University Hospital of North Staffordshire NHS Trust

Achieving Sustainable Quality in Maternity Services

ASQUAM Guidelines for Care of Women with Body Mass Index (BMI) ≥35 during Pregnancy, Delivery and Postnatal Period

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1. PURPOSE OF THE GUIDELINE

The aim of this guideline is to guide health professionals for the care of obese women with a BMI of ≥35 kg/m^2 in antenatal, intrapartum and post partum period.

2. BACKGROUND

Obesity during pregnancy is a risk factor for adverse pregnancy outcomes. This is a major concern in the West, where 28% of pregnant women are overweight and 11% are obese. In the UK population, 33% of women are currently overweight (BMI≥25) and 23% are obese (BMI≥30), a total of 56% over the recommended BMI [1].

The increased risks associated with obesity in pregnancy are well recognised, with half of all maternal deaths being in obese women (CEMACH 2007) and increased incidence of stillbirth and neonatal death (CEMACH 2005). The problem that obesity presents for maternity services is likely to increase, with a prediction that the level of obesity is likely to rise to 40% by 2010 (National Audit Office, 2006).

3. DEFINITION

Obesity is defined in terms of Body Mass Index (BMI) as the ratio of weight in Kilograms (kg) by height in metres squared (m^2). The ideal BMI is 20-25. A BMI of 25-30 is considered overweight and ≥30 is obese. A BMI of ≥35 is moderately obese and ≥40 is morbidly obese [2].

Although WHO classifies women with a BMI of ≥30 as obese (WHO 2000), the risks associated with pregnancy and childbirth are recognised to be significant when the BMI is ≥35 (Bhattacharya 2007). Therefore, for the purpose of this guideline, raised BMI / obesity will be taken to mean ≥35.

Table 1: Classification of Body Mass Index*

Classification	BMI	Risk of co-morbidities
Underweight	<18.5	Low (but increased risk of other clinical problems)
Desirable weight	18.5–24.9	Average
Overweight	25.0–29.9	Mildly increased
Obese	>30.0	
– Class I	30.0–34.9	Moderate
– Class II	35.0–39.9	High
– Class III (severely or morbidly obese)	>40.0	Very high

*Slightly modified version of that used by the International Obesity Task Force

From; Care pathway for the management of overweight and obesity, DH INFORMATION, May 2006, **Gateway ref:** 6236

http://www.dh.gov.uk/assetRoot/04/13/45/60/04134560.pdf

4. RISKS [3]

Maternal

- Infertility/Miscarriage (3 fold increased risk)
- Urinary tract infection/Genital infection
- Gestational diabetes
- Pre eclampsia and Hypertension
- Increased incidence of induction of labour and caesarean section (both elective and emergency)
- Increase anaesthetic complications
- Slow progress in labour

- Shoulder dystocia
- Caesarean section
- Thromboembolism
- Postpartum haemorrhage
- Postnatal infection (genital tract and wound) poor healing
- Increased maternal mortality

Fetal

- Fetal macrosomia, with associated risks of shoulder dystocia
- Higher perinatal mortality
- Foetal anomalies including neural tube defect
- Admission of baby to NICU
- The baby faces a higher risk of macrosomia, congenital anomaly, obesity (in later life) and fetal death (Ramachenderan et al. 2008)

Other Risk / Difficulties

- Moving and handling injuries to mother and staff
- Difficult venepuncture / abdominal examination / blood pressure assessment
- Difficulties with regional anaesthesia and general anaesthesia
- Difficulty in monitoring during labour
- Difficulty in performing ultrasound scans and risk of failure to detect abnormalities

Due to the increasing complication rate, obesity in pregnancy has been selected as CEMACH's principal project with a maternal health focus for 2008-2011 [4]. This focuses on women with BMI ≥35. CEMACH 2000-2003 (Why mothers die) found that approximately 35% of women who died were obese [5.] CEMACH perinatal mortality report 2005 found that

approximately 3% of mothers who had a stillbirth or neonatal death were obese [4].

5. MANAGEMENT

Preconception:

BMI ≥30 is one of the common conditions where pre pregnancy counselling and advice is desirable [4.] Advice on weight reduction and referral to dietician should be considered. Women are recommended to take high dose folic acid (5mg) daily from one month preconception and throughout the first trimester if there is no other indication to continue beyond that gestation.

5.1 Antenatal

Recent studies show that 20-40% of pregnant women in the US and Europe are gaining more weight than is recommended (Cedergren 2006).

Women who gain weight within the recommended ranges are more likely to have better maternal and infant outcomes than those who gain more or less weight (Viswanathan et al. 2008). Among obese women, those who do not gain more that 7kg during pregnancy have fewer complications (Cedergren 2006).

The calculation of the body mass index(BMI) is recorded electronically via Evolution.

The BMI of all women is calculated and recorded on the Customised Growth Chart which is secured within the Pregnancy Notes.

Maternal weight should be measured at the first booking visit to Antenatal Clinic in all women and throughout pregnancy in women who are obese at 28 and 34 weeks gestation.

Women with BMI ≥35 should be referred for Maternity Team Based care by the Community Midwife.

Women with BMI ≥35 should be advised against / discouraged from homebirths and waterbirths. The **need to deliver in the hospital** under the care of a Consultant should be emphasised.

Women with a BMI of ≥35 should have an antenatal consultation under the care of an obstetric consultant to discuss intrapartum complications and this discussion will be documented in the woman's health record.

Early booking visit to plan pregnancy management for all women who are obese:

a) Women with BMI>35 should be prescribed adcal d3 which provides 15 mmol of calcium and 10 microgram colecalciferol per tablet from conception until delivery and to continue postnatally if lactating.

b) Women with severe obesity (BMI greater than 35kg/m^2) plus one additional risk factor for hypertensive disease should be prescribed aspirin 75 mg/day from 12 weeks (Consensus views arising from the 53rd Study Group: Obesity and Reproductive Health)

c) Consider antenatal thromboprophylaxis in the presence of additional clinical risk factors for venous thromboembolic (VTE) disease after a discussion with consultant haematologist.

The Royal College of Obstetricians and Gynaecologists and the American College of Obstetricians and Gynaecologists (Artal and O'Toole 2003) recommend 30 minutes or more moderate physical activity per day for pregnant women. Women who were not physically active before pregnancy are advised to plan a safe exercise programme. About 30% of women of child-bearing age achieve the nationally recommended minimum level of activity (30 minutes of moderately-intense physical activity on 5 or more days a week [DH 2004b]) (The Information Centre 2008).

Offer referral to dietician, if BMI ≥ 40.

All women should undergo an assessment of risk factors for venous thromboembolism (VTE) early in pregnancy. This assessment should be repeated if the woman is admitted to hospital or develops other intercurrent problems [6]. [Refer risk assessment thromboprophylaxis guideline]. TEDS and prophylactic LMWH should be used with hospital admission for women with BMI≥40 [4].

Anaesthetic referral should be offered for women after 24 weeks with a BMI ≥40 by the health professional who is undertaking the antenatal assessment at the relevant time; the woman will be referred to the next available antenatal clinic at which the Anaesthetist is in attendance. That the referral has been made must be recorded in the Pregnancy Notes/Health Record. An obstetric Anesthetic management

plan for Labour and delivery must be discussed with the woman, documented and stored securely in the maternity notes.

BP check with appropriate size cuff should be done. The most common rule of thumb is that if the arm circumference is greater than 13 inches (33 cm) or so, a larger cuff size is definitely needed.

Cuff Size Guidelines: Acceptable Bladder Dimensions for Arms of Different Sizes

Cuff	Arm Circumference Range at Midpoint (cm)
Adult	27-34
Large Adult	35-44
Adult thigh Cuff	45-52

Growth scans are done at 28 weeks and 34 weeks because of difficulty in monitoring growth.

Glucose tolerance test should be done at 28 weeks due to increased risk of gestational diabetes.

The management checklist for BMI great than 35 (see appendix 1) should be used to aid documentation and implementation of antenatal management plan.

5.2 Intrapartum

1. Review case notes for antenatal anaesthetic assessment and obstetric plan. Consider early epidural.

2. Notify duty anaesthetist and duty obstetric registrar of admission, review guidelines and management.

3. Consider ultrasound scan to confirm fetal presentation if any uncertainty.

4. A large bore venous cannula should be inserted and blood taken for full blood count and blood group on admission.

5. Continuous electronic fetal heart monitoring is advised because of the increased perinatal risks. FSE should be applied where there is difficulty in monitoring fetal heart with abdominal CTG.

6. The midwife who conducts the birth should be familiar with the shoulder dystocia guideline and obstetric registrar should be present on delivery suite and aware that delivery is imminent.

7. Encourage use of correctly fitting TED (anti-embolism) stockings.

8. If instrumental delivery is contemplated, careful consideration should be given to performing trial in theatre with an experienced obstetrician (following the usual discussion of risks and alternatives). Obesity is a recognised predictor of abandoned trial, shoulder dystocia and birth injury.

9. Caesarean section
    - Consultant anaesthetist and consultant obstetrician should be notified if BMI is ≥40.
    - Because of the risk of poor wound healing, a delayed absorbable suture such as PDS is advisable, esp. if BMI is ≥40. Subcutaneous fat should be closed to prevent wound infection and dehiscence.[8,9] A redivac drain can be left above the sheath, and interrupted sutures can be used for the skin.[10]
    - Proper equipment for patient handling including theatre table and bed should be used.

5.3 Postpartum

1. Encourage early mobilisation, good hydration and use of properly fitted TED stockings to prevent thromboembolism.

   Complete thromboembolism risk assessment and if f low molecular weight heparin (LMWH) is recommended, ensure adequate dose is prescribed according to patient's early booking weight as per ASQUAM Guideline for the Management Venous Thrombo-embolism.

2. Ensure adequate analgesia dosage is offered, to promote comfort and allow mobilisation.

3. Breast feeding should be strongly encouraged unless there are contra-indications. Obese women have decreased rates of

breastfeeding (initiation and maintenance) but it can help with maternal weight loss postnatally.

4. Encourage good hygiene and be vigilant for signs of postnatal infection as normal involution of the uterus may be difficult to assess abdominally. Obesity carries increased risk of wound and genital tract infection postnatally.

5. Midwives should encourage women to address health issues such as obesity and smoking before they embark on a future pregnancy. As well as reducing risks in future pregnancies this will reduce their overall risks of ill health and death.

6. Reassessment of thromboprophylaxis should be done immediately post delivery.

7. Advice on weight reduction- benefit in next pregnancy.

8. Contraceptive advice [11]

5.4 Availability of Equipment

A copy of the list of equipment available for obese women will be kept each clinical area. The availability of equipment will be audited annually by the Quality and Risk Manager and the outcome reported to the Labour Ward Forum who will oversee the implementation of actions where necessary. The following equipment should be available

- Large adult blood pressure cuff (arm circumference 35-44 cms) all areas including community
- Step on scales for weighing u to 300Kg (antenatal clinic)
- Bariatric Examination Couch in Antenatal Clinical
- Delivery Suite beds to accommodate up to 227Kg
- Theatre Table to accommodate up to 300Kg
- Bariatric Beds available to hire from Huntleigh, when required for use on the Obstetric Wards (Order on Purchase requisition form 24 hours prior to planned patient admission)
- Large TED (Ant embolism) stockings (all areas including community)
- Extra long Spinal and Epidural Needles (18-20cms) for regional anaesthesia

Individual Assessment of Equipment Needs

All women with BMI≥40 should have an assessment of equipment needs carried out in the third trimester. The outcome of the assessment will be recorded on the Equipment Assessment Form (Appendix 2) a copy of which will be secured in the health record and made available to the wards and Delivery Suite prior to the expected date of delivery.

Manual Handling and Tissue Viability

All women with a BMI≥40 must have an assessment in the third trimester of pregnancy to determine their manual handling requirements in child birth. This assessment can be carried out by a Midwife as all Midwives at UHNS are appropriately trained in manual handling requirements (including the care of obese women). In

addition some Clinical Support Workers who have attended the appropriate training may carry out this assessment.

Women must also be referred for consideration of tissue viability issues and this assessment and any requirements must be documented in the health record, and should be carried out within the first 6 hours of admission. This assessment will be completed using the Waterlow score (see Appendix 3) and will be performed by either a Midwife or Clinical Support Worker.

In the Community Setting:

The option to deliver at home for ladies with an increased BMI is not recommended. In the rare event that a women refuses hospital admission the situation will be risk assessed and actions taken as appropriate. The mother's own bed and facilities will be utilized. The Midwife will ensure he/she has a Large Adult Blood Pressure Cuff and TED Stockings as described above. These cases should be referred to Supervisor of Midwives for further discussion. The risks must be fully explained to the women and documented in the health records. The obstetric Consultant–should be involved in the risk assessment and action planning. All discussions/assessments must be documented within the health records.

6. METHODS OF CONTRACEPTION THAT CAN BE USED WITHOUT RESTRICTION

Progestogen-only pill, progestogen- only injectables and implants, copper intrauterine devices, the levonorgestrel-releasing intrauterine system, barrier methods, and natural family planning.

Combined oral contraceptives:

- Can generally be used (advantages generally outweigh the risks) in women with class I obesity (BMI 30–34 kg/m^2).
- Are not usually recommended (risks usually outweigh the advantages) for women with class II obesity (BMI 35–39 kg/m^2).
- Should not be used (because of unacceptable risk) in women with class II obesity (BMI ≥ 40 kg/m^2).

Quick reference guide

BMI ≥35	**BMI ≥40**
1. Consultant led care	1,2,3 +
2. Growth scans	4. Offer Anaesthetic referral
3. Glucose tolerance test	5. Offer referral to dietician

7. MONITORING AND AUDIT

The need to monitor/audit the standards set out below will be considered alongside other Directorate requirements and prioritised accordingly. The Directorate Clinical Audit programme is drafted by the Directorate Clinical auditor, in liaison with clinical staff, and approved by the Directorate.

Element to be monitored	Lead	Tool	Frequency	Reporting arrangements	Acting on recommendations and lead(s)	Change in practice and lessons to be shared
the calculation of the body mass index (BMI) and documentation of the BMI in the health records	Directorate Clinical Auditor	On-going CNST Data Collection	Audit of ≥ CNST compliant sample size (e.g. 1% or 1 sets) reported annually	Directorate Business, Performance and Clinical Governance Meeting **(DBP&CG Meeting)**	Required actions will be identified and completed in a specified timeframe as per the audit action plan. These will be monitored and approved by the DBP&CG Meeting	Required changes to practice will be identified and actioned within a specific timeframe as per the audit action plan and, in addition, lessons will be shared with relevant stakeholders as per audit action plan.
the calculation of the body mass index (BMI) and recording of the BMI in the electronic patient information system	Directorate Clinical Auditor	On-going CNST Data Collection	Audit of ≥ CNST compliant sample size (e.g. 1% or 1 sets) reported annually	DBP&CG Meeting	Required actions will be identified and completed in a specified timeframe as per the audit action plan. These will be monitored and approved by the DBP&CG Meeting	Required changes to practice will be identified and actioned within a specific timeframe as per the audit action plan and, in addition, lessons will be shared with relevant stakeholders as per audit action plan.
that all women with a BMI ≥35 should be advised to book for maternity team based care	Directorate Clinical Auditor	Rolling Audit Programme	Every three years	DBP&CG Meeting	Required actions will be identified and completed in a specified timeframe as per the audit action plan. These will be monitored and approved by the DBP&CG Meeting	Required changes to practice will be identified and actioned within a specific timeframe as per the audit action plan and, in addition, lessons will be shared with relevant stakeholders as per audit action plan.
that all women with BMI ≥35 should be advised to deliver in an obstetric led unit	Directorate Clinical Auditor	Rolling Audit Programme	Every three years	DBP&CG Meeting	Required actions will be identified and completed in a specified timeframe as per the audit action plan. These will be monitored and approved by the DBP&CG Meeting	Required changes to practice will be identified and actioned within a specific timeframe as per the audit action plan and, in addition, lessons will be shared with relevant stakeholders as per audit action plan.
that all women with a	Directorate Clinical Auditor	On-going CNST Data	Audit of ≥ CNST compliant sample	DBP&CG Meeting	Required actions will be identified and	Required changes to practice will be identified and actioned

Element to be monitored	Lead	Tool	Frequency	Reporting arrangements	Acting on recommendations and lead(s)	Change in practice and lessons to be shared
BMI ≥40 being offered an antenatal consultation with an obstetric anaesthetist		Collection	size (e.g. 1% or 1 sets) reported annually		completed in a specified timeframe as per the audit action plan. These will be monitored and approved by the DBP&CG Meeting	within a specific timeframe as per the audit action plan and, in addition, lessons will be shared with relevant stakeholders as per audit action plan.
that an obstetric anaesthetic management plan for labour and delivery should be discussed with the woman and documented in the health record	Directorate Clinical Auditor	On-going CNST Data Collection	Audit of ≥ CNST compliant sample size (e.g. 1% or 1 sets) reported annually	DBP&CG Meeting	Required actions will be identified and completed in a specified timeframe as per the audit action plan. These will be monitored and approved by the DBP&CG Meeting	Required changes to practice will be identified and actioned within a specific timeframe as per the audit action plan and, in addition, lessons will be shared with relevant stakeholders as per audit action plan.
that all women with a BMI ≥35 should have an antenatal consultation with an obstetric consultant to discuss possible intrapartum complications, the discussion must be documented in the health record	Directorate Clinical Auditor	On-going CNST Data Collection	Audit of ≥ CNST compliant sample size (e.g. 1% or 1 sets) reported annually	DBP&CG Meeting	Required actions will be identified and completed in a specified timeframe as per the audit action plan. These will be monitored and approved by the DBP&CG Meeting	Required changes to practice will be identified and actioned within a specific timeframe as per the audit action plan and, in addition, lessons will be shared with relevant stakeholders as per audit action plan.
the requirement to assess the availability of suitable equipment in all care settings for women with a high BMI	Directorate Clinical Auditor	On-going CNST Data Collection	Audit of ≥ CNST compliant sample size (e.g. 1% or 1 sets) reported annually	DBP&CG Meeting	Required actions will be identified and completed in a specified timeframe as per the audit action plan. These will be monitored and approved by the	Required changes to practice will be identified and actioned within a specific timeframe as per the audit action plan and, in addition, lessons will be shared with relevant stakeholders as per audit action plan.

Element to be monitored	Lead	Tool	Frequency	Reporting arrangements	Acting on recommendations and lead(s)	Change in practice and lessons to be shared
					DBP&CG Meeting	
the requirement for women with a booking BMI ≥40 to have an individual documented assessment in the third trimester of pregnancy by an appropriately qualified professional to determine manual handling requirements for childbirth and consider tissue viability issues	Directorate Clinical Auditor	On-going CNST Data Collection	Audit of ≥ CNST compliant sample size (e.g. 1% or 1 sets) reported annually	DBP&CG Meeting	Required actions will be identified and completed in a specified timeframe as per the audit action plan. These will be monitored and approved by the DBP&CG Meeting	Required changes to practice will be identified and actioned within a specific timeframe as per the audit action plan and, in addition, lessons will be shared with relevant stakeholders as per audit action plan.

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Appendix 1 - Management checklist for BMI ≥35

Gestation (weeks)	**Action**	**By** (Name, Signature)	**Date**
Booking visit	***Your Weight in Pregnancy (High BMI)*** Patient information leaflet		
	Obstetric ANC referral		
	Anaesthetic referral **if BMI>40**		
	Arrange GTT for 28 weeks		
	Commence Vit D +/- Aspirin		
	VTE assessment		
28	Obstetric Review and Discussions Antenatal risks Intrapartum risks and complications Recommend delivery at CDS		
	VTE assessment		
	Check weight **kg**		
	GTT result **Normal** **Abnormal**		
34	VTE assessment		
	Check weight **kg**		
	Manual handling and equipment needs assessment **if BMI>40**		
	Waterlow score **if BMI>40**		
>24	Anaesthetic management plan **if BMI>40**		

Appendix 2 – Equipment Checklist

NAME: …… UNIT NUMBER:……. DATE:……

EDD:…….

Equipment	Required in Hospital	Required in Community
Large Adult Blood Pressure Cuff (Arm circumference 35-44cms)		
Step on Scales for weighing up to 300Kg		
Bariatric Examination Couch in Antenatal Clinic		
Delivery beds to accommodate up to 227Kg		
Hover Mattress for transfer from bed to Theatre Table		
Theatre Tables to accommodate up to 300Kg		
Large TED (Anti Embolism) Stockings		
Extra Large TED (Anti Embolism) Stockings		
Flowtron Boots		
Extra long Spinal and Epidural Needles (18-20cms) for regional anesthesia		
Adapted bathrooms		
Bariatric Beds available to hire, when required, from Huntleigh, for use on the Obstetric Wards (Order on Purchase requisition form 24 hrs prior to planned patient admission)		

Form to be completed and reviewed during the antenatal period.
Copy of the form to be made available to Delivery Suite and the Wards prior to EDD and a copy to be placed in the woman's hand held record

Pressure Ulcer Risk Assessment Documentation and Prevention Guide

Please complete this form for ALL patients by referring to the guidelines for Prevention and Management of Pressure Ulcers

Patient name: _____

Unit number: □□□□□□

Date of birth: □□/□□/□□

Clinical area: _____

Date of admission: □□/□□/□□ Time of admission: □□:□□ (24 hour clock)

Date of assessment: □□/□□/□□ Time of assessment: □□:□□ (24 hour clock)

Date of discharge/transfer: □□/□□/□□ Time of discharge/transfer: □□:□□ (24 hour clock)

(On transfer/discharge please fill in communication form if pressure ulcer is present)

Please complete table below for ALL assessments using the Waterlow/North Staffordshire Pressure Ulcer Risk Assessment tool

WATERLOW/NORTH STAFFORDSHIRE ASSESSMENT SCORE													Mattress (see flow chart) eg. Specialist Foam Support mattress or Alternating Air Mattress etc.	Stirling Pressure Severity Scale (If more than 1 pressure ulcer give stage for worst	Has care plan been formulated for identified risk factors? Sign name* Y/N
Date	Time	Build/ weight for height	Continence	Skin type over risk areas	Mobility	Sex/ Age	Appetite/ dietary intake	Tissue malnutrition	Neuro deficit	Major surgery/ Trauma	Medication	Total Score			

* Guidance notes

Care plans should reflect the guidelines for Prevention and Management of Pressure Ulcers and you should consider the following areas:

a) Prevention (if score >10)
Physiotherapy services if appropriate, position change/30 degree tilt, seating, nutritional assessment, continence, excess moisture elimination, verbal/written information given to client/carer, inspection and documentation of pressure areas, verbal communication of risk.

b) Management (if pressure ulcer is present)
Elimination of pressure/shear/friction, nutritional intervention, topical wound care, pain management, appropriate referrals

Waterlow/North Staffordshire Pressure Ulcer Risk Assessment

Circle scores which apply. Add total scores. Several scores per category can be used

Build/Weight for Height

This can be assessed in a number of ways (eg demispan, Body Mass Index) further details can be obtained from local nutrition standards/ policies.

Where this is not possible, use visual assessment.

Average (Normal, Acceptable) 0

Above Average (Overweight) 1

Obese (Very overweight) 2

Below Average (Underweight, thin, emaciated or recent substantial weight loss) 3

Continence

Continent or total containment of urinary incontinence eliminating risk of skin contamination (eg catheter/sheath/ pad/etc) 0

Ineffective management or urinary incontinence with risk of skin contamination 1

Faecal incontinence 2

Skin Type over visual risk areas

Healthy 0

Tissue Paper 1

Dry 1

Oedematous 1

Clammy (e.g. due to temperature) 1

Discoloured (Include grade 0 and 1 pressure ulcers/ discolouration due to scar tissue/healed pressure ulcers) 2

Broken spot (e.g. existing pressure ulcer) 3

Mobility

Fully 0

Restless/Fidgety (Due to underlying physical/mental condition which may contribute to friction/shearing) 1

Apathetic (Due to mental health/ depression/sedation/night sedation/analgesia/reduced conscious level) 2

Restricted (Walking only occasionally, majority of time spent in bed/chair. Makes slight changes in position independently) 3

Inert/Traction/ Ventilated (Makes no changes in body position that may relieve pressure on vulnerable areas, without assistance, and/or on traction) 4

Chairbound (Unable to bear own weight and/or must be assisted into chair) 5

Sex/Age

Male 1

Female 2

14 - 49 1

50 - 64 2

65 - 74 3

75 - 80 4

81+ 5

Appetite/Dietary intake

Average (Usual appetite/eats all meals and drinks offered at meals and between meals/having enteral feeds or adequate oral nutritional supplements) 0

Poor (Leaves most of food offered at mealtimes) 1

NG tube for drainage and/or clear fluids only (Include adequate IV fluids or being established on enteral feeding) 2

NBM/Anorexic (No diet/fluids taken/ no IV fluids) 3

Special Risks

Tissue Malnutrition

Terminal cachexia (A state of severe muscle wasting occurring in the late stages of serious illness eg cancer. Usual bodily decline in the dying person after long debilitating illness) 8

Uncontrolled cardiac disease (eg. shock) 5

Uncontrolled respiratory disease (eg. pneumonia) 5

Peripheral vascular disease/Inatrophic drug therapy/Intra aortic balloon pump support (Score when evidence of poor peripheral perfusion) 5

Anaemia 2

Current smoking or stopped within last 6 months 1

Anorexia Nervosa 5

Neurological deficit

As a result of eg diabetes, MS, CVA, motorsensory deficit, paraplegia (Score for CVA only when there has been resulting motorsensory loss) 5

Major Surgery/Trauma

Orthopaedic - below waist, spinal (eg. fractured neck of femur/spinal fracture) 5

On theatre table over 2 hours (Score only for first 48 hr following surgery unless patient remains severely ill) 5

Medication

Current cytotoxics and/or High dose steroids or on long term steroids (not including short courses of steroids) 4

10 + At risk
15 + High risk
20 + Very high risk

Score =

Care Pathway - BMI ≥ 35

Gestation (weeks)	Purpose of Visit	Location/ Clinician	Appointment Date & Time
6-10	Booking history Booking bloods VTE assessment Refer anaesthetic review if BMI>40 Lifestyle programme Patient information leaflet	**CMW**	
11-13	Dating scan	**Community scan**	
16-18	Antenatal assessment Offer Quadruple Test	**CMW**	
18-20	Anomaly scan	**Community scan**	
25 **First pregnancy only**	Antenatal assessment Mat B1	**CMW**	
28	Growth scan Obstetric Review Repeat bloods Mat B1 (multips) Check weight and VTE assessment	**ANC/Scan**	
	Anti D if required	**ANC**	
	GTT		
31 **First pregnancy only**	Antenatal assessment	**CMW**	
34	Growth scan Obstetric Review Check weight and VTE assessment Manual handling and equipment needs assessment if BMI>40 Waterlow score if BMI>40	**ANC/Scan**	
36	Antenatal assessment Birth Plan	**CMW**	
38	Antenatal assessment	**CMW**	
40 **First pregnancy only**	Antenatal assessment Offer membrane sweep	**CMW**	
41	Antenatal assessment Offer membrane sweep Book IOL T^{+12-14}	**CMW**	