Hull University Teaching Hospitals NHS Trust

240 – Management Of Women With BMI Over 30kg/M² Guideline

Broad Recommendations / Summary
Obesity is defined by the World Health Organisation (WHO) (1998) and the National Institute of Health (1998) as a Body Mass Index (BMI) of ≥30kg/m^2.There is substantial evidence that obesity in pregnancy contributes to increased morbidity and mortality for both mother and baby.

1 PURPOSE / LEGAL REQUIREMENTS / BACKGROUND

The aim is to identify and reduce complications associated with obesity in pregnant women.

The objectives are to:

- Identify women with a raised BMI over 30 kg/m^2 at booking and refer to Healthy Lifestyles Midwife, complete GTT referral form and forward to specialist diabetes midwife
- Highlight women with a raised BMI 35 kg/m2 or above who require an obstetric management plan by a consultant obstetrician
- Ensure women with a BMI over 45 kg/m2 (or weight >150kgs) have a documented antenatal consultation with a consultant obstetric anaesthetist
- Provide guidance to ensure available and suitable bariatric equipment is available

This guideline will apply to all obstetricians and midwives caring for women at Hull University Teaching Hospital NHS Trust.

2 POLICY / PROCEDURE / GUIDELINE DETAILS

ANTENATAL CARE PATHWAY FOR WOMEN WITH BMI OVER 30kg/m²

Pregnancy Risks Associated with Obesity:

The complications of obesity during pregnancy have implications for both mother and child. There is an increased risk of a range of antenatal, intrapartum, anaesthetic and postnatal complications, with the degree of risk being relative to the level of obesity.

The following must be discussed with the women by a clinician ST3 or greater and documented on the BMI Discussion Checklist (appendix 6) for women with a BMI >35

Antenatal

- Miscarriage
- Gestational Diabetes
- Abnormal fetal growth: macrosomia or intra uterine growth restriction
- Hypertension and pre-eclampsia
- Thromboembolism
- Pelvic Girdle pain
- Undiagnosed fetal anomaly

Intrapartum

- Failure to progress in labour
- Shoulder dystocia
- Difficulty in monitoring the fetal heart / application of FSE
- Increased risk of Post Partum Haemorrhage
- Increased risk of Caesarean Section

- Caesarean section with associated increased morbidity / mortality
- Increased risk of admission to NICU

Postnatal
- Wound infection
- Thromboembolism
- Lower rates of breast feeding initiation due to mechanical factors, delayed onset of lactogenesis II, hormonal imbalances, psychosocial factors and mammary hypoplasia

Anaesthetic Risk
- Difficult siting of epidural/spinal which may result in inadequate analgesia post insertion
- Risk of failed intubation with general anaesthetic

Health and Safety of Staff
Positioning and moving of the woman and the safe use of the appropriate equipment i.e. operating tables, wheelchairs considered. See Appendix 3.

BOOKING FOR WOMEN WITH BMI OVER 30kg/m^2

Women will be offered routine antenatal care as per NICE guidance www.nice.org.uk/guidance/CG6

IDENTIFY THE FOLLOWING

- Height and weight to be measured not self-reported
- At booking the calculation of BMI will be recorded and documented in maternity Hand Held records page 19 and on electronic maternity records system (if woman's weight exceeds scales capacity, community midwife to inform ANC that woman needs to be weighed in ANC when attending for dating scan/screening)
- Ensure all women have access to the link for ' Tommy's managing weight' in pregnancy guide Weight management in pregnancy | Tommy's (tommys.org)

BMI 30 - 34.9

All women with BMI 30-34.9 are advised to book for Midwifery Led care (unless any other existing medical conditions or obstetric complications identified)

BMI 35 - 39.9

- All women with BMI 35-39.9 Consultant Led Care will be advised to deliver in an Obstetric Led Unit
- If homebirth requested, for Consultant discussion
- If AMLU requested, for discussion with consultant & AMLU manager
- Fundal height measurement not recommended will require EFW serial scans as per GAP protocol

BMI 40 – 44.9 (or weight >150kgs)

- Consultant Led Care, advised to deliver in an Obstetric Led Unit
- If homebirth requested, for Consultant discussion
- The management plan should be undertaken in partnership with the obstetrician and anaesthetist and documented in maternity records for antenatal care and labour
- This may include requesting the women attend for an antenatal appointment with the consultant anaesthetist
- Fundal height measurement not recommended will require EFW serial scans as per GAP protocol

BMI 45 and over (or weight >150kgs)

- Consultant Led Care, advised to deliver in an Obstetric Led Unit.
- If homebirth requested, for consultant discussion
- Referral to an Obstetric Anaesthetist for an antenatal consultation
- Women whose BMI is 45 (or weight >150kgs) and over will have an antenatal appointment with the consultant who will then discuss with the woman and initiate an obstetric anaesthetic management plan
- Management plan should be undertaken in partnership with the obstetrician and anaesthetist and documented in maternity records
- Fundal height measurement not recommended will require EFW serial scans as per GAP protocol

All women with a BMI over 35kg/m^2 will have a documented antenatal consultation with an obstetrician >ST3 to discuss the possible antenatal and intrapartum complications. (The appropriately trained professionals are detailed on page 1 and appendix 6)
The healthy lifestyle midwife will see all women with a weight >120kgs in a community setting at 24 weeks in a wellbeing clinic to discuss healthy lifestyles and preparation for birth, including necessary additional equipment. Further appointments can be arranged.

Antenatal Care

- Receive Healthy Lifestyle Information including diet.
- Offer exercise information. If new to exercise 15 minutes 3 times per week increasing to 30 minutes daily
- Promote Healthy start
- Advise weight gain 7-9kg in total. 0.2kg per week 2nd 3rd Trimester
- Confirm women are taking 5 milligrams (mg) of folic acid daily
- Advise to take 10 micrograms(mcg) of Vitamin D
- Ensure VTE assessment has been undertaken in line with maternity VTE guideline [redacted]
- Consider GTT Pathway
- Consider High Risk Factors
- Consider Prescribing Aspirin – See Appendix 2

Weigh at 28 and 36 weeks gestation. If weight gain > 10kg, refer to Healthy Lifestyle Midwife for wellbeing appointment. If scales not appropriate in community, to be weighed at Consultant appointment in ANC

Use large cuff to record BP (document size)

Assess and document skin integrity at 36-38 weeks

Ensure equipment appropriate in clinical areas (Appendix 3)

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Ensure equipment appropriate in clinical areas (Appendix 3)

Documented assessment of pregnancy risks associated with obesity (if BMI>35)**(Appendix 6)**

Documented assessment of pregnancy risks associated with obesity **(Appendix 6)**

↓

Weight > 150 kg either at booking, 28 or 36 weeks inform the Healthy Lifestyle Midwife for individualised care plan for equipment requirements. Record on Lorenzo and inform ward managers

↓

The Safety Department will assist with the availability of suitable equipment in the care settings provided by the Maternity Service.

Information on equipment for hire is available in all clinical areas

Bariatric Boxes available in all clinical areas

The healthy lifestyle midwife will assess the availability of suitable equipment at the home if the woman has requested a home birth

↓

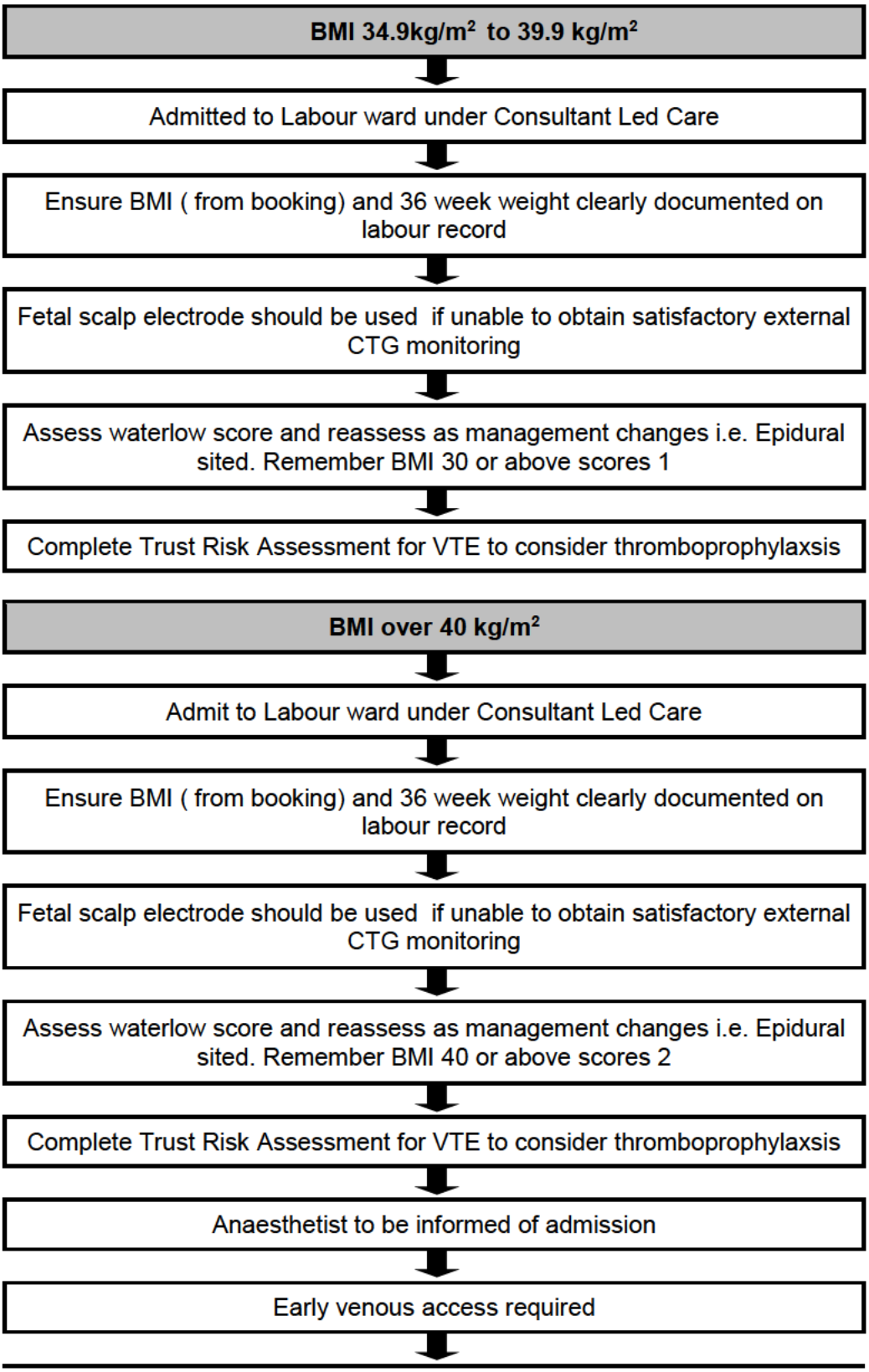
A documented obstetric anaesthetic management plan for labour and delivery is discussed with the woman

↓

The midwife / obstetrician will also consider tissue viability issues as advised from the Trust Tissue Viability service from [redacted] and documenting management plan in maternity records. Explain increased risk and how can minimise risk. Remember BMI of 30 and above triggers 1 on waterlow score

INTRAPARTUM CARE

Women will be offered routine Intrapartum care as per Trust guideline [redacted] with the following additions:



Consider 2nd cannula if BMI >40

POSTNATAL CARE

Women will be offered routine Postnatal Care with the following addition:

- Ensure VTE assessment has been undertaken in line with Maternity VTE Guideline
- [redacted]
- Consider offering help to lose weight via local initiatives to encourage weight loss between pregnancies.

IF BMI OVER 40 kg/m^2 COMMENCE POSTNATAL THROMBOPROPHLAXIS FOR 10 DAYS REGARDLESS OF MODE DELIVERY

3 PROCESS FOR MONITORING COMPLIANCE

As identified from risk management, safety or quality issues.

4 REFERENCES

- National Institute for Health and Clinical Excellence (NICE 2008) Antenatal care – Routine care for the healthy pregnant woman CG 62 www.nice.org.uk/guidance/CG62
- BJOG (2010) Saving Mothers Lives: Reviewing maternal deaths to make motherhood safer: 2006-2008. The Eighth Report of the Confidential Enquiries into Maternal Deaths in the United Kingdom
- Jennie Bever Babendure, Elizabeth Reifsnider, Elnora Mendias, Michael W. Moramarco,corresponding author and Yolanda R. Davila (2015) Reduced breastfeeding rates among obese mothers: a review of contributing factors, clinical considerations and future directions: International Breastfeed Journal. 2015; 10: 21
- National Institute for Health and Clinical Excellence (NICE) (2010) weight management before, during and after pregnancy: Dietary interventions and physical activity interventions for weight management before, during and after pregnancy. http://www.nice.org.uk/nicemedia/live/13056/49926/49926.pdf
- RCOG (2018) Care of Women with Obesity in Pregnancy https://www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg72/
- National Institute for Health and Clinical Excellence. (NICE 2010) Hypertension in pregnancy. (CG107) The management of hypertensive disorders during pregnancy http://www.nice.org.uk/nicemedia/live/13098/50418/50418.pdf
- NHS England (2019) Saving babies Lives version 2: A care bundle for reducing perinatal mortality- NHS England [Accessed 12/12/19].

5 APPENDICES

- APPENDIX 1 – Duties
- APPENDIX 2 – GP Letter
- APPENDIX 3 – Equipment List
- APPENDIX 4 – Referral to Healthy Lifestyle Midwife
- APPENDIX 5 – Definitions

- APPENDIX 6 - ^BMI Discussion Checklist
- APPENDIX 7 - Monitoring Overview

Document Control			
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Document Managed by Name:	[redacted]	**Ratification Committee:**	Family & Women's Health Group Governance
Document Managed by Title:	Healthy Lifestyle Midwife		
Consultation Process			
Email distribution to all midwifery, obstetric and anaesthetic staff. Discussion and approval at obstetric guidelines meeting, obstetric governance meeting and health group governance meeting.			
Key words (to aid intranet searching)			
Obesity, BMI, obese, raised BMI			
Target Audience			
All staff			

Version Control			
Date	**Version**	**Author**	**Revision description**
August 2011	1	[redacted]	New guideline
November 2011	2	[redacted]	Update
September 2012	3	[redacted]	Update
November 2012	4	[redacted]	Minor amendment to section 5
May 2014	4.1	Obstetric Guidelines Group	Amendment to monitoring form – frequency of audit
January 2016	V5	[redacted]	Update
March 2017	V6	[redacted]	Review and update
September 2019	V7	[redacted]	Review & renew to include recommendations from recent RCOG guidance
December 2019	V7	[redacted]	Updated for aspirin prescription GP letter in Appendix 2
June 2021	V8	[redacted]	Review and update. Appendix 6 ^BMI Discussion and equipment Checklist

Appendix 1 - DUTIES

Title	Duties
Consultant Obstetrician	Lead professional for all women with BMI > 35kg/m^2 or Weight >150kgs. Clinical assessment and decision making for plan of management including referral to an appropriately trained professional
Consultant Anaesthetist	To provide an antenatal consultation and management plan in labour for women with a BMI > 40kg/m^2.
Medical Staff	Clinical assessment and decision making for plan of management including referral to an appropriately trained professional
Healthy Lifestyle Midwife	• To facilitate and support medical staff and midwives in providing healthy lifestyle information for all women with a BMI > 30kg/m^2 • Provide information on healthy lifestyles to all women with a BMI>30 • To offer a wellbeing appointment at 24 weeks for women with a booking weight of >120kgs, and complete a risk assessment to inform a documented plan of care. • Offer further appointment at home, hospital or local children's centre to discuss options for birth, provide further support where needed. • Signpost women to relevant groups for extra support
Midwives	• To identify the risks and required plan of care with referral to the appropriately trained professional for all women with a BMI > 30kg/m^2 • Record weight of all women at booking, 28 and 36 weeks, and document in the hand held records. • If weight gain >10kg, to refer to healthy lifestyle midwife for guidance, support and review on healthy lifestyles • Offer guidance and discuss birth preparation in relation to BMI
Physiotherapist	• To support with identified physiotherapy requirements following referral form an appropriately trained professional • Support with manual handling requirements

Appendix 2 - LETTER TO GP FOR CONSIDERATION OF ASPIRIN

The National Institute for Health and Clinical Excellence (NICE) published clinical guideline No: 107 – 'Hypertension in Pregnancy: The management of hypertensive disorders during pregnancy' in August 2010. This guideline clearly recommends the use of low dose aspirin to reduce the risk of developing pre-eclampsia in high-risk women.

Women are considered to be at high risk of developing pre-eclampsia, if they have:

1. **Any one of the following high risk factors:**
   - Hypertensive disease during a previous pregnancy
   - Chronic kidney disease
   - Autoimmune disease such as systemic lupus erythematosus or antiphospholipid syndrome
   - Type 1 or type 2 diabetes
   - Chronic hypertension
   - Placental histology placental dysfunction in a previous pregnancy

And/ Or

2. **More than one of the moderate risk factors:**
   - First pregnancy
   - Age 40 years or over
   - Pregnancy interval of more than 10 years
   - Body mass index (BMI) of 35kg/m 2 or more at first visit
   - Family history of pre-eclampsia
   - Multiple pregnancy

As the majority of these women seek your services early in their pregnancy for booking, it would be very helpful if you could identify any woman as high risk for developing pre-eclampsia (any one high risk factor or more than one of moderate risk factors mentioned above) and kindly initiate low dose aspirin therapy **(Aspirin 150 mg daily from 12 weeks of pregnancy until birth of the baby**) if they do not have any contraindications to the same.

Thank you for your assistance in this matter.

Appendix 3 - Ward Equipment List

Ward Area	Hillrom Beds (220kg)	Huntley Beds (180kg)	Couches (ADU/ANC)	Bariatric Chairs	Wheelchair	TED's	Scales	Thigh BP Cuff
Labour	12 Affinity Birthing Beds (Lithotomy load capacity 27kgs)	2 Recovery Beds.	NA	0	1	Stocked Up to size XXXL short	1 Upto 220kgs	4
Maple	0	22	1 Couch (180kg)	0	1 Bariatric (254kgs)	Stocked Up to size XXXL short	1	1
Rowan	6	28	0	1 Bariatric chair 254kg	0	Stocked Up to size XXXL short	0	1
ADU	NA	1	0	0	0	0	1 Upto 250kgs	1
ANC	NA	NA	7 Upto168kgs	0	0	0	1 Upto 300kgs	1
Foyer (W&C)	NA	NA	Bariatric trolley (320kg)	NA	Bariatric trolley coverts to chair	NA	NA	NA
Obstetric Theatre	NA	NA	Table (365kg) Extensions available	1 (Room 4)	0	0	0	0
Community (Separate Risk assessment for each centre)	NA	NA	19 (Vary in weight capacity)	0	0	0	18	11
USS	NA	NA	1	1	0	NA	NA	NA

Hoists available:

Gynae OPD (182kgs/28 stones)

Cedar (182kg / 28 stones)

Acorn (227kg / 36 stones)

Bariatric Boxes

(Box available on each floor)

- Medstrom Information Folder (ordering of equipment guide including contact numbers)
- Thigh Cuff (electronic / manual)
- TED Stockings
- Gowns
- Disposable Pants
- Totes Socks
- Pads
- Tourniquets
- Sling (for Hoist)
- Totes socks

Extra Requirements for Labour Ward

- Traxi and the Traxi extension (cannot be left on)
- Extra-large Doyens
- Compression boots

Appendix 4 - HEALTHY LIFESTYLE MIDWIFE REFERRAL

HULL UNIVERSITY TEACHING HOSPITAL NHS TRUST
Women & Children's Hospital

HEALTHY LIFESTYLE MIDWIFE REFERRAL

This form is to be completed (at booking) on Lorenzo and sent to [redacted]

Referral criteria: All pregnant women with a booking BMI ≥ **30kg/m^2**

PATIENT NAME:

ADDRESS:

DOB

HOSPITAL NO: **TEL NO:**

AT BOOKING:

Weight	**Height**	**BMI**	**Smoker**

CONSENT TO SHARE INFORMATION WITH MULI-AGENCIES: ☐

GESTATION AT REFERRAL DATE…….

SCAN DATE …….

RELEVANT MEDICAL HISTORY/ MEDICATIONS:

SIGNED: **DATE:**

NAME & DESIGNATION:

LOCATION & CONTACT NUMBER:

Appendix 5 - DEFINITIONS

Classification	BMI (kg/m^2)	Risk of obstetric/anaesthetic complications
Normal range	18.5-24.9	No increased obstetric/anaesthetic risk
Overweight	25-29.9	No increased obstetric/anaesthetic risk
Obese I	30-34.9	Mildly increased obstetric/anaesthetic risk
Obese II	35-39.9	Moderately increased obstetric/anaesthetic risk
Obese III	≥40	Significantly increased obstetric/anaesthetic risk

Weight Gain Recommended in Pregnancy for Different BMI categories
Institute of Medicine (2009)

Weight Category	BMI	Recommended weight gain during Pregnancy	Mean KG/Week
Underweight	**<18.5**	**12.5-18.0kg**	**0.5**
Normal Weight	**18.5-24.9**	**11.5-16.0kg**	**0.4**
Overweight	**25-29.9**	**7.0-11.5kg**	**0.3**
Obese	**>30**	**5.0-9.0kg**	**0.2**

Appendix 6 - ^BMI Discussion Checklist

Antenatal (to be completed at 28 weeks by Obstetrician)

- [ ] Miscarriage / Preterm Birth
- [ ] Gestational Diabetes
- [ ] Abnormal fetal growth: macrosomia or intra uterine growth restriction
- [ ] Hypertension and pre-eclampsia
- [ ] Thromboembolism
- [ ] Pelvic Girdle pain
- [ ] Undiagnosed fetal anomaly

- Name: Signature: Date:

Intrapartum (to be completed at 36 weeks by Obstetrician)

- [ ] Failure to progress in labour
- [ ] Shoulder dystocia
- [ ] Difficulty in monitoring the fetal heart / application of FSE
- [ ] Difficult siting of epidural/spinal which may result in inadequate analgesia post insertion
- [ ] Increased risk of Post Partum Haemorrhage
- [ ] Increased risk of Caesarean Section
- [ ] Caesarean section with associated increased morbidity / mortality
- [ ] Risk of failed intubation with general anaesthetic
- [ ] Increased risk of NICU admission

- Name: Signature: Date:

Postnatal (to be completed post delivery by Obstetrician)

- [ ] Wound infection
- [ ] Thromboembolism
- [ ] Lower rates of breast feeding initiation due to mechanical factors, delayed onset of lactogenesis II, hormonal imbalances, psychosocial factors and mammary hypoplasia

- Name: Signature: Date:

Appendix 7 - MONITORING OVERVIEW

Elements to be monitored	Lead	Tool	Frequency	Reporting arrangements	Acting on recommendations and Lead(s)	Change in practice and lessons to be shared
A and B - Calculation and documentation of BMI in the health records and electronic patient information system C and G - Women with BMI> 30 booked for maternity team based care and have a documented antenatal consultation with an appropriately trained professional to discuss possible intrapartum complications D - Documented advice to deliver in obstetric led unit if BMI> 35 E - Documented antenatal consultation with anaesthetist if BMI > 40 F - Documented obstetric anaesthetist management plan for labour and delivery for women with BMI> 40 H - Requirement to assess the availability of suitable equipment in all care settings for women with a high BMI I - For women with a booking BMI > 40 documented assessment in third trimester by appropriately trained professional to determine manual handling requirements for childbirth and tissue viability considerations	Healthy Lifestyle Midwife	Audit tool to monitor compliance with this guideline against requirements A-I	Once within the cycle of the guideline or as required following an identified reason from a risk management episode.	Perinatal Mortality meeting	Identified actions presented to: Senior Staff Meeting Issues for escalation to report to Obstetric & Gynaecology Governance meeting	Changes to practice identified with actions in an agreed timeframe by Healthy Lifestyle Midwife/ Obstetric Consultant lead Reports of progress discussed at Labour Ward Forum Maternity Managers meeting Agreed changes in practice and lessons to be shared communicated and facilitated by Healthy Lifestyle midwife/Obstetric Consultant lead through: Labour ward news letter Supervisors of Midwives Obstetric supervisors Matron Community Midwifery Sisters Hospital area Sisters