Obesity in pregnancy

Clinical Guideline Presentation v4.0

45 minutes
Towards your CPD Hours
Body Mass Index (BMI)

- Weight in kilograms divided by the square of the height in metres (kg/m²)
- Calculate BMI at entry to care
  - Use pre-pregnancy weight if known
  - Use first weight if unknown
- Ethnic variations on health risk
  - Asian: at lower BMI
  - Polynesian at higher BMI
## Classification of BMI

<table>
<thead>
<tr>
<th>Classification</th>
<th>BMI (kg/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>&lt;18.5</td>
</tr>
<tr>
<td>Normal</td>
<td>18.5–24.9</td>
</tr>
<tr>
<td>Overweight</td>
<td>25–29.9</td>
</tr>
<tr>
<td>Obese I</td>
<td>30–34.9</td>
</tr>
<tr>
<td>Obese II</td>
<td>35–39.9</td>
</tr>
<tr>
<td>Obese III</td>
<td>≥ 40</td>
</tr>
<tr>
<td>Extreme (as per QCG guideline)</td>
<td>≥ 50</td>
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</table>
Referral and transfer

- Plan care in consultation with the woman
- Use local criteria for transfer based on BMI
- Ideally, determine the need for transfer prior to onset of labour
If recommendations declined

• If transfer or other care recommendations declined:
  ◦ Ensure the woman understands the risks, concerns and possible scenarios
  ◦ Conduct an individual risk assessment and formulate a risk management plan
  ◦ Document clear and detailed record of all conversations
Risks in pregnancy

- Obese women more likely to be single, of lower socio-economic status and to smoke
- Obesity is more prevalent in Indigenous women
- The higher the pre-pregnancy BMI, the greater the associated risk of maternal and neonatal complications
<table>
<thead>
<tr>
<th>Antenatal</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preeclampsia</td>
<td>Anaesthetic difficulties</td>
</tr>
<tr>
<td>Thromboembolic disease</td>
<td>VBAC less likely</td>
</tr>
<tr>
<td>Diagnosis of congenital abnormalities</td>
<td>Operative /caesarean birth more likely</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Reduced breastfeeding</td>
</tr>
<tr>
<td>Maternal mortality</td>
<td>Wound infections</td>
</tr>
<tr>
<td>Obstructive sleep disorder</td>
<td>Postpartum haemorrhage</td>
</tr>
<tr>
<td>Preterm birth</td>
<td>Thromboembolic disease</td>
</tr>
<tr>
<td>Depression</td>
<td>Macrosomia</td>
</tr>
<tr>
<td>Difficulties with abdominal assessment</td>
<td>Neurodevelopmental disorders</td>
</tr>
</tbody>
</table>
Planning pregnancy

• Provide pre-conceptual counselling about:
  ◦ The benefits of weight optimisation before and between pregnancies
  ◦ Risks associated with obesity in pregnancy
  ◦ Stabilising weight loss prior to conception to avoid impact of weight loss on fetus

• Routinely offer referral to dietitian services

• Screen for hypertension and Type 2 diabetes (especially if previous GDM)
Supplements

• Recommend Folic Acid 5 mg daily until end of the first trimester
  ◦ Obese women have lower levels of folate

• Obese women are at increased risk of Vitamin D deficiency
Antenatal care

• Develop an individual care plan that identifies:
  ◦ Schedule of visits
  ◦ Referrals required (dietician, anaesthetist, lactation consultant, mobility assessment, other specialist/s)
  ◦ Intended place of birth
Previous bariatric surgery

- Ascertain and document the type of bariatric surgery
- Routinely use a multi-disciplinary health care approach (refer to dietitian)
- High index of suspicion for complications which may present as common pregnancy complaints
- Continue nutritional supplements and consider evaluation of deficiencies
Assessment

• Comprehensive history
• Assess for risk factors of preeclampsia
• Test for diabetes at the initial visit
• Establish baseline renal and liver function
• Actively assess risk of VTE
• Early anaesthetic assessment if BMI > 40 kg/m²
Weight measurement

- Weigh at each antenatal visit
- Review the pattern and rate of gain relative to desired GWG

<table>
<thead>
<tr>
<th>Pre-pregnancy BMI</th>
<th>Gain/week trimester 2+3</th>
<th>Total gain (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 18.5</td>
<td>0.45 kg</td>
<td>12.5 to 18</td>
</tr>
<tr>
<td>18.5 to 24.9</td>
<td>0.45 kg</td>
<td>11.5 to 16</td>
</tr>
<tr>
<td>25.0 to 29.9</td>
<td>0.28 kg</td>
<td>7 to 11.5</td>
</tr>
<tr>
<td>≥ 30.0</td>
<td>0.22 kg</td>
<td>5 to 9</td>
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</tbody>
</table>
Psychosocial support

- Provide information about impact of obesity on pregnancy
- Offer referral and support for adoption of a healthy lifestyle
- Maintain awareness that depression is a key determinant for weight gain/obesity
- Reflect on own attitudes to the care of obese women
Fetal surveillance

- Obesity can limit the accuracy and effectiveness of clinical and ultrasound examinations
- Growth scan at 28-32 weeks gestation to aid detection of late onset fetal growth restriction
- Consider serial scanning if growth issues
Nutrition

• Follow nutritional advice as per Australian Dietary Guidelines
• Routinely offer nutritional consultation (ideally with a dietitian)
• Encourage adherence to target weight gains
Physical activity

• Recommend 30 minutes of physical activity on most days of the week
• Individually assess and discuss contraindications and indications to stop physical activity
• Discuss modifications to physical activity as pregnancy progresses
Mode and timing of birth

- Successful VBAC less likely
- Early anaesthetic involvement needed
- Higher incidence of induction of labour (IOL) and failed IOL
- Obesity alone is not an indication for elective caesarean section or IOL, but a lower threshold for IOL at term due to the increased risk of stillbirth may be appropriate
Intrapartum care

• Use a team approach with frequent communication between care providers
• Early notification of anaesthetist and theatre staff when obese women in labour
• Ensure bariatric equipment available
Intrapartum

• Continuous fetal monitoring if BMI > 40 kg/m²
• Consider internal fetal monitoring if external monitoring trace unsatisfactory
• Water immersion is not recommended if BMI > 35 kg/m²
• Maintain an awareness for increased risk of PPH
Caesarean section

• Ensure sufficiently skilled, experienced and credentialled staff available

• Consider:
  ◦ Requirement for procedures and devices to elevate the panniculus
  ◦ Use of negative pressure dressings on closure
  ◦ Suturing of the subcutaneous tissue space
  ◦ Higher dose antibiotics for routine prophylaxis
Postpartum care

- More frequent clinical observation due to increased risk of:
  - Aspiration from airway compromise and/or obstructive sleep apnoea
  - Infection (chest, urinary, wound or breast)
- Actively assess requirement for VTE prophylaxis
- Encourage early mobilisation
  - Consider pressure area care
Breastfeeding

• Less likely to initiate with reduced duration and exclusivity
• Refer to lactation consultant
• Provide early postpartum feeding support
• Time discharge to assist establishment of breast-feeding
Discharge

• Encourage postpartum weight management
• Provide information about the benefits of inter-pregnancy weight loss
• If hormonal contraception used, conduct a risk assessment for VTE