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# Management of Obesity During Pregnancy Guideline

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Brief Summary of Document:	To provide safe care and management of women with obesity during pregnancy.
Scope	All pregnant women with a booking BMI of $>30\text{kg/m}^2$ 'The term "woman/women" in the context of this document is used as a biologically based term and is not intended to exclude trans and non-binary people who do not identify as women.'

To be read in conjunction with:	<ul style="list-style-type: none"><li>• 273 - Moving and Handling Policy</li><li>• 646 Induction of Labour Guideline</li><li>• Intrapartum Continuous Fetal Monitoring Guideline</li><li>• Thromboprophylaxis Guideline</li><li>• All Wales Midwife-led Care Guideline</li></ul>
Patient Information:	Not applicable







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Reviews and updates		
Version no:	Summary of Amendments:	Date Approved:
1	New guideline	14.9.2017
2	Revised	23.4.2019

### Glossary of terms

Term	Definition
BMI	Body mass index
CLC	Consultant-led care
CLU	Consultant-led unit
CTG	Cardiotocograph
EFM	Electronic fetal monitoring
FHR	Fetal heart rate
IOL	Induction of Labour
SFH	Symphysis fundal height
VBAC	Vaginal birth after caesarean
VTE	Venous thromboembolism

Keywords	Obesity, BMI, bariatric, pre-pregnancy, antenatal, intrapartum, postnatal
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## 1. Aim of Guideline

The aim of the guideline is to outline the management of obesity in pregnancy in order to remove and reduce maternal and fetal morbidity / mortality.

## 2. Objectives

The aim of the guideline will be achieved by identifying women at increased risk as a result of morbid obesity to ensure:

- adequate antenatal surveillance for possible development of co-morbidity
- an obstetric anaesthetic review
- a consultation with a dietician
- the availability of suitable bariatric equipment

## 3. Scope

All pregnant women with a **BMI of >30kg/m<sup>2</sup>**

## 4. Introduction

Obesity is defined by the World Health Organisation (WHO) as a body mass index (BMI) of 30kg/m<sup>2</sup> or above. Women who are at greatest risk of complications during pregnancy are those with a BMI of 40 kg/m<sup>2</sup>, defined as having Morbid / Level III obesity.

Morbidly obese pregnant women are at greater risk of pre-eclampsia, gestational diabetes, antepartum stillbirth, thromboembolic disease, caesarean section, instrumental delivery, shoulder dystocia, meconium aspiration, fetal distress, early neonatal death and large for gestational age babies.

## 5. Management

### 5.1 Pre-pregnancy Care

- Primary care services should ensure that all women of childbearing age have the opportunity to optimise their weight before pregnancy.
- Advice on weight and lifestyle should be given during preconception counselling or contraceptive consultations.
- Weight and BMI should be measured to encourage women to optimise their weight before pregnancy.
- Women with a BMI 30 kg/m<sup>2</sup> or greater wishing to become pregnant should be advised to take 5 mg folic acid supplementation daily, starting at least 1 month before conception and continuing during the first trimester of pregnancy
- Women of childbearing age with a BMI 30 kg/m<sup>2</sup> or greater should receive information and advice about the risks of obesity during pregnancy and childbirth and be supported to lose weight before conception and between pregnancies.
- Women should be informed that weight loss between pregnancies reduces the risk of stillbirth, hypertensive complications and fetal macrosomia. Weight loss increases the chances of successful vaginal birth after caesarean (VBAC) section.



## 5.2 Antenatal Care: General Principles

- Women with previous bariatric surgery have high-risk pregnancies and should have consultant-led antenatal care.
- Accurate assessment of body mass index (BMI) is essential and should be performed at first contact.
- Maternal weight and height should be measured using appropriate equipment and recorded in the All Wales Handheld Record, the Health Board Booking Referral form Welsh PAS.
- If unable to calculate a BMI due to equipment weight capacity i.e. the woman is heavier than 150 Kgs, then access to bariatric weighing scales can be pre- arranged via the Manual Handling Advisor.

### Self-reported weight is not acceptable

- Obese women are at high risk of vitamin D deficiency. The evidence that routine vitamin D should be given to improve maternal and neonatal outcomes is uncertain.
- Dietetic advice by an appropriately trained professional should be provided early in the pregnancy.
- Women with previous bariatric surgery should have nutritional surveillance and screening during pregnancy.
- Weight loss drugs are not recommended for use in pregnancy.
- VTE risk scoring must be performed at the Booking visit
- For women with obesity in pregnancy, consideration should be given to reweighing women during the third trimester to allow appropriate plans to be made for equipment and personnel required during labour and birth.
- Women with a booking BMI 30 kg/m<sup>2</sup> or greater should receive appropriate specialist advice and support antenatally regarding the benefits, initiation and maintenance of breastfeeding

### 5.2.1 BMI >30

- Women with BMI 30 kg/m<sup>2</sup> or greater are at increased risk of mental health problems and should therefore be screened for these in pregnancy
- All women should have BMI recalculated in the third trimester.
- Women with a BMI of >30 should be referred for an oral glucose tolerance test between 26-28 weeks gestation.
- VTE risk scoring must be performed at the Booking visit and recalculated on any antenatal inpatient admission
- BP must be measured with an appropriately sized cuff and this should be documented.
- Serial measurement of symphysis fundal height (SFH) is recommended at each antenatal appointment from 24 weeks of gestation.

### 5.2.2 BMI >35

- Women with more than one moderate risk factor (BMI of 35 kg/m<sup>2</sup> or greater, first pregnancy, maternal age of more than 40 years, family history of pre-eclampsia and multiple pregnancy) may benefit from taking 150 mg aspirin daily from 12 weeks of gestation until birth of the baby
- Women with a BMI >35 should be offered referral to a dietician.



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- Women with a BMI >35 should be referred to the Consultant for multidisciplinary “shared care” and advised to deliver in hospital.
- Women with a BMI greater than 35 kg/m<sup>2</sup> are more likely to have inaccurate SFH measurements and should be referred for serial assessment of fetal size using ultrasound.

### 5.2.3 BMI >40

- Women with a booking BMI 40 kg/m<sup>2</sup> require a handling risk assessment carried in the third trimester of pregnancy to determine any requirements for labour and birth.
- Folic acid supplement of 5mg should be advised for the 1st trimester.
- Women with a BMI >40 or weight of >120kgs should be referred for an obstetric anaesthetic review by 36 weeks gestation.

### 5.3 Risk Assessments

- All acute maternity wards should ensure that women are risk assessed on admission and placed in an environment where the facilities ensure adequate space.
- Staff should ensure appropriate equipment is available to care for the woman. This should be documented in the All Wales Maternity Handheld Record, Antenatal Inpatient Record, the Labour and Delivery and Postnatal Care Record.

#### 5.3.1 Manual Handling Risk Assessment

- Women with a BMI over 35kg/m<sup>2</sup> will require a manual handling assessment and consideration of tissue viability.
- The results should then be documented in the All Wales Maternity Handheld Record as well as any inpatient record.
- Women should be weighed to determine manual handling requirements for childbirth and consideration of tissue viability issues.
- A Health Board Moving and Handling Risk Assessment should be completed by the named midwife/Manual Handling Advisor placed in the All Wales Maternity Handheld Record Handheld notes

#### 5.3.2 Hospital Equipment and Facilities

A departmental risk assessment should be conducted to determine the availability of bariatric equipment with appropriate safe working loads and widths. If appropriate equipment is not available an action plan should be formatted and implemented.

The risk assessment should include the following:

- Delivery beds and ward beds
- Wheelchairs
- Operating tables and trolleys
- Chairs with/without arms
- Ultrasound scan couches
- Weighing scales
- Large blood pressure cuffs
- Long epidural and spinal needles
- Lifting equipment
- Theatre gowns
- Toilets
- Circulation space



- Accessibility

### 5.4 Intrapartum Care

- Women with a BMI 40 kg/m<sup>2</sup> or greater should have venous access established early in labour and consideration should be given to the siting of a second cannula
- In the absence of good-quality evidence intrapartum fetal monitoring for obese women in labour should be provided.
- Consider use of a fetal scalp electrode if continuous monitoring is required and there is difficulty maintaining contact with the abdominal transducer.
- Active management of the third stage should be recommended to reduce the risk of postpartum haemorrhage (PPH)
  - Inform obstetric registrar of any woman in labour with a BMI of >35, or whose body habitus raises concern regarding potential for obstruction during the birth process.
  - Inform obstetric consultant on call of any women in labour with a BMI ≥40.
  - Inform theatre staff of any patient with weight of ≥120kg (imminent delivery).
- Ensure that the anaesthetic team are informed of any woman in labour with a BMI of >35
- Ensure that the anaesthetic team are informed when any woman with a BMI >40 is admitted as an inpatient as they are likely to require senior anaesthetic input.

#### 5.4.1 Place of Birth

- Women who are multiparous and **otherwise low risk** can be offered choice of setting for planning their birth in midwifery-led units (MLUs).
- There must be a documented clear referral pathway for early recourse to consultant-led units (CLUs) if complications arise.
- Class I and II maternal obesity is not a reason in itself for advising birth within a CLU, but indicates that further consideration of birth setting may be required.
- The additional intrapartum risks of maternal obesity and the additional care that can be provided in a CLU should be discussed with the woman so that she can make an informed choice about planned place of birth

#### 5.4.2 Induction of Labour (IOL)

- Elective induction of labour at term in obese women may reduce the chance of caesarean birth without increasing the risk of adverse outcomes.
- Where macrosomia is suspected, induction of labour may be considered. Parents should have a discussion about the options of induction of labour and expectant management.

#### 5.4.3 Caesarean Section

- The decision for a woman with maternal obesity to give birth by planned caesarean section should involve a multidisciplinary approach, taking into consideration the individual woman's comorbidities, antenatal complications and wishes.  
Women with a booking BMI 30 kg/m<sup>2</sup> or greater should have an individualised decision for VBAC recorded following informed discussion and consideration of all relevant clinical factors.
- If Caesarean section is required consider whether additional assistants are required to ensure safer patient handling.
- Ensure that the dignity of the patient is respected at all times.
- Equipment must be requested promptly to minimise delay.



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- Women undergoing caesarean section who have more than 2 cm subcutaneous fat should have suturing of the subcutaneous tissue space in order to reduce the risk of wound infection and wound separation.
- Women with class 1 obesity or greater having a caesarean section are at increased risk of wound infection and should receive prophylactic antibiotics at the time of surgery
- There is a lack of good-quality evidence to recommend the routine use of negative pressure dressing therapy, barrier retractors and insertion of subcutaneous drains to reduce the risk of wound infection in obese women requiring caesarean sections.

### 5.5 Postnatal Care

- Obesity poses a greater risk of venous and pulmonary thromboembolism.
- All patients with a BMI  $\geq 40$  should receive prophylactic LMWH according to their risk scoring regardless of delivery mode.
- If LSCS / GA are performed use pneumatic stockings 'TEDs' whilst mobility is reduced.
- Ensure early mobilisation and adequate hydration.
- Pressure area assessment should be completed.
- Women with a booking BMI 30 kg/m<sup>2</sup> or greater should receive appropriate specialist advice postnatally regarding the benefits, initiation and maintenance of breastfeeding.
- Advice should be given to see the GP regarding weight reduction and lifestyle.
- Women who have been diagnosed with gestational diabetes should have postnatal follow-up

### 7. Record Keeping

- All documentation and risk assessments must be recorded and filed in the All Wales Maternity Handheld Record and ancillary Health Board documentation.
- Booking BMI, repeat assessment of BMI at 36 weeks gestation and care plans to be inputted onto Welsh PAS.

### 8. Communication

- All pregnant women with a booking BMI 30 kg/m<sup>2</sup> or greater should be provided with accurate and accessible information about the risks associated with obesity in pregnancy and how they may be minimised. Women should be given the opportunity to discuss this information
- **Maternal wishes and concerns should be discussed and documented**
- The woman should be included in the decision making process regarding her care.



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## 9. Auditable Standards

- BMI recorded at booking, documented in the All Wales Maternity Handheld Record and recorded on Welsh PAS.
- BMI recording repeated at 36 weeks gestation, documented in the All Wales Maternity Handheld Record and recorded on Welsh PAS.

## 10. References

- <https://www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg72/>
- <https://www.rcog.org.uk/globalassets/documents/guidelines/gtg-37a.pdf>
- <https://pathways.nice.org.uk/pathways/antenatal-care-for-uncomplicated-pregnancies>
- All Wales Midwife-led Care Guidelines (5<sup>th</sup> Edition)
- RCOG Care of Women with Obesity in Pregnancy. Green top Guideline No.72
- NICE National Institute for Health and Care Excellence (NICE) Clinical guideline (CG) 189.
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