The Princess Alexandra Hospital NHS Trust

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WOMEN'S & CHILDREN'S BUSINESS UNIT

MULTI-DISCIPLINARY GUIDELINES

Obesity in Pregnancy Guidelines

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Target audience:	Obstetricians, Midwives and Anaesthetic Team

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Contents

Guideline development

Purpose

This guideline exists to support the health professionals in providing appropriate care for obese pregnant women so as to improve the outcome of their pregnancies.

This guideline has been formulated to give an overview of current service provision for obese women in pregnancy.

Development Process/Stakeholders

This guideline is for the midwifery, obstetric and anaesthetic team and has been updated taking into consideration the current evidence available. The guideline was developed by a clinical specialist. The consultation process included comments sought from the Obstetric Consultants, Lead Anaesthetist, Midwifery Managers and Supervisors of Midwives. As with all new and revised guidelines, it was sent to the Labour Ward Forum Lay Representatives for comments prior to being ratified at the Clinical Risk Management Team Meeting and noted and endorsed by the Nursing, Midwifery and OPD Practice Group and the Trust Governance Committee.

Implementation

This guideline can be found within the guideline folders situated in the labour ward, a master copy in paper form is kept by the Clinical Governance & Risk Midwife and in electronic form by the head of midwifery's PA. It is also available in electronic version available to all staff by accessing the Trust Polices Icon on the desk top or public folders/Intranet. Information on new and updated guidelines is disseminated through the Women's Health newsletter, Ward Managers, Supervisors of Midwives and Obstetric Tutor/Lead Doctors. The previous electronic version is archived by the Head of Midwifery's PA and the Trust Clinical Effectiveness Department. A paper copy is archived by the Governance/Risk Midwife and the Trust Clinical Effectiveness Department.

Training

Midwives, Nurses and support staff attend annual manual handling training and training on the use of specialist equipment for pregnant women.

Guidelines for Obesity in Pregnancy

Introduction

Obesity in pregnancy has been selected as CEMACH's principal project with a maternal health focus for 2008-2011.

There is substantial evidence that obesity in pregnancy contributes to increased morbidity and mortality for both mother and baby. For example, the CEMACH Maternal Death Enquiry (Why Mother's Die) found that approximately 35% of women who died (who had a recordable Body Mass Index) in the 2000-2003 triennia were obese (i.e. had a BMI of 30 or greater). The CEMACH Perinatal Mortality 2005 Report found that approximately 30% of the mothers who had a stillbirth or a neonatal death were obese. Recent CEMACH (2007) report indicated that more than half of the women who died from direct / indirect causes were obese and highlighted an urgent need to establish National Guideline for management of obesity in pregnancy.

Definition

Obesity is defined by World Health Organisation (WHO) (1998) and the National Institute of Health (1998) as a Body Mass Index (BMI) of ≥ 30. BMI is a simple index of weight-for-height that is commonly used to classify underweight, overweight and obesity in adults. It is defined as the weight in kilograms divided by the square of the height in metres (kg/m2). For example, an adult who weighs 70kg and whose height is 1.75m will have a BMI of 22.9.

NICE guidance:

- recommends that pregnant women should have their Body Mass Index (BMI) checked at booking
- recommends that pregnant women with BMI ≥35 should not have routine Midwifery Care
- Women with BMI ≥ 35 are at higher risk of VTE and gestational diabetes

Calculating and Recording the Body Mass Index (BMI)

Obesity is measured by calculating the body mass index (BMI) using the formula:

BMI = WEIGHT divided by the HEIGHT squared in metres.

BMI	Classification
<18.5	Underweight
18.5 - 24.9	Normal weight
25 - 29.9	Overweight
30 – 39.9	Obese
40 or more	Morbidly obese

The Calculation and Recording of the BMI for ALL Women

Every woman's weight, height and BMI should be calculated by the general practitioner/midwife and recorded on the maternity bed booking form. The midwife should ensure it is documented in the hand held notes at the booking appointment.

Agreed BMI for which Women must be referred for consultant led care and offered an Antenatal Assessment with an Obstetric Anaesthetist

All pregnant women with a BMI $\geq$35 at booking must be referred for consultant led care where they will be offered a referral for an antenatal assessment with an obstetric anaesthetist.

Accountabilities and Responsibilities

The practitioner must exercise professional judgement and apply knowledge and skills in each individual situation in which care is to be given.

When obesity is identified, as per NICE Guidance, either by the GP or midwife, the women should be informed of the risks, given dietary advice and specific information (leaflet) concerning maternal and fetal risks of obesity in pregnancy. All discussions and advice given should be documented in the hand held maternity notes.

At the booking interview the midwife should identify all women with a BMI ≥ 30 and arrange for a GTT at 24 - 28 weeks, those that have a BMI ≥ 35 should be referred for Consultant led care.

The obstetrician seeing the woman in the hospital antenatal clinic should discuss the risks associated with obesity and offer referral for an antenatal anaesthetist appointment. All discussions, advice given and referrals should be documented in the woman's hand held records.

Consultation with an anaesthetist should include risks associated with general and regional anaesthesia. A plan should be documented in the notes for the provision of care in case of operative delivery including equipment, grade of staff that should attend and need for HDU.

Risks of obesity in pregnancy

Obese women have an increased risk for the following

Maternal

Antenatal Risks

- Miscarriage
- Gestational Diabetes
- Hypertension / pre-eclampsia
- Difficulty monitoring the fetus during ante and intrapartum period

Intapartum Risks

- Pre-term labour
- Prolonged labour
- Caesarean/instrumental vaginal deliveries
- Shoulder dystocia
- Increased incidence of perineal trauma
- Increased incidence of genital and urinary tract infection

Post partum Risks

- Thromboembolism
- PPH
- Post Caesarean wound infection
- Intrauterine death / Stillbirth
- Reduced breast feeding rate

Anaesthetic Risks

- Difficult airway/intubation
- Aspiration
- Difficulty sitting Regional block
- Difficult to oxygenate/ventilate due to intra abdominal pressure
- Non invasive BP monitoring unreliable in morbid obesity

- Frequent need for HDC

General Risks

- Health and safety issue staff manual handling
- Need for suitable equipment (beds, transfer aids, operating tables, etc)

Infant

- Intrauterine death
- Early neonatal death
- Increased birth weight / macrosomia
- Neural Tube defects
- Hypoglycaemia
- Meconium aspiration
- Child adiposity

Antenatal Care

BMI ≥ 30 – 34.9

This group has mildly increased obstetric and maternal risks. All women should be offered testing for gestational diabetes (GTT at 24 – 28 wks) Women should be informed of the risks, given dietary advice and specific information (leaflet) concerning maternal and fetal risks of obesity in pregnancy. All discussions and advice given should be documented in the hand held maternity notes.

BMI ≥ 35

- Be referred as early as possible for consultant led care
- Be referred timely and appropriately for pre-existing medical problems
- Be offered testing for gestational diabetes (GTT at 24 - 28 wks)
- Have an open discussion on obesity including associated problems / risk to both the woman and the baby
- Be advised on the benefits of moderate exercises and healthy eating and referred to a dietician if help required
- Early scan to confirm dating
- All women with BMI ≥ 35, regardless of parity, must be offered referral to a consultant anaesthetist for assessment regardless of mode of delivery.

- Schedule of antenatal care to reflect risk

- Have a written plan of care for pregnancy, labour and delivery which is documented in the case notes so that it is available to all staff

- All women BMI>35 should be advised against / discouraged from having homebirths and water births

- Serial scans to assess fetal growth if difficult to assess clinically.

Intrapartum

- Have a written plan of care for labour and delivery document in case notes so that it is available to all staff.

- Anaesthetic & Obstetric consultant and Labour Ward Clinical Specialist to be informed on arrival to LW of any patient with BMI ≥ 35.

- Ensure that correct large size BP pressure cuff is available and used. Invasive blood pressure monitoring to be considered if non-invasive monitoring is difficult, for cases done in theatre.

- Anaesthetic & Obstetric middle grade to be around at the time of delivery

- Beware of risk of difficult fetal monitoring, shoulder dystocia, difficult spinal/epidural, difficult intubation, and difficulty during CS, Post Partum Haemorrhage

- If elective delivery communication with personnel working on the day should take place in advance so that appropriate equipment is available.

- Operative delivery experienced obstetrician should perform the delivery

- IV access with a large gauge cannula.

- Hydration, early mobilization and graduated compression stockings after any operative delivery

- Assess pressure areas and maintain skin integrity; check pressure areas two hourly and document.

- Manual handling assessment to ensure correct equipment is available and used.

- Adequate analgesia should be provided; if regional analgesia is the preferred choice of pain relief, epidural catheter should be sited early.

Postnatal Care

- Early mobilisation

- Consider thromboprophylaxis therapy even after vaginal delivery

- Consider referral for postnatal physiotherapy where appropriate
- Assess caesarean section wound and observe for signs of dehiscence; advise the women to ensure that the wound is kept dry.
- Vigilance regarding signs of secondary PPH
- Encourage skin to skin contact and support breast feeding
- Give advice on signs of DVT and PE
- Advise on life style modification - loose weight, exercise
- Contraception

Assessment of the availability of Suitable Equipment in ALL Care Settings for Women with a High BMI

The Maternity department should have a central list of all available Trust manual handling equipment for obese women including the weight limits and location of each item.

Doors should be wide enough to facilitate access for specialist equipment for obese women.

The following equipment should be available within Maternity department:

- Large blood pressure cuffs with bladder dimensions of 12 x 40 cm
- Step-on scales for weighing up to 300kg
- Operating table that supports weight up to 300kg
- Extra long spinal and epidural needles (18 – 20 cm) for regional analgesia
- A combined spinal epidural kit.
- A theatre that is readily equipped for a morbidly obese woman

Elective caesarean sections may have to be done in main theatre for morbidly obese women with access to ITU/HDU and suitable equipment

All ward managers are responsible for ensuring the availability of suitable equipment in their area for women with a high BMI

Auditable Standards

BMI calculated and recorded within the maternity notes at booking.

All women BMI ≥ 35 are referred for consultant led care, offered antenatal assessment with obstetric anaesthetist and advised to deliver in hospital.

All areas will have suitable equipment for women with high BMI.

Audit/Monitoring

Responsibility

Antenatal lead consultant will be responsible for auditing implementation of these guidelines.

All ward managers are responsible for auditing the availability of equipment in their areas.

Methodology

1% of all health records of women who have delivered will be chosen at random from the previous three months deliveries to monitor the calculated and recorded BMI as part of the record keeping audit.

In addition a minimum of eight sets of health records of women with BMI ≥35 will be identified and audited against receiving consultant led care and offered antenatal anaesthetic assessment and place of delivery.

Ward/community managers will check their areas for available equipment for women with high BMI against the recommended equipment, any barriers to implementation will be risk assessed and added to the local risk register.

Frequency

Annual record keeping audit and annual audit of Health records of women with BMI ≥ 35 .

Annual audit of available equipment in all care settings.

Monitoring Deficiencies

Audit results and recommendations are discussed and reviewed at the maternity/anaesthetic governance/audit multidisciplinary meetings. Minutes and audit recommendations are disseminated to staff unable to attend through maternity newsletters/ward managers, supervisors of midwives and clinical tutors/lead Doctors. Where monitoring has identified deficiencies, action plans will be produced and monitored by the lead antenatal consultant, lead anaesthetist and associate Director/Head of midwifery. Any barriers to implementation will be risk assessed and added to the local risk register.

Associated Documents

Women`s and Children`s Business Unit Diabetes Guidelines
Women`s and Children`s Business Unit Booking and Antenatal Risk Assessment Guidelines
Trust Minimal Manual Handling policy No 181
Women`s and Children`s Business Unit Thromboprophylaxis in Pregnancy, Labour and Postpartum

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