E), coagulation, uric acid and aspartate aminotransferase (AST).

- A fetal scalp electrode or ST analysis (STAN) monitoring should be considered if the Cardiotocograph (CTG) from an external transducer is not of interpretable quality (please refer to Guideline for Intrapartum Fetal Monitoring).

- The Registrar or Consultant Obstetrician should be involved within the woman's care to make subsequent plans of management during labour

- The anaesthetist covering Delivery Suite should be informed when a **woman with a BMI ≥40** is admitted to the Delivery Suite if delivery or operative intervention is anticipated (Appendix 2b)

- Oral intake should be restricted to clear fluids only and oral ranitidine (150mg) should be administered every 6 hours due to the increased risk of delivery by lower segment Caesarean Section(LSCS)

- **All women undergoing caesarean section, who have more than 2cm subcutaneous fat, should have suturing of the subcutaneous tissue space in order to reduce wound infection and wound separation.**

- Anti-embolic stockings should be recommended and offered. Legs should not be in stirrups for long periods of time. Reassessment of risk factors for VTE should be completed and 'at risk' women identified to the Obstetric team for a plan of care during delivery and the postnatal period.

- The possibility of shoulder dystocia and postpartum haemorrhage should be anticipated.

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

- 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 notes.

POSTNATAL CARE

- Early ambulation should be encouraged following delivery in conjunction avoidance of dehydration to prevent risk of postpartum venous thromboembolism (VTE).

- All women should have a VTE risk assessment following delivery. Please refer to the Venous Thromboembolism in Maternity Care Guideline. All women with a BMI ≥40 should be offered postnatal thromboprophylaxis for 7 days regardless of their mode of delivery.
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- Refer to Maternity Guideline for the Prevention and Management of Venous Thromboembolism in Maternity Care

- Obesity is associated with low breastfeeding initiation and maintenance rates. Women with a booking BMI ≥ 30 should receive appropriate advice and support antenatally and postnatally regarding the benefits, initiation and maintenance of breastfeeding. Women should also be prescribed Vitamin D (10 micrograms) daily, whilst breast feeding.

- All women with a booking BMI ≥30 who have been diagnosed with gestational diabetes should have a test of glucose tolerance test (GTT) approximately 6 weeks after giving birth. Women, who had a normal GTT following childbirth, should have regular 'follow up' with the GP to screen for the development of Type 2 diabetes.

4.0 MANUAL HANDLING AND EQUIPMENT (APPENDIX 3 AND 4)

Whilst women with a BMI of ≥35 will be advised to give birth in the hospital setting (on the Delivery Suite), they may decide not to do so. Equally they may attend a variety of settings for antenatal care i.e. home, GP surgery or children's centres.

An assessment on the availability of required equipment should be undertaken. Suitable equipment may range from the availability of the appropriate sized blood pressure cuff to a bed or operating theatre table which has an identified safe working load (SWL).

As women may access a number of services during their pregnancy, it is essential that the BMI is documented in order to ensure that other services can assess the availability/suitability of equipment e.g. ultrasound couches for safe working load (SWL).

For each piece of equipment there is a SWL. It is imperative that the SWL is not exceeded as this affects the stability and mechanism of the equipment. Prior to the use of any piece of equipment, the SWL should be ascertained to ensure that it will not be exceeded.

The following list is compliant with the SWL of common equipment, and should be used in conjunction with obtaining the correct SWL due to equipment being continually replaced and changed and therefore different from the list compiled:

- Hill Rom Affinity Delivery Bed – 227Kg
- Huntleigh Profiling Bed – 180-250Kg
- Profiling Beds – minimum 180Kg although some have a SWL of 267Kg
- Armchair – 127Kg
- Porta 200 Wheelchair – 200Kg
- Theatre Tables – 135Kg and 200kg
- Pentaflex Mattress

- Refer to the Trust Guidelines for Minimal Moving and Handling which includes advice for Bariatric Patients

- Consider discussing safe working load (SWL) issues with a member of the Trust Manual Handling Team during working hours; Appendix 4 for out of hours guidelines.

5.0 ROLES AND RESPONSIBILITIES

Clinical Director

The Clinical Director for Women and Children's services must ensure that all clinical staff is aware of the Obesity in pregnancy (management) Guideline. They are responsible for the implementation of this guideline within the Maternity services.

Head of Midwifery, Matrons, Ward Managers, Coordinators & Supervisors of Midwives

The Head of Midwifery is responsible, along with the above-stated midwifery leads, for the implementation of this guideline within maternity services.

6.0 MONITORING AND AUDIT

Monitoring of compliance with this guideline will be by use of a monitoring tool which incorporates the minimum criteria for CNST. There is a designated Lead Midwife and Consultant who has responsibility for the monitoring.
Where deficiencies are identified, recommendations will be made and monitored for improvement. Findings will be presented at the monthly Maternity Clinical Governance meetings and any recommendations and changes in practice agreed. An action plan will be developed if required and progress on action plans reported to the Maternity Clinical Governance Group.

The Obesity in Pregnancy will be audited annually to monitor compliance. Where audit has identified any deficiencies, recommendations and action plans will be developed and changes implemented accordingly.

The Specialist Midwife – Audit & Research is responsible for reporting the outcome of audits and progress against action plans to the Maternity Clinical Governance Group. Changes will be highlighted to all relevant staff through Maternity Matrons and Obstetric consultants. Any barriers to implementation will be risk assessed and where necessary added to the Directorate Risk Register.

Audit	The management of Obesity
Method	• 1% of all health records of women who have delivered. • 1% of all health records of women who have delivered who required an antenatal consultation with an anaesthetist. • 1% of all health records of women who have delivered who required an antenatal consultation with an obstetric consultant. • 1% of all health records of women who have delivered who required an individual documented assessment in the third trimester of pregnancy
Lead Professionals	Specialist Midwife Audit and Research
Dissemination of Results	Monthly directorate audit meetings are multidisciplinary in addition other specialities are involved as necessary
Audit/Action progress	Reported to the Maternity clinical governance group as detailed above. Progress on the Action Plan will be monitored by and reported back on a quarterly basis to the Maternity Clinical Governance Group.

7.0 TRAINING AND DISSEMINATION

This guideline will be disseminated to all staff via the Trust's Document Management System. Midwifery Managers will ensure that all staff sign to state that they are aware of and have read the guideline. Hard copies will be available within the policy folder within each clinical area. The Clinical Tutor for obstetrics and the Practice Development Midwife, in association with Matrons, will determine if training, regarding the guideline, is required and actioned accordingly. The Practice Development Midwife will ensure that training records are maintained regarding this.

8.0 APPROVAL PROCESS

The Maternity Policy Steering Forum is formulated and consists of the Head of Midwifery, Head of Gynaecology/Matron, Midwifery Practice Educator, all Obstetric Consultants, Specialist Midwife Practice Development, and a Supervisor of Midwives.
All policies, procedures and guidelines will be ratified by this forum and signed off by the Head of Midwifery and Consultant Obstetrician. Cover sheets will be forwarded to the Women and Children's Clinical Governance Group for noting.

9.0 CONTENT CONTRIBUTORS

Group/Committee/Individuals Consulted
Clinical Midwives
Back Care Advisor
Specialist Midwife – Clinical Risk Management
Donna Southam – Specialist Midwife Clinical Audit
Consultant Obstetrician
Maternity Policy Steering Forum
Consultant Anaesthetist

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Authorised by

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Mr. A Ikomi	Lynne Cook
Consultant Obstetrician	Head of Midwifery
Sub Director for Obstetrics	Supervisor of Midwives

APPENDIX 1a: MANAGEMENT OF WOMEN WITH A BMI ≥ 35

ANTENATAL BOOKING VISIT

- Measure BMI using chart and record in maternity health record and record on the maternity protos
- Record height and weight separately
- Continue or advise 5mg folic acid daily up to 12 weeks gestation
- Assess venous thromboembolism risk factors using the VTE Risk assessment tool.
- Refer for Consultant Obstetrician appointment to discuss delivery plan
- Advise Vitamin D 10mcg daily throughout pregnancy (to be prescribed either from GP or Obstetrician)
- Book appointment for 24-28 week GTT

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ANTENATAL OBSTERICIAN VISIT

- Commence Vitamin D 10mcg daily throughout pregnancy
- Consider 75mg aspirin daily if additional moderate risk factor for pre-eclampsia
- Assess thromboembolism risk and commence thromboprophylaxis if indicated
- Give information about risks of obesity and pregnancy and how to minimise them (patient information leaflet shown in appendix 5).
- Monitor for pre-eclampsia every 3 weeks between 24-32 weeks gestation and every 2 weeks from 32 weeks gestation until delivery.
- Women who have at least one additional risk factor for pre-eclampsia are referred to Maternity Assessment Centre and/or Antenatal Clinic for Obstetric input. Additional risk factors include 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 1 occasion or ≥0.3g/24 hours, multiple pregnancy and certain underlying medical conditions such as antiphospholipid antibodies or pre-existing hypertension, renal disease or diabetes.
- Advise the women to give birth on the Delivery Suite

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LABOUR AND DELIVERY

- Recommend active management of the third stage of labour
- Prophylactic antibiotics given at caesarean section
- Suture subcutaneous tissue at caesarean section if more than 2cm of subcutaneous fat.
- Alert obstetric theatre staff if weight >120kg and needs operative intervention.

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POSTNATAL

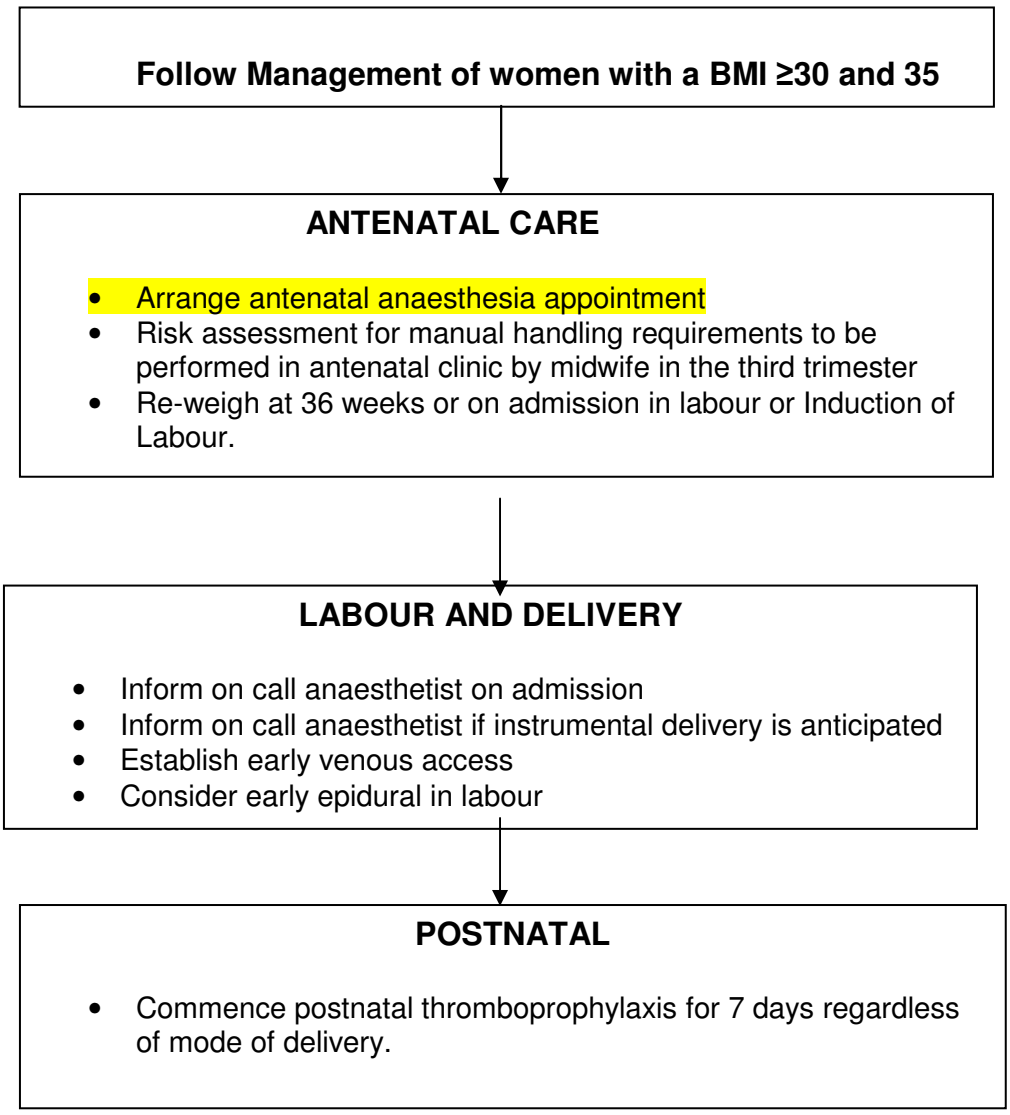
- Encourage early mobilisation
- Perform VTE risk assessment.
- Give advice and support regarding benefits, initiation and maintenance of breastfeeding
- If breastfeeding recommend,10mcg Vitamin D
- If gestational diabetic refer for GTT at 6 weeks postnatal

APPENDIX 1b: CHECKLIST FOR WOMEN WITH A BMI ≥30

BMI 30-34.9 Completed by Midwife
BMI ≥35 Completed by Obstetrician

Name:	
Hospital Number:	
NHS Number:	
Gestational age at booking:	
Weight recorded at booking (KG):	
Height recorded at booking (cms):	
BMI recorded at booking:	
Advice on healthy eating:	Yes/ No
Advice on exercise in pregnancy:	Yes/No
Given Patient information leaflet on Why your Weight Matters during Pregnancy and Birth Leaflet	Yes/ No
Folic acid 5 mg in first trimester of pregnancy:	Yes/No
Vitamin D 10mcg throughout pregnancy:	Yes/No
Venous Thromboembolism Risk:	Low Intermediate High
If Intermediate/High state management plan:	
Glucose Tolerance Test at 24-28 weeks:	Yes/No
Consider 75mg aspirin daily if additional moderate risk factor for Pre-eclampsia:	Yes/No/ N/A
Complications in pregnancy and labour discussed:	Yes/No
Place of delivery discussed:	Midwifery Led Birthing Unit/ Delivery Suite/ Home Birth
Anaesthetic review requested: (For women BMI ≥40)	Yes/No/ N/A
Manual handling and tissue viability assessment: (For women BMI ≥40)	Yes/No/ N/A
Weight at 36 weeks (For women BMI ≥40)	
Breastfeeding encouraged:	Yes/No
Name:	
Signature:	
Date:	

APPENDIX 2a: MANAGEMENT OF WOMEN WITH A BMI ≥40



APPENDIX 2b - INTRAPARTUM CHECKLIST FOR WOMEN WITH A BOOKING BMI ≥40

Name:…….. Hospital Number:……...

NHS Number:…….

Weight on admission in labour: ……..

Inform anaesthetist of admission:	Yes/No
Confirm fetal presentation (by scan if necessary)	Yes/No/ N/A
Site venflon as early as possible:	Yes/No
Send bloods for group and save:	Yes/No
Prescribe TEDS:	Yes/No
Recommend clear fluids only:	Yes/No
Prescribe regular ranitidine:	Yes/No
Continuous CTG when in established labour : (Consider STAN if difficulty with recording fetal heart rate)	Yes/No
Discuss with the woman early epidural is advisable if she requests epidural:	Yes/No
Recommend actively management of 3rd stage (unless pre-eclamptic)	Yes/No

Name:. ……..

Signature:…….

Designation:…….

Date:…….

Time:……

APPENDIX 3: OUT OF HOURS GUIDELINES FOR THE MANAGEMENT OF MANUAL HANDLING OF BARIATRIC PATIENTS

Admission to Hospital

On assessment if a patient requires specialised manual handling equipment the following guidelines must be adhered to.

Transferring

1. Patients must *at all times* be transferred using patient transfer (PAT) slide and glide sheet if unable to transfer independently.

Bed

1. Identify appropriate bed dependent on weight and body mass index.
2. In the first instance other wards/areas must be contacted to identify the availability of the appropriate bed required.
3. If all beds are being utilised for the appropriate patients then hiring a bed must be considered.

Hoist

1. Identify appropriate hoist dependent on weight and body mass index.
2. In the first instance if the hoisting system provided in the area in not appropriate then other wards/areas must be contacted to identify the availability of the appropriate hoist required.
3. If the Gantry Hoist is identified but currently in use then hiring must be considered.

Slings

1. Identify appropriate Sling dependent on weight and body mass index.
2. In the first instance if the slings in the area are not appropriate then other wards/areas must be contacted to identify the availability of the appropriate sling required.
3. If specialist slings are required e.g. amputee, bariatric are currently in use then hiring should be considered.

Commode

1. Identify appropriate commode dependent on weight and body mass index.
2. In the first instance if a commode in the area is not appropriate then other wards/areas must be contacted to identify the availability of the appropriate commode required.
3. If specialised commodes are required and existing bariatric commodes are currently in use, then hiring should be considered.

Chair

1. If patient refuses to be nursed in a bed consideration should be given to the use of a profiling bed that converts into a chair position.
2. If this is not appropriate then other wards/areas must be contacted to identify the availability of the appropriate chair required.
3. If specialised chairs are required and. bariatric chairs are currently in use then hiring should be considered.

Bariatric Deceased Patients

1. Bariatric deceased patients at all times must be transported on the appropriate bariatric bed.
2. Appropriate numbers of staff must be made available for the transfer and transportation of the deceased patient.

APPENDIX 4: BARIATRIC EQUIPMENT AVAILABLE IN THE TRUST

SWL = safe working load

Beds

- 159 standard profiling beds (SWL 250kgs/39stone)
- 20 Profiling Beds (SWL 267kg/42stone)
- 7 Profiling beds with extended width (SWL 445kgs/70stone)
- 1 Profiling bed with extended width (318kgs/50stone)

Trolleys

- 20 trolleys (SWL 250kg/39stone)
- 1 trolley (SWL 400kg/64stone)

Hoists

- 35 standard hoists (SWL 200kg/32stone)
- 4 portable Gantry systems (SWL 400kg/64stone)
- Variable sizes of slings capable of lifting (400kg/64stone)

Chairs

- 7 Riser/recliner chairs (SWL 318kg/50stone)
- 2 Riser/recliner (SWL 223kg/35stone)
- 5 Wheelchairs (SWL 318kg/50stone)
- 7 Commodes (SWL318kg/50stone)

Mortuary

- 1 Electric Transportation Trolley (SWL 318 kgs/50stone)

Other Items of equipment

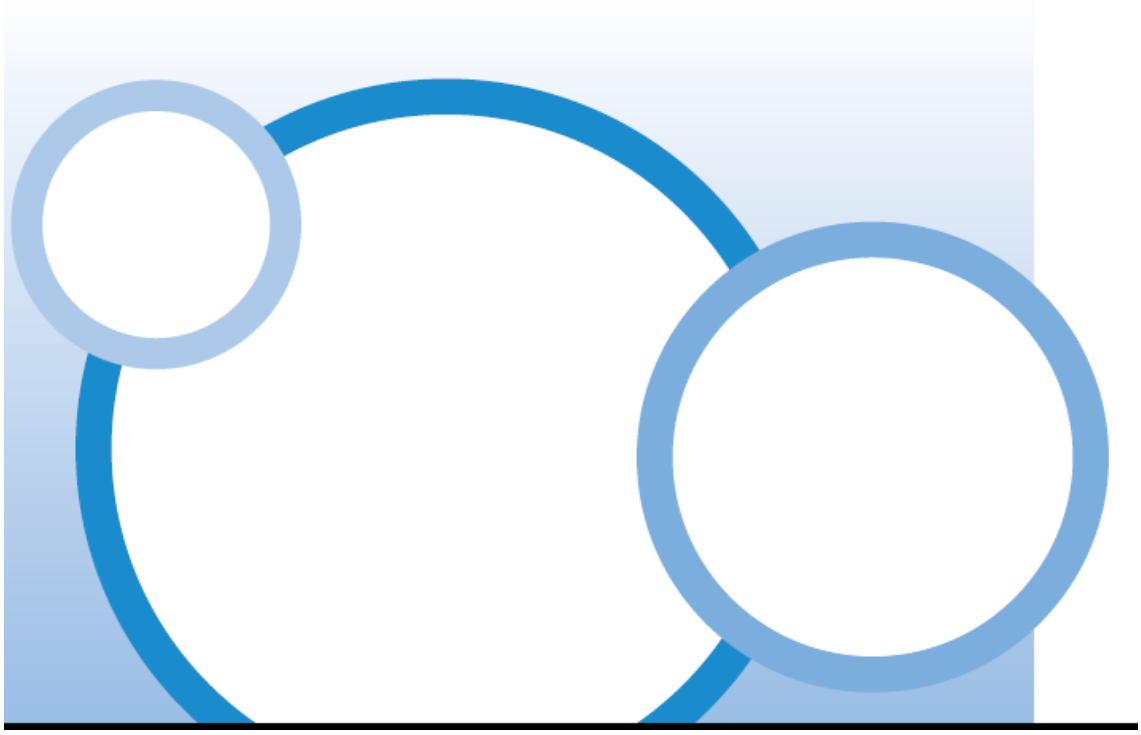
- 1 set of Portable Scales on wheels (SWL 350kg/55stone)
- 6 Electric Bed pushers with capacity to push and pull beds and trolleys capable of pushing 267kgs/42stone
- Walking Aid Frames capable of supporting Bariatric patients
- The Bariatric weighing scales presently stored in A&E to be transferred and stored in Mary Seacole. They will of course still be available to everyone.
- The 2 Gantry hoists to be erected in rooms on Mary Seacole on a semi-permanent basis. This will reduce the Manual Handling risks identified for transporting and erecting the equipment. Any other area requiring this equipment will be required to investigate alternatives e.g. hiring of equipment or use of present free standing hoist which have a safe working load of 200 kg / 32 stone.

- The Trust investigates the funding required for the purchase of additional Bariatric hoisting systems.

APPENDIX 5:

Basildon and Thurrock University Hospitals NHS
NHS Foundation Trust

Why your weight matters during pregnancy and after birth



Most women who are overweight have a straightforward pregnancy and birth and deliver healthy babies. However being overweight does increase the risk of complications to both you and your baby. This information is about the extra care you will be offered during your pregnancy and how you can minimise the risks to you and your baby in this pregnancy and in a future pregnancy. Your healthcare professionals will not judge you for being overweight and will give you all the support that you need.

What is BMI?

BMI is your body mass index which is a measure of your weight in relation to your height. A healthy BMI is above 18.5 and less than 25. A person is considered to be overweight if their BMI is between 25 and 29.9 or obese if they have a BMI of 30 or above. Almost one in five (20%) pregnant women have a BMI of 30 or above at the beginning of their pregnancy.

When should my BMI be calculated?

You should have your BMI calculated at your first antenatal booking appointment. If you have a BMI of 30 or above, your midwife should give you information about the additional risks as well as how these can be minimised and about any additional care you may need. If you have any questions or concerns about your BMI or your care, now is a good time to discuss these.

You may be weighed again later in your pregnancy.

What are the risks of a raised BMI during pregnancy?

Being overweight (with a BMI above 25) increases the risk of complications for pregnant women and their babies. With increasing BMI, the additional risks become gradually more likely, the risks being much higher for women with a BMI of 40 or above. The higher your BMI, the higher the risks.

If your BMI is less than 35 and you have no other problems you may still be able to remain under midwifery led care. However if your BMI is more than 35, the risks to you and your baby are higher and you will need to be under the care of a consultant.

Risks for you associated with a raised BMI include:

Thrombosis

Thrombosis is a blood clot in your legs (venous thrombosis) or in your lungs (pulmonary embolism). Pregnant women have a higher risk of developing blood clots compared with women who are not pregnant. If your BMI is 30 or above, the risk of developing blood clots in your legs is additionally increased. For further information see RCOG Patient Information: Treatment of venous thrombosis during pregnancy and after birth.

Gestational diabetes

Diabetes which is first diagnosed in pregnancy is known as gestational diabetes. If your BMI is 30 or above, you are three times more likely to develop gestational diabetes than women whose BMI is below 30.

High blood pressure and pre-eclampsia

A BMI of 30 or above increases your risk of developing high blood pressure. Preeclampsia is a condition in pregnancy which is associated with high blood pressure (hypertension) and protein in your urine (proteinuria). If you have a BMI of 35 or above at the beginning of your pregnancy, your risk of pre-eclampsia is doubled compared with women who have a BMI under 25. For further information see RCOG patient information: *Pre-eclampsia: what you need to know.*

Risks for your baby associated with a raised BMI include:

- If you have a BMI of 30 or above before pregnancy or in early pregnancy, this can affect the way the baby develops in the uterus (womb). Neural tube defects (problems with the development of the baby's brain and spine) are uncommon. Overall around 1 in 1000 babies are born with neural tube defects in the UK but if your BMI is over 40, your risk is three times that of a woman with a BMI below 30.
- Miscarriage - the overall risk of a miscarriage under 12 weeks is 1 in 5 (20%), but if you have a BMI over 30, your risk increases to 1 in 4 (25%).
- You are more likely to have a baby weighing more than 4 kg (8 lb and 14 ounces). If your BMI is over 30, your risk is doubled from 7 in 100 (7%) to 14 in 100 (14%) compared to women with a BMI of between 20 and 30.
- Stillbirth - the overall risk of stillbirth in the UK is 1 in 200 (0.5%), but if you have a BMI over 30, your risk is doubled to 1 in 100 (1%).
- If you are overweight, your baby will have an increased risk of obesity and diabetes in later life.

What are the risks of a raised BMI during labour and birth?

There is an increased risk of complications during labour and birth, particularly if you have a BMI of more than 40. These include:

- your baby being born early (before 37 weeks)
- a long labour
- the baby's shoulder becoming 'stuck' during birth. For further information see RCOG Patient Information: A difficult birth: what is shoulder dystocia?
- an emergency caesarean birth
- a more difficult operation if you need a caesarean section and a higher risk of complications afterward, for example your wound becoming infected
- anaesthetic complications, especially with general anaesthesia
- heavy bleeding after birth (postpartum haemorrhage) or at the time of caesarean section.

How can the risks during pregnancy be reduced?

By working together with your healthcare professionals, the risks to you and your baby can be reduced by:

Healthy eating

The amount of weight women may gain during pregnancy can vary greatly. A healthy diet will benefit both you and your baby during pregnancy. It will also help you to maintain a healthy weight after you have had your baby. You may be referred to a dietician for specialist advice about healthy eating. You should aim to:

- Base your meals on starchy foods such as potatoes, bread, rice and pasta, choosing wholegrain where possible.
- Watch the portion size of your meals and snacks and how often you eat. Do not 'eat for two'.
- Eat a low-fat diet. Avoid increasing your fat and/or calorie intake. Eat as little as possible of the following: fried food, drinks and confectionary high in added sugars, and other foods high in fat and sugar.
- Eat fibre-rich foods such as oats, beans, lentils, grains, seeds, fruit and vegetables as well as wholegrain bread, brown rice and pasta.
- Eat at least five portions of a variety of fruit and vegetables each day, in place of foods higher in fat and calories.
- Always eat breakfast.

In general you do not need extra calories for the first two-thirds of pregnancy and it is only in the last 12 weeks that women need an extra 200 kilocalories a day.

Trying to lose weight by dieting during pregnancy is not recommended even if you are obese, as it may harm the health of your unborn baby. However, by making healthy changes to your diet you may not gain any weight during pregnancy and you may even lose a small amount. This is not harmful.

Exercise

Your midwife should ask you about how physically active you are. You may be given information and advice about being physically active as this will be a benefit to your unborn child.

- Make activities such as walking, cycling, swimming, low impact aerobics and gardening part of everyday life and build activity into daily life by taking the stairs instead of the lift or going for a walk at lunchtime.
- Minimise sedentary activities, such as sitting for long periods watching television or at a computer.
- Physical activity will not harm you or your unborn baby. However, if you have not exercised routinely you should begin with no more than 15 minutes of continuous exercise, three times per week, increasing gradually to 30 minute sessions every day. A good guide that you are not overdoing it is that you should still be able to have a conversation while exercising.

An increased dose of folic acid

Folic acid helps to reduce the risks of your baby having a neural tube defect. If your BMI is 30 or above you should take a daily dose of 5 mg of folic acid. This is a higher dose than the usual pregnancy dose, and it needs to be prescribed by a doctor. Ideally you should start taking this a month before you conceive and continue to take it until you reach your 13th week of pregnancy. However, if you have not started taking it early, there is still a benefit from taking it when you realise you are pregnant.

Vitamin D supplements

All pregnant women are advised to take a daily dose of 10 micrograms of vitamin D supplements. However, this is particularly important if you are obese as you are at increased risk of vitamin D deficiency.

Venous thrombosis

Your risk for thrombosis (blood clots in your legs or lungs) should be assessed at your first antenatal appointment and monitored during your pregnancy. You may need to have injections of low molecular weight heparin to reduce your risk of blood clots. This is safe to take during pregnancy. For more information, see RCOG Patient Information: Reducing the risk of venous thrombosis in pregnancy and after birth.

Gestational diabetes

You should be tested for gestational diabetes between 24 and 28 weeks. If your BMI is more than 40 you may also have the test earlier in pregnancy. If the test indicates you have gestational diabetes, you will be referred to a specialist to discuss this further.

Monitoring for pre-eclampsia

Your blood pressure will be monitored at each of your appointments. Your risk of pre-eclampsia may be additionally increased if you are over 40 years old, if you had pre-eclampsia in a previous pregnancy or if your blood pressure is high before pregnancy.

If you have these or other risk factors, you may need to attend hospital for your appointments and your doctor may recommend a low dose of aspirin to reduce the risk of developing high blood pressure.

Additional ultrasound scanning

Having a BMI of more than 30 can affect the way the baby develops in the uterus (womb) so you may need additional ultrasound scans. You may also need further scans because it can be more difficult to check that your baby is growing properly or feel which way round your baby is.

Planning for labour and birth

Because of these possible complications, you should have a discussion with your obstetrician and/or midwife about the safest way and place for you to give birth. If you have a BMI of 40 or more, arrangements should be made for you to see an anaesthetist to discuss a specific plan for pain relief during labour and birth.

These discussions may include:

Where you give birth

There is an increased chance of your baby needing to be cared for in a special care baby unit (SCBU) after birth. If your BMI is 35 or above, you will be recommended to give birth in a consultant-led obstetric unit with a SCBU. If your BMI is between 30 and 35, your healthcare professional will discuss with you the safest place for you to give birth depending on your specific health needs.

What happens in early labour

If your BMI is over 40, it may be more difficult for your doctors to insert a cannula (a fine plastic tube which is inserted into the vein to allow drugs and/or fluid to be given directly into your blood stream) into your arm. Your doctors will usually insert this early in labour in case it is needed in an emergency situation.

Pain relief

All types of pain relief are available to you. However, having an epidural (a regional anaesthetic injection given into the space around the nerves in your back to numb the lower body) can be more difficult if you have a BMI over 30. Your anaesthetist should have a discussion with you about the anticipated difficulties. He or she may recommend that you have an epidural early in the course of labour.

Delivering the placenta (afterbirth)

An injection is normally recommended to help with the delivery of the placenta (afterbirth) to reduce the risk of postpartum haemorrhage (heavy bleeding).

What happens after birth?

After birth some of your risks continue. By working together with your healthcare professionals, you can minimise the risks in the following ways:

Monitoring blood pressure

You are at increased risk of high blood pressure for a few weeks after the birth of your baby and this will be monitored.

Prevention of thrombosis

You are at increased risk of thrombosis for a few weeks after the birth of your baby. Your risk will be re-assessed. To reduce the risk of a blood clot developing after your baby is born:

- Try to be active – avoid sitting still for long periods.
- Wear special compression stockings, if you have been advised you need them.
- If you have a BMI of 40 or above, you should have low molecular weight heparin treatment for at least a week after the birth of your baby - regardless of whether you deliver vaginally or by caesarean section. It may be necessary to continue taking this for 6 weeks.

Test for diabetes

For many women who have had gestational diabetes, blood sugar levels return to normal after birth and medication is no longer required, but you should be re-tested for diabetes about 6 weeks after giving birth. Your risk of developing diabetes in later years is increased if you have had gestational diabetes. You should be tested for diabetes by your GP once a year.

Information and support about breastfeeding

Breastfeeding is best for your baby. It is possible to breastfeed successfully if you have a BMI of 30 or above. Extra help should be available if you need it.

Vitamin D supplements

You should continue to take vitamin D supplements whilst you are breastfeeding.

Healthy eating and exercise

Continue to follow the advice on healthy eating and exercise. If you want to lose weight once you have had your baby, you can discuss this with your GP.

Planning for a future pregnancy

Reducing your weight to reach the healthy range

If you have a BMI of 30 or above, whether you are planning your first pregnancy or are between pregnancies, it is advisable to lose weight. If you lose weight, you:

- increase your ability to conceive and have a healthy pregnancy
- reduce the additional risks to you and your baby during pregnancy
- reduce your risk of developing diabetes in further pregnancies and in later life.

If you have fertility problems it is also advisable to lose weight, since having a BMI of more than 30 may mean you would not be eligible for fertility treatments such as IVF.

Your healthcare professional should offer you a structured weight loss programme.You should aim to lose weight gradually (up to about 1 kg or about 1 to 2 lbs a week). Crash dieting is not good for your health. Remember even a small weight loss can give you significant benefits.

You may be offered a referral to a dietician or an appropriately trained health professional. If you are not yet ready to lose weight, you should be given contact details for support for when you are ready.

An increased dose of folic acid

If you have a BMI of 30 or above, remember to start taking 5 mg of folic acid at least a month before you start trying to conceive. Continue taking this until you reach your 13th week of pregnancy.

Sources and acknowledgements

This information has been developed by the RCOG Patient Information Committee. It is based on the RCOG guideline Management of women with obesity in pregnancy (March 2010) and NICE guideline Dietary interventions and physical activity interventions for weight management before, during and after pregnancy (July 2010). This information will also be reviewed, and updated if necessary, once the guideline has been reviewed. The Guideline contains a full list of the sources of evidence we have used. You can find it online at:

http://www.rcog.org.uk/files/rcog-corp/CMACERCOGJointGuidelineManagementWomenObesityPregnancya.pdf.

The RCOG produces guidelines as an educational aid to good clinical practice. They present recognised methods and techniques of clinical practice, based on published evidence, for consideration by obstetricians and gynaecologists and other relevant health professionals. The ultimate judgement regarding a particular clinical procedure or treatment plan must be made by the doctor or other attendant in the light of clinical data presented by the patient and the diagnostic and treatment options available.

This means that RCOG Guidelines are unlike protocols or guidelines issued by employers, as they are not intended to be prescriptive directions defining a single course of management. Departure from the local prescriptive protocols or guidelines should be fully documented in the patient's case notes at the time the relevant decision is taken.

This information has been reviewed before publication by women attending clinics in Camberley, London and Aylesbury.

A glossary of all medical terms is available on the RCOG website at:

http://www.rcog.org.uk/womens-health/patient-information/medical-terms-explained.

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This booklet can be provided in a different format (e.g. large print or audio cassette) on request.

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The Trust will not tolerate aggression, intimidation or violence directed towards its staff.

This is a smokefree Trust. Smoking is not allowed in any of our hospital buildings or grounds.