1. Introduction

Obesity is an independent risk factor for various adverse outcomes in mother and baby. The current epidemic of obesity is of growing concern with rising trends of obesity in the population. Women should be encouraged to seek pre-conceptual advice.

Obesity in pregnancy is usually defined as a Body Mass Index (BMI) of 30 kg/m2 or more at the first antenatal consultation.

2. Antenatal

- All pregnant women must have an accurate measurement of height and weight taken at their booking visit (preferably, before 12 weeks). This should be carried out by healthcare professional using appropriate equipment. The measurements of both height and weight must be clearly recorded in the patient notes and in the electronic booking system together with a calculation of the body mass index (BMI). Do not rely on self-reported measures of height and weight.
- Use BMI percentile charts for pregnant women under 18 years, as BMI measure alone does not take growth into account and is inappropriate for this age group.
- Women with a BMI 30+ should be advised to consider taking daily Vit D supplements. (Hyperlink to NICE AN quick reference guideline 2008)
- Women with BMI of 30+ should consider high dose folic acid (5mg daily) supplementation 1 month prior to conception and for the duration of the 1st trimester.
- BMI of 35 or more is a moderate risk factor for pre-eclampsia. In the presence of any other risk factors (see appendix 3), Aspirin 75mg OD should be advised from 12 weeks to birth.
- Women with a BMI 30 – 35 should have an antenatal consultation by the community midwife to discuss possible intrapartum complications. The discussion must be clearly documented within the patient records (see Appendix 1- Care Plan for BMI>30). If the midwife and GP are satisfied with the progress of the woman they may continue to provide shared care without involvement of an obstetric consultant. A home birth is not contraindicated. However, if the woman chooses to deliver at home a documented discussion of risks and benefits of home birth versus obstetric unit must take place.
- Women with a BMI of 35 or above should be under the care of a consultant obstetrician. In addition, all women with a BMI of 35 will be referred to a specialist midwife in order to support the prevention of excessive weight gain in pregnancy. All women with a BMI of 35 must be given the opportunity to discuss the antenatal, Intrapartum and postnatal risks associated with obesity, with an obstetrician. This discussion must be clearly documented in the patient records.
notes. Women with comorbidities will be offered a consultation with an obstetrician in Antenatal Clinic. In the absence of comorbidities, women will be invited to attend a group talk where they will have the opportunity for a one to one discussion with an obstetrician.

- Women with a BMI of 40-44 with no other risk factors will be offered a group talk with the opportunity to have a one to one discussion with an anaesthetist. For women with a BMI of 40-44 with other anaesthetic risk factors or women with a BMI of 45+, an anaesthetic management plan for labour and delivery should be discussed and documented in the patients notes.
- Information on weight management and lifestyle in pregnancy must be provided. In addition, discussion of risks, pregnancy complications and morbidity in relation to raised BMI should be discussed and documented to confirm this has occurred within the patient notes.
- Pregnant women with a BMI >30 should be offered a referral to the dietician.
- Due to the increased risks of diabetes for women with a BMI >30, a 28/40 glucose tolerance test (GTT) should be arranged via DAW.
- For women with a raised BMI, assessment and availability of suitable equipment in all environments must be made, i.e. correct size BP cuff within GP surgery, community and hospital environment.
- Women with a booking BMI >40 should have a documented risk assessment in the third trimester of pregnancy by an appropriately qualified professional to determine manual handling requirements for childbirth and consider tissue viability issues.
- Following risk assessment, for women who require specialist equipment, an individualised management plan must be recorded in the patient notes. Organise the availability of appropriate equipment in advance of admission to hospital where possible. Please refer to Trust Manual Handling policy and Manual Handling Resource folder (paper copy in all clinical areas) for information and guidelines on where to obtain specialist equipment. Arrangements made must be clearly documented in the patient record.
- On admission to hospital, a Patient Handling Risk Assessment Chart must be completed and a revised individualised management plan must be recorded in the patient records, particularly where specialised equipment is required.

Please refer to Trust Manual Handling Policy on how to order required equipment and make sure it is available when necessary.

3. Intrapartum

- All women with a booking BMI of 30 or above should be weighed on admission to Triage
- Women with a BMI of 35 or more should be advised not to have a water birth.
- Consider presentation USS on admission for labouring women and before IOL
- On call anaesthetist must be informed of all women with a BMI >40 is admitted to CDS (antenatal, intrapartum and postnatal admissions) to enable early review. This communication must be documented within the patient notes and recorded on the white board.
- For women with a BMI of 40 or above: If delivery in theatre is anticipated:
  - inform theatre staff as soon as possible so arrangements can be made to acquire specialist equipment, correct sized operating table and arrange for additional staffing.
  - Inform consultant anaesthetist.
  - An obstetrician of ST 6, or above should be present.
  - Consider calling a neonatologist to the delivery.
- All women with a BMI >40 must have a large bore (16 gauge) cannula sited early in labour together with a FBC and Group and Save sent to lab.
- Administer oral Ranitidine 150 mg / 6 hourly, in labour. Consumption of food should be avoided.
- In women with a BMI >40 and above, a fetal scalp electrode should be applied to record the fetal heart rate if unable to obtain a good external CTG trace.
- Blood pressure readings must be recorded using an appropriately sized cuff.
- All staff must follow the Trust Manual Handling policy
- A maternity ‘waterlow’ score and tissue viability should be measured and recorded hourly in labour.
- 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

4. Postnatal

- Consider use of HDU facilities on CDS post delivery due to risks of respiratory and cardiovascular complications.
- Follow the Obstetric Risk Assessment for venous thromboembolism (VTE).
- Encourage early mobilization.
- If immobile as a result of caesarean section or epidural following vaginal delivery ensure anti embolism stockings and clexane are used.
- Clexane should be considered for women with a BMI of 30-39 who have additional risk factors for developing a VTE.
- Clexane is indicated for all women with a BMI of 40 or above, regardless of their mode of delivery.
- Clexane should be prescribed for as per thromboprophylaxis AN guideline number 38
- Clexane dosage should be calculated by weight (see VTE postpartum form).
- Obesity is associated with poorer levels of breastfeeding initiation and maintenance. Therefore women with a BMI of 30 and above may need additional support with breastfeeding.
- Refer to physiotherapists, as indicated.
- Women with a booking BMI >30 should continue to receive nutritional advice following childbirth from an appropriately trained professional, with a view to weight reduction.

5. Recordkeeping

It is expected that every episode of care be recorded clearly, in chronological order and as contemporaneously as possible by all healthcare professionals as per Hospital Trust Policy. This is in keeping with standards set by professional colleges, i.e. NMC and RCOG.

All entries must have the date and time together with signature and printed name.
Appendix 1

Care of Women with a BMI of $\geq 30$

BMI 30-34

- Comorbidities?
  - No: Midwifery Led Care
  - Yes: Consultant Led Care

BMI $\geq 35$

- Comorbidities?
  - No: Specialist M/W at 12/40 Invite to join ‘Keeping Well in Pregnancy’ programme.
  - Yes: ANC appt. 20/40

GTT at 28/40
Weight at 36/40

CMW +/- ‘KWIP’

GTT at 28/40
USS at 34/40
Weight 36/40

Joint Obstetric/Anaesthetic Talk

DNA?

ANC appt.
# Antenatal Care Pathway Checklist

## Raised BMI > 30

Please attach securely to patient notes at Booking Appointment.

Please **tick, sign and date** to evidence when an action is complete.

<table>
<thead>
<tr>
<th>Gestation</th>
<th>Plan</th>
<th>Sign/Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>By 12/40</strong></td>
<td><strong>Booking Appointment</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Calculate BMI accurately and record in notes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide RCOG patient information</td>
<td></td>
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<tr>
<td></td>
<td>Healthy Eating Leaflet</td>
<td></td>
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<tr>
<td></td>
<td>Offer Dietetic Referral</td>
<td></td>
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<tr>
<td></td>
<td>Accepted/Declined</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anaesthetic referral for BMI 40-44 with other risk factors or BMI ≥45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commence 5mg Folic Acid +10mcg Vitamin D daily</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Check criteria for aspirin 75mg OD for the duration of the pregnancy.</td>
<td></td>
</tr>
<tr>
<td><strong>BMI 30-34</strong></td>
<td><strong>BMI ≥ 35</strong></td>
<td></td>
</tr>
<tr>
<td>Midwife /GP Antenatal Care</td>
<td>Refer for Consultant Led Care</td>
<td></td>
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<tr>
<td></td>
<td>Advise hospital birth</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduce ‘Keeping Well in Pregnancy’ group antenatal programme</td>
<td></td>
</tr>
<tr>
<td><strong>12-14/40</strong></td>
<td><strong>Specialist Midwifery Appointment</strong></td>
<td></td>
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<tr>
<td></td>
<td>Discuss antenatal, intrapartum and postnatal risks associated with raised BMI in pregnancy.</td>
<td></td>
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<tr>
<td></td>
<td>Individualised plan to support the prevention of excessive weight gain in pregnancy.</td>
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<tr>
<td></td>
<td>If BMI ≥ 45 notify Bariatric Team</td>
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<tr>
<td></td>
<td>Offer ‘Keeping Well in Pregnancy’</td>
<td></td>
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<tr>
<td></td>
<td>If DNA, for 20/40 ANC appt.</td>
<td></td>
</tr>
<tr>
<td><strong>20/40</strong></td>
<td>Anomaly scan</td>
<td>Anomaly Scan</td>
</tr>
<tr>
<td></td>
<td>Consultant clinic if indicated</td>
<td></td>
</tr>
<tr>
<td><strong>26-28/40</strong></td>
<td>Arrange GTT</td>
<td>Arrange GTT</td>
</tr>
<tr>
<td><strong>28-36/40</strong></td>
<td>Joint Obstetric and Anaesthetic Talk</td>
<td>Intrapartum risks and potential management of complications given by Dr and Dr</td>
</tr>
<tr>
<td></td>
<td>If DNA for ANC appt. if not previously seen in ANC</td>
<td></td>
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<tr>
<td></td>
<td>Third trimester wt.</td>
<td>Third trimester wt.</td>
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<td>---------------------</td>
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<tr>
<td>36/40</td>
<td>Commence purple patient handling risk assessment if patient presents with mobility difficulties and document in green notes under ‘special features’</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 3

Criteria for Aspirin to reduce the risk of pre-eclampsia (taken from NICE CG 107 ‘Hypertension in pregnancy: diagnosis and management’

Advise women at high risk of pre-eclampsia to take 75 mg of aspirin daily from 12 weeks until the birth of the baby. Women at high risk are those with any of the following:

- hypertensive disease during a previous pregnancy
- chronic kidney disease
- autoimmune disease such as systemic lupus erythematosis or antiphospholipid syndrome
- type 1 or type 2 diabetes
- chronic hypertension.

1.1.2.2 Advise women with more than one moderate risk factor for pre-eclampsia to take 75 mg of aspirin daily from 12 weeks until the birth of the baby. Factors indicating moderate risk are:

- first pregnancy
- age 40 years or older
- pregnancy interval of more than 10 years
- body mass index (BMI) of 35 kg/m² or more at first visit
- family history of pre-eclampsia
- multiple pregnancy.
Monitoring and Audit

Auditable standards:
Accurate BMI recorded in notes
BMI > 35 for CLC

BMI >30 Triage admission weight. Suitability of available equipment in all care settings
Documentation of individual management plans in the health records of women requiring
specialised equipment.

Please refer to audit tool, location: ‘Maternity on cl2-file11’, Guidelines

Reports to:
Clinical Effectiveness Committee – responsible for action plan and implementation of
recommendations from audit
Clinical Governance & Risk Management Committee

Frequency of audit:
Annual

Responsible person:
Public Health Midwife

Cross references
Antenatal guideline 44 – Guideline development within the maternity services
TRW/OCC/POL/280/6 Manual Handling policy
Clinical Records Keeping Policy – Derriford Hospital
Antenatal guideline No. 38 Thromboprophylaxis and management of VTE
Management of VTE

References

Mothers’ Lives: reviewing maternal deaths to make motherhood safer – 2003-2005. The
Seventh Report on Confidential Enquiries into Maternal deaths in the United Kingdom. London:
CEMACH

RCOG, London.

Richens Y and Lavender T (2010) (eds.) Care for Pregnant Women who are Obese MA
Healthcare, London.


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Version  6
Changes  Homebirth may be considered up to BMI 35 (changed from BMI 30)
Folic acid and Vit D supplementation added
Date Ratified  Jan 16  Valid Until Date  Jan 19