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Royal Cornwall Hospitals NHS Trust

Increased Body Mass Index (BMI) in Pregnancy, Labour and Post Delivery Clinical Guideline

V2.1

October 2020

1. Aim/Purpose of this Guideline

1.1. Guidance for midwives, obstetricians and anaesthetists on managing a woman with an increased body mass index in pregnancy, labour and post-delivery.

1.2. This version supersedes any previous versions of this document.

1.3. This guideline makes recommendations for women and people who are pregnant. For simplicity of language the guideline uses the term women throughout, but this should be taken to also include people who do not identify as women but who are pregnant, in labour and in the postnatal period. When discussing with a person who does not identify as a woman please ask them their preferred pronouns and then ensure this is clearly documented in their notes to inform all health care professionals (NEW 2020).

Data Protection Act 2018 (General Data Protection Regulation – GDPR) Legislation

The Trust has a duty under the DPA18 to ensure that there is a valid legal basis to process personal and sensitive data. The legal basis for processing must be identified and documented before the processing begins. In many cases we may need consent; this must be explicit, informed and documented. We cannot rely on opt out, it must be opt in.

DPA18 is applicable to all staff; this includes those working as contractors and providers of services.

For more information about your obligations under the DPA18 please see the *Information Use Framework Policy* or contact the Information Governance Team rch-tr.infogov@nhs.net

2. The Guidance

The prevalence of obesity in pregnancy has been seen to increase and in 2015 was 19% at RCH. Obesity in pregnancy is associated with an increased risk of serious adverse outcomes. There is evidence that there is a higher caesarean section rate and a lower breast feeding rate in this group of women. There is also evidence to suggest that obesity may be a risk factor for maternal death: the MBRACE Report (2011-2013) reported that 30% of mothers that died were obese.[1]

2.1. Definition

Obesity in pregnancy is usually defined as a body mass index (BMI) of 30kg/m^2 or more at the first antenatal consultation. There are three different classes of obesity: BMI 30.0-34.9 (class 1), BMI 35.0-39.9 (class 2) and BMI 40 and over (class 3 or morbidly obese).

2.2. Booking appointment

2.2.1. The booking midwife should provide appropriate information sensitively which will empower the woman to be fully informed of the risks associated with obesity.

2.2.2. Women should be made aware of the importance of healthy eating and appropriate exercise during pregnancy in order to prevent excessive weight gain and gestational diabetes. To dispel any myths about what and how much to eat during pregnancy, energy needs only increase by about 200 calories a day in the last trimester[2]

2.3. Folic acid and Vitamin D in pregnancy

2.3.1. Women with a BMI of 30 or greater should be advised to take 5mgs of folic acid supplement daily prior to conception and continue during the first trimester.[1]

2.3.2. Women with a BMI of 30 or over should be advised to take 10 micrograms Vitamin D supplement daily during pregnancy. There is an associated increased risk of vitamin D deficiency in both the woman and her baby.[1] This can be part of a multivitamin specific for pregnant women.

2.4. Calculating BMI in pregnancy

2.4.1. BMI at booking may be less reliable and consistent. Raised BMI pregnancy risk assessment and management should be based upon the measurement of BMI at the dating scan for the purpose of generating a GROW chart. Community midwives should review the BMI recorded on the GROW chart at the 16 week appointment and amend the BMI record in the patient's notes and on E3 if necessary.

2.4.2. All women attending the fetal medicine department for a first trimester dating scan will be weighed and measured and the BMI calculated electronically. The BMI will be documented by the fetal medicine midwife in the hand held notes under the BMI at booking section.

2.4.3. For women that decline a first trimester scan or book late, the named community midwife should arrange to meet them at a community venue where they can weigh and measure them using the appropriate equipment. The BMI should be calculated and the weight and BMI entered in the hand held notes in the BMI section.

2.4.4. The woman's height and weight should be entered on to the maternity euroking system and an on screen calculation of the BMI will be available.

2.4.5. If the BMI is greater than 30 re-weigh the woman at 34/40 and document in the handheld notes (do not recalculate BMI)

2.5. Referral pathways

2.5.1. The community midwife responsible for reviewing the woman at the 16weeks appointment must ensure that the following referral

pathways are implemented. These must be clearly documented in the woman's hand held notes.

2.5.1.1. Women with a BMI of 30.0-34.9 and no other risk factors at the time of booking or developing throughout pregnancy are suitable for midwifery lead care and community birth.

2.5.1.2. Women with a BMI of 35.0-39.9 must be booked under consultant led care and advised to give birth in a consultant led obstetric unit. (The woman does not have to be seen in a consultant lead clinic, this will be as per individual consultant pathway)

2.5.1.3. Women with a BMI of 40 or greater must be referred for an appointment with a consultant obstetrician during her 2nd trimester; if other risk factors are present this may be required sooner.

2.5.1.4. Women with a BMI of 42 or greater should be referred to the anaesthetic clinic, ex: 4130, during the second trimester of pregnancy, where an individual assessment and management plan will be agreed. During this appointment the woman will have a manual handling and tissue viability risk assessment completed and a management plan developed if required.

2.5.1.5. Women with a BMI of 30 or greater must be offered a glucose tolerance test (GTT) at 26 weeks. If there are other risk factors present this may need to be sooner.

2.5.1.6. Women with a BMI of 30 or greater should be assessed at booking for the risk of thromboembolism in accordance with the RCHT thromboprophylaxis guideline[3]

2.5.1.7. Women with a BMI of 35 or greater have an increased risk of pre-eclampsia and should be managed in accordance with the PRECOG guidelines. This should include community monitoring for pre-eclampsia at a minimum 3 weekly intervals between 24-32 weeks gestation and 2 weekly intervals from 32 weeks until delivery.

2.6. Ongoing management

2.6.1. All women with a BMI of 30 or greater should be informed of the limitation of scanning and fetal monitoring in labour.

2.6.2. All women with a BMI of 30 or greater should be informed, ante natally, about possible intrapartum complications associated with an increased BMI, e.g. increased risk of slow progress in labour, shoulder dystocia, emergency caesarean section and post partum haemorrhage.

2.6.3. At the birth plan visit women with a BMI greater than 30 should be given the leaflet ‘Pressure sores during labour: your risks explained’.

2.6.4. Women with a BMI of 40 or greater should be given the leaflet ‘Why do I need to see an anaesthetist during my pregnancy? Information for pregnant women with a high body mass index (BMI)’. This can be downloaded in several languages from www.oaaformothers.info.

2.7. Care for labour and delivery of women with a BMI of 35 or greater

2.7.1. Women with a BMI of 35 or greater should be advised to give birth in a consultant led unit.

2.7.2. Serial ultrasound scans should be booked to monitor growth and fundal height measurement should not be used. A routine schedule is 32, 36 and 40 weeks, with an additional 28 week scan in primips or have other risk factors for SGA. The timings may be modified in the presence of additional risks.

2.7.3. The perinatal risk folders should be checked for any specific obstetric or anaesthetic plan

2.7.4. The on call obstetric registrar should be informed of the admission of any woman with a BMI of 40 or greater.

2.7.5. The duty anaesthetist should review all women with a BMI 40 or greater on admission and perform a CAVE assessment (Co morbidities/Airway assessment/Venous access/consider epidural and equipment)

2.7.6. Women with a BMI of 40 or greater should have venous access established early in labour.

2.7.7. The midwife should check the individual risk assessment for any equipment or manual handling requirements and ensure these are available.

2.7.8. There should be early recourse to fetal scalp electrode monitoring if there are difficulties with external fetal monitoring.

2.7.9. Extra vigilance should be paid with regard to pressure area care.

2.7.10. Recommend active management of 3rd stage of labour.

2.7.11. Women with a BMI of 40 or greater should deliver in a larger room and on an appropriate bed due to the increased risk of intrapartum risk factors.

2.7.12. A senior Obstetrician and anaesthetist should be involved in the management of a woman with a BMI of 40 or greater, including attending any deliveries in theatre and physical review during the ward round.

2.7.13. When induction of labour/elective delivery is planned, for a woman with a BMI of 40 or greater, the aim should be to deliver her when a consultant obstetrician and consultant anaesthetist is present on delivery suite.

2.8. Delivery by caesarean section

2.8.1. For women undergoing elective caesarean section, who have a raised BMI, their weight should be recorded in the delivery suite diary when booking the caesarean section, to alert theatre staff to prepare the appropriate equipment.

2.8.2. Additional, appropriate equipment should be considered prior to procedure. E.G use of hover mattress and O-ring

2.9. Post-natal care

2.9.1. Encourage women to mobilise as early as possible

2.9.2. Women with a BMI of 40 or greater will be offered post natal thromboprophylaxis in line with the RCHT thromboprophylaxis guideline.[3]

2.9.3. Provide TED stockings in line with RCHT guideline[3]

2.9.4. Give advice and support regarding initiation of breastfeeding. Obesity is associated with low breastfeeding initiation and maintenance rates.

2.9.5. Refer to the GP for advice on diet and lifestyle

Care pathway: Management of a woman with an increased body mass index (BMI) in pregnancy, labour and post delivery.

3. Monitoring compliance and effectiveness

Element to be monitored	• Was the BMI documented in the hand held notes • Was the BMI available on the euroking maternity system • If the woman's BMI was 40 or greater did she received an ante natal consultation with an obstetric anaesthetist • If the woman's BMI was 40 or greater did she have a documented obstetric anaesthetist plan for labour and delivery • If the woman had a BMI of 30 or above was it documented that she was informed of the risks of possible intrapartum complications. For woman with a BMI of 40 or greater was an individual manual handling and tissue viability assessment completed and a management plan developed, if required.
Lead	Audit Midwives
Tool	Excel used to analyse data
Frequency	Once within the life time of the guideline
Reporting arrangements	• A formal report of the results will be received annually at the Patient Safety Meeting and clinical audit forum, as per the audit plan • During the process of the audit if compliance is below 75% or other deficiencies identified, this will be highlighted at the next maternity Patient Safety Meeting and clinical audit forum and an action plan agreed.
Acting on recommendations and Lead(s)	• Any deficiencies identified on the annual report will be discussed at the Patient Safety Meeting and clinical audit forum and an action plan developed • Action leads will be identified and a time frame for the action to be completed • The action plan will be monitored by the Patient Safety Meeting and clinical audit forum until all actions complete
Change in practice and lessons to be shared	• Required changes to practice will be identified and actioned within a time frame agreed on the action plan • A lead member of the forum will be identified to take each change forward where appropriate. • The results of the audits will be distributed to all staff through the Patient Safety newsletter/audit forum as per the action plan

4. Equality and Diversity

4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the 'Equality, Inclusion & Human Rights Policy' or the Equality and Diversity website.

4.2. Equality Impact Assessment

The Initial Equality Impact Assessment Screening Form is at Appendix 2.

Appendix 1. Governance Information

Document Title	Increased Body Mass Index (BMI) in Pregnancy, Labour and Post Delivery Clinical Guideline V2.1		
This document replaces (exact title of previous version):	Increased Body Mass Index (BMI) in Pregnancy Clinical Guideline V2.0		
Date Issued/Approved:	October 2019		
Date Valid From:	October 2020		
Date Valid To:	October 2022		
Directorate / Department responsible (author/owner):	Rob Holmes, Consultant Obstetrician		
Contact details:	01872 252730		
Brief summary of contents	Management of a woman with an increased body mass index.		
Suggested Keywords:	BMI Obesity in pregnancy		
Target Audience	RCHT	CFT	KCCG
	✓		
Executive Director responsible for Policy:	Medical Director		
Approval route (names of committees)/consultation:	Maternity Guideline Group Obs and Gynae Directorate		
General Manager confirming approval processes	Mary Baulch		
Name of Governance Lead confirming approval by specialty and care group management meetings	Caroline Amukusana		
Links to key external standards	CNST		
Related Documents:	• CMACE/RCOG March 2010: **Management of women with obesity in pregnancy** • National institute for health and clinical excellence: July 2010: **Weight management before, during and after pregnancy.** • RCHT thromboprophylaxis guideline.		
Training Need Identified?	No		

Publication Location (refer to Policy on Policies – Approvals and Ratification):	Internet & intranet	✓	Intranet Only	
Document Library Folder/Sub Folder	Clinical/Midwifery and Obstetrics			

Version Control Table

Date	Version No	Summary of Changes	Changes Made by *(Name and Job Title)*
June 2009	V1.0	Initial document	Jan Clarkson Maternity risk manager
November 10	V1.1	Updated and compliance monitoring added	Jan Clarkson Maternity risk manager
September 12	V1.2	Change to compliance monitoring only	Jan Clarkson Maternity risk manager
June 2016	V1.3	Updated: GTT at 26 rather than 28 weeks Serial growth scans rather than fundal height measurement 'Why do I need to see an anaesthetist' leaflet given at BMI >40 rather than >35	Rob Holmes Consultant Obstetrician and Gynaecologist
17th November 2017	V1.4	If the BMI is greater than 30 re-weigh the woman at 34/40 and document in the handheld notes (do not recalculate BMI)	Rob Holmes Consultant Obstetrician and Gynaecologist
October 2019	V2.0	Updated. Changes to 2.4.1 and 2.4.2 regarding the optimum time to calculate a patient's BMI and where to record it.	Rob Holmes Consultant Obstetrician and Gynaecologist
October 2020	V2.1	Updated Changes to 2.5.1.4 BMI of 42 or greater to be referred to anaesthetic clinic instead of BMI of 40.	Sally Nash Consultant Anaesthetist

All or part of this document can be released under the Freedom of Information Act 2000

This document is to be retained for 10 years from the date of expiry.
This document is only valid on the day of printing

Controlled Document

This document has been created following the Royal Cornwall Hospitals NHS Trust Policy for the Development and Management of Knowledge, Procedural and Web Documents (The Policy on Policies). It should not be altered in any way without the express permission of the author or their Line Manager.

Appendix 2. Initial Equality Impact Assessment

<table>
<tr><th colspan="6">Section 1: Equality Impact Assessment Form</th></tr>
<tr><td colspan="6">Name of the strategy / policy /proposal / service function to be assessed
Increased Body Mass Index (BMI) in Pregnancy, Labour and Post Delivery Clinical Guideline V2.1</td></tr>
<tr><td colspan="3">Directorate and service area:
Obstetrics and Gynaecology</td><td colspan="3">Is this a new or existing Policy?
Existing</td></tr>
<tr><td colspan="3">Name of individual/ group completing EIA:
Rob Holmes, Consultant Obstetrician</td><td colspan="3">Telephone:
01872 252730</td></tr>
<tr><td>1. Policy Aim

Who is the strategy / policy / proposal / service function aimed at?</td><td colspan="5">To give guidance to midwives on managing a woman with an increased body mass index in pregnancy, labour and post-delivery.</td></tr>
<tr><td>2. Policy Objectives</td><td colspan="5">Evidence based care for women with increased BMI in pregnancy</td></tr>
<tr><td>3. Policy – intended Outcomes</td><td colspan="5">Good outcome for women with a raised BMI in pregnancy</td></tr>
<tr><td>4. How will you measure the outcome?</td><td colspan="5">Compliance monitoring</td></tr>
<tr><td>5. Who is intended to benefit from the policy?</td><td colspan="5">Pregnant women & baby</td></tr>
<tr><td rowspan="3">6a Who did you consult with

b). Please identify the groups who have been consulted about this procedure.</td><td>Workforce</td><td>Patients</td><td>Local groups</td><td>External organisations</td><td>Other</td></tr>
<tr><td>x</td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="5">Please record specific names of groups:

Clinical Guideline Group
Obstetrics and Gynaecology Directorate</td></tr>
<tr><td>c). What was the outcome of the consultation?</td><td colspan="5">Guideline Agreed</td></tr>
</table>

7. The Impact
Please complete the following table. If you are unsure/don't know if there is a negative impact you need to repeat the consultation step.

Are there concerns that the policy **could** have differential impact on:

Protected Characteristic	Yes	No	Unsure	Rationale for Assessment / Existing Evidence
Age		x		
Sex (male, female, non-binary, asexual etc)		x		
Gender reassignment		x		
Race / Ethnic communities /groups		x		
Disability - Learning disability, physical disability, sensory impairment, mental health conditions and some long term health conditions.		x		
Religion / other beliefs		x		
Marriage and Civil partnership		x		
Pregnancy and maternity		x		
Sexual Orientation, Bisexual, Gay, heterosexual, Lesbian		x		

If all characteristics are ticked 'no', and this is not a major working or service change, you can end the assessment here as long as you have a robust rationale in place.

I am confident that section 2 of this EIA does not need completing as there are no highlighted risks of negative impact occurring because of this policy.

Name of person confirming result of initial impact assessment:	**Rob Holmes Consultant Obstetrician**

If you have ticked 'yes' to any characteristic above OR this is a major working or service change, you will need to complete section 2 of the EIA form available here:
Section 2. Full Equality Analysis

For guidance please refer to the Equality Impact Assessments Policy (available from the document library) or contact the Human Rights, Equality and Inclusion Lead debby.lewis@nhs.net