Management of Women with Body Mass Index (BMI) of above 30kg/m2

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Contents

Purpose & Aim

The purpose of this guideline is to provide information for midwives and other health professionals when caring for pregnant women with a Body Mass Index (BMI)>30kg/m^2 regardless of whether they are Consultant Led Care (CLC) or Midwife Led Care (MLC). It should give clear guidance for women who have no other risk factors and can remain MLC but still need support to maintain their weight whilst also supporting CLC for those women who have additional risk factors to enable them to make appropriate birth choices.

The aim is to help pregnant women with a raised BMI maintain a healthy weight by adopting a balanced diet and being physically active and also to support them achieve birth in an environment that suits their needs and wishes.

Scope

These guidelines are intended to support measures for women with a raised BMI, encouraging weight maintenance in pregnancy whilst understanding the importance of exercise in pregnancy. The various pathways will support women with no other risk factors remain Midwife Led Care (MLC) and encourage birth in low risk settings where appropriate. They also act as a guide for clinical care to ensure women are directed to the most appropriate professional to oversee and plan their care.

This guideline does not cover:

- Women who are underweight or a BMI <18.5
- Women who have been diagnosed with or who are receiving treatment for an existing condition such as Type 1 or Type 2 Diabetes.

Background

Obesity in pregnancy has increased and around 1 in 5 women attending antenatal care are now classified as obese.[1] Pregnancy has been identified as a significant factor in development of obesity in women and those with excessive weight gain during pregnancy retain more weight at follow-up [2]. Excess weight gain during pregnancy is also associated with child obesity at 3 years and in adolescence.3, [4]. This suggests there is potential for influencing the mother's lifestyle and of having an impact on the child's weight. Obesity but most importantly increase weight gain during pregnancy, has been linked to higher risk of complications during pregnancy or birth[5] including; pregnancy-induced hypertension, pre-term delivery, venous thromboembolism and caesarean section 5, 6, 7. There are also increased risks for the child including poor Apgar scores and fetal and neo-natal death 5, 8. There is evidence that antenatal care costs may be 5–16 fold higher in overweight and obese women compared with that of normal weight women 9.

Evidence from MBRRACE-UK 2018 [10] report showed that 57% of the women who died and for whom the BMI was known were either overweight or obese. In terms of the impact of maternal weight on specific causes of death, it remains a significant associated risk factor for mortality.

Associated risks in pregnancy include:

- Spontaneous first trimester and recurrent miscarriages
- Pre-eclampsia
- Gestational diabetes
- Thromboembolism
- Dysfunctional labour
- Higher chance of Caesarean section
- Post-caesarean wound infection

- Postpartum haemorrhage
- Lower breastfeeding rates
- Cardiac disease
- Maternal death or severe morbidity

For the baby increased risks include:

- Prematurity and associated risks of pre-term birth
- Congenital abnormalities
- Stillbirth and neonatal death
- Increased risk of being overweight in infancy and childhood

Birthplace Study 2013 [11]

The Birthplace study published on 2013 concluded that in straightforward 'low-risk' pregnancies, obese women who have previously had at least one baby are less likely to experience obstetric complications during labour and birth than 'low-risk' women with their first pregnancy.
The key findings of this study were:

- Obesity is associated with increased risks of intrapartum outcomes requiring obstetric or neonatal care, especially where weight gain is significant in pregnancy.
- Otherwise healthy obese women have an increased risk of augmentation, intrapartum Caesarean section and some adverse maternal outcomes, but when interventions and adverse outcomes are considered together, the size of the increased risk is modest (less than 15% for women with a BMI of >35kg/m2 compared with women of normal weight).
- Multiparous obese women who do not have additional risk factors are at lower risk of requiring obstetric care during labour and birth than 'low risk' women of normal weight having a first baby.
- Risks to the baby (admission to a neonatal unit or stillbirth/early neonatal death) follow a similar pattern, with lower risks for babies of otherwise healthy multiparous obese women compared with babies of 'low risk' first time mothers of normal weight.

The Birthplace study reviewed 17,230 women without medical or obstetric risk factors other than obesity, focused on the impact of the BMI on birth interventions and complications resulting in the need for an obstetric unit birth.

The study found that while the risk of interventions requiring obstetric care tended to increase with BMI category, parity was much more important predictor of absolute risk.

The researcher stated 'interestingly, our results showed that obese women who have previously had a baby and who do not have additional risk factors such as diabetes or a previous Caesarean section, may have lower obstetric risks than previously appreciated. In particular, the absolute risks that the mother or baby will require obstetric or neonatal care was lower in this group than for 'low-risk' women of normal weight having a first baby. 'These findings suggest that it may be reasonable to enable some multiparous obese women, who are otherwise healthy, a choice of birth setting.'

The antenatal care pathways (Appendix 1, 2 1nd 3) have been developed to incorporate NICE, MBRRACE-UK, RCOG Green-top Guidelines and Birthplace Study guidance on the care of the obese pregnant woman.

Antenatal Thromboprophylaxis

All women should be risk assessed at the first booking appointment and subsequently at **every** antenatal admission to hospital. VTE Assessment must be completed.

Additional Advice

Preconception advice
Pre-pregnancy need 5mg folic acid
Smoking cessation

Consider if environmental risk assessment necessary regarding availability of facilities such as:

Circulation space
Accessibility (doorway widths and thresholds)
Working loads for equipment and floors
Appropriate size theatre gowns
Equipment storage
Transportation such as wheelchairs, trollies and beds
Specific equipment such as large blood pressure cuffs, compression stockings, sit-on weighing scales, large chairs without arms, scan couches, mattresses, lifting and lateral transfer equipment.
Central list of facilities including safe working loads, product dimensions, where specific equipment is located and how to access it.

Breastfeeding advice

Mission Statement

"ABMU Health Board is dedicated to the support of all mothers and their infants, breastfeeding is a biological norm and should be considered as the optimal way to feed your baby. We are dedicated to offering up-to-date evidence based information about breastfeeding so women can make an informed decision with regard to feeding and the increased risks associated with the choice of not breastfeeding, and the possible impacting on her and her baby's health. It is the community's responsibility to encourage and support all mothers and their choice to feed their babies. "

Women with a BMI 30 – 34.9

Midwife led care (MLC)
Discuss and provide RCOG leaflet 'Why your weight matters during pregnancy'
Early advice on diet and weight management
Folic Acid 5mg until 12th week gestation (via GP)
Vitamin D advised throughout pregnancy
Glucose Tolerance Test (GTT) 26 -28 weeks

Women with a BMI 35 – 39.9 with no other risk factors

Midwife Led Care –see Flowchart in Appendix 2
Discuss and provide RCOG leaflet "Why your weight matters during pregnancy"
Early advice on diet and weight management
Low dose aspirin where applicable

Folic Acid 5mg until 12th week gestation (via GP)
Vitamin D advised throughout pregnancy
GTT 26-28 weeks
Growth Scans as per department policy including Amniotic Fluid Index (AFI) and Estimated Fetal Weight (EFW)
Birth plan to include recommendation for Active 3rd stage of labour due to increased risk of post-partum haemorrhage

Women with BMI 35-39.9 with additional risk factors

Consultant Led Care – see Appendix 2 but including Obstetric individualized care plan

Women with a BMI 40 and over

Consultant led care – with consideration if can return to Midwife Led Care
Early obstetric consultant appointment at 12 weeks
Early advice on a healthy diet and weight management
Discuss and provide RCOG leaflet "Why your weight matters during pregnancy"
Low dose aspirin where applicable.
GTT at 26-28 weeks
Growth Scans 4 weekly from 28 weeks including Amniotic Fluid Index (AFI) and Estimated Fetal Weight (EFW)
If 36 weeks weight is over 150kg inform Central Delivery Suite (CDS)
Refer for an Anaesthetic assessment – BMI > 45 (Anaesthetic guidelines)
Manual handling assessment to be completed and filed in handheld notes to be completed including tissue viability in 3rd trimester, determining any requirements for labour.
Consideration for extra long spinal and epidural needles if required.
Birth plan to include recommendation for active 3rd stage of labour due to increased risk of post-partum haemorrhage. Preferable to have venous access from early in labour rather than in emergency situation.

Postnatal

- Encourage early ambulation / mobilization and good hydration
- Offer Thromboprophylaxis according to Risk Assessment Score – see appendix 3
- Beware of increased risk of wound infection and if necessary involve wound care team early if any signs. If immobile, ensure assessed for pressure wounds
- Extra support with breast feeding may be required

<u>Thromboprophylaxis (see Guidelines in COIN)</u>

Ensure women are risk assessed appropriately for Thromboprophylaxis as per guidance on COIN

Special consideration for women whose weight is over 150kg

Consider manual-handling issues while ensuring woman's dignity is maintained at all times to include

- Check load threshold for theatre table
- Ensure suitable bed is available on Antenatal and Postnatal wards as well as labour ward.

- Ensure suitable chair is available
- Will a hoist be needed and does anyone need training to use one?

Inform CDS intrapartum /operational lead and ensure robust plan in place for birth.

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Appendix 1 - Pathway for Women with BMI of 30 – 34.9

First Contact and/or booking appointment with Midwife

- Calculate Height, Weight & BMI
- Record in All Wales Handheld maternity record and WPAS
- Discuss healthy eating and eating for one.
- **Advise Total Recommended Weight Gain 7-11kg**
- Discuss exercise in pregnancy – recommended 150 mins per week
- Recommend 5mg Folic Acid til 12th week of pregnancy
- Recommend 10mcg Vitamin D throughout pregnancy.
- Risk assess for MLC if no other risk factors.
- Offer Glucose Tolerance Test (GTT) 26 weeks
- Discuss place of birth

15-17 weeks – See community midwife as per NICE guidance	Remind women to eat for one and exercise is safe in pregnancy. See CMO official guidance.
25 weeks – See community Midwife	Ensure woman has GTT appointment and knows where to go.
26 weeks – ANC for GTT	At re-weigh, if weight gain >10kg remind of risks of increased weight gain in pregnancy for labour and birth.
28 weeks – See community Midwife	Check GTT results and relay to woman. Record GTT results in All Wales handheld maternity record.
31 weeks – See community Midwife	Discus weight maintenance and re-iterate eating for one
34 -38 weeks – See community Midwife	• Can re-weigh for birth from this point onwards especially if seeing the woman at home for 36-week birth plan. • If weight gain >10kg and USS normal, discuss risks of increased weight gain for labour and birth. • Arrange GTT • If USS normal – re-iterate risks of increased weight gain in pregnancy and encourage to try portion control • Discuss place of birth options
40 weeks – See community Midwife	Ensure place of birth documented and woman has contact numbers. Offer membrane sweep from Term onwards

Appendix 2 - Pathway for Women with BMI of 35-39.9

First Contact and/or booking appointment with Midwife

- Calculate Height, Weight & BMI
- Record in All Wales Handheld maternity record and WPAS
- Discuss healthy eating and eating for one
- **Advise Total Recommended Weight Gain 5-9 kg**
- Discuss exercise in pregnancy – recommended 150 mins per week
- Recommend 5mg Folic Acid til 12th week of pregnancy
- Recommend 10mcg Vitamin D throughout pregnancy.
- Risk assess for MLC if no other risk factors.
- Offer Glucose Tolerance Test (GTT) 26 weeks
- Discuss GAP / GROW and that will have growth scans >28 weeks every 4 weeks thereafter.

15-17 weeks – See community midwife as per NICE guidance	Remind women to eat for one and exercise is safe in pregnancy. See CMO official guidance.
Anomaly Scan – see ANC midwife	Ensure Growth scans arranged from 28 weeks and woman booked into ML scan clinic for review
25 weeks – See community Midwife	Ensure woman has GTT appointment and knows where to go.
26 weeks – ANC for GTT	At re-weigh, if weight gain >10kg discuss risks of increased weight gain in pregnancy and recommend lifestyle changes to support weight maintenance. Encourage increased activity.
28 weeks – See community Midwife	Check GTT results and relay to woman. Record GTT results in All Wales handheld maternity record.
31 weeks – See community Midwife	Discus weight maintenance and re-iterate eating for one
34 -38 weeks – See community Midwife	• Can re-weigh for birth from this point onwards especially if seeing the woman at home for 36-week birth plan. • If weight gain >10kg discuss increased risk of excess weight gain in pregnancy during labour. • If USS normal – re-iterate risks of increased weight gain in pregnancy • Discuss place of birth options and complete birth management plan – will be placed in front of handheld notes for staff to clearly see discussion and plan ****There is little value in arranging a GTT at this gestation as the risk of a false result is great. If considering, please speak to the Diabetes Specialist Midwives first to discuss******
40 weeks – See community Midwife	Ensure place of birth documented and woman has contact numbers. Offer membrane sweep from Term onwards

Appendix 2 - Pathway for Women with BMI of 40 and above

First Contact and/or booking appointment with Midwife

- Calculate Height, Weight & BMI.
- Record in All Wales Handheld maternity record and WPAS
- Discuss healthy eating and eating for one
- **Advise Total Weight Gain 5-9 kg**
- Discuss exercise in pregnancy – recommended 150 mins per week
- Recommend 5mg Folic Acid til 12th week of pregnancy
- Recommend 10mcg Vitamin D throughout pregnancy.
- **Inform woman of need for Consultant Led Care.**
- Offer Glucose Tolerance Test (GTT) 26 weeks
- Discuss GAP / GROW and that will have growth scans >28 weeks every 4 weeks thereafter.

15-17 weeks – See community midwife as per NICE guidance	Remind women to eat for one and exercise is safe in pregnancy. See CMO official guidance.
Anomaly Scan – see ANC midwife	Ensure Growth scans arranged. Book appointment for Cons review. Refer to HIP clinic if acceptable to Consultant.
25 weeks – See community Midwife	Ensure woman has GTT appointment and knows where to go.
26 weeks – ANC for GTT	At re-weigh, if weight gain >10kg discuss risks of increased weight gain in pregnancy and recommend lifestyle changes to support weight maintenance. Encourage increased activity.
28 weeks – See ANC & USS	Check GTT results and relay to woman with other blood results. Record GTT results in All Wales handheld maternity record. Check USS and ensure plotted in handheld notes. See Consultant for review and plan
31 weeks – See community Midwife	Discus weight maintenance and re-iterate eating for one
32 weeks – See ANC & USS	Review USS and ensure plotted in handheld notes. See consultant if necessary for review and plan
36 weeks – See ANC & USS	• Review USS and ensure plotted in handheld notes. • See Consultant for review and plan of care for birth • Re-weigh for 36 week data. • Discuss place of birth options and complete birth management plan – will be placed in front of handheld notes for staff to clearly see discussion and plan • ***There is little value in arranging a GTT at this gestation as the risk of a false result is great. If considering, please speak to the Diabetes Specialist Midwives first to discuss****
40 weeks – See community Midwife	Ensure place of birth documented and woman has contact numbers. Offer membrane sweep at Term onwards.

Maternity Services

Checklist for Clinical Guidelines being Submitted for Approval

Title of Guideline:	Management of women with BMI of Above 30 kg/m2
Name(s) of Author:	[redacted] Consultant Midwife Updated by [redacted] – Public Health Midwife
Chair of Group or Committee supporting submission:	Antenatal Forum
Issue / Version No:	2
Next Review / Guideline Expiry:	2022
Details of persons included in consultation process:	All midwives and obstetric consultations
Brief outline giving reasons for document being submitted for ratification	In line with Welsh Government performance targets
Name of Pharmacist (mandatory if drugs involved):	n/a
Please list any policies/guidelines this document will supercede:	n/a
Keywords linked to document:	Obese, obesity, bmi
File Name: Used to locate where file is stores on hard drive	