

# Queensland Clinical Guidelines

*Translating evidence into best clinical practice*

## Maternity and Neonatal **Clinical Guideline**

### Supplement: Obesity in pregnancy

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## 1 Introduction

This document is a supplement to the Queensland Clinical Guideline *Obesity in pregnancy*. It provides supplementary information regarding guideline development, makes summary recommendations, suggests measures to assist implementation and quality activities and summarises changes (if any) to the guideline since original publication. Refer to the guideline for abbreviations, acronyms, flow charts and acknowledgements.

### 1.1 Funding

The development of this guideline was funded by the Healthcare Innovation and Research Branch, Queensland Health. Consumer representatives were paid a nominal fee. Other working party members participated on a voluntary basis.

### 1.2 Conflict of interest

Declarations of conflict of interest were sought from working party members as per the Queensland Clinical Guidelines [Conflict of Interest](#) statement. No conflict of interest was identified

### 1.3 Guideline review

Queensland Clinical Guidelines are reviewed every 5 years or earlier if significant new evidence emerges. Table 1 provides a summary of changes made to the guidelines since original publication.

Table 1. Summary of change

Publication date	Identifier	Summary of major change
March 2010	MN1003.14-V1-R13	First publication
August 2011	MN10.14-V2-R13	Review date extended. Identifier updated. Program name updated
September 2011	MN10.14-V3-R15	Appendix B: Modifications to wording of "Suggested responsibilities for referral" to indicate <i>optional</i> nature of transfer and referral based on BMI and the need for <i>individual assessment</i>
March 2013	MN10.14-V4-R15	Section 1. General principles of care added Appendix B: Suggested responsibilities for referral removed. Local strategies to optimise care added
December 2015	MN15.14-V5-R20	Full review and update Flowchart added. Additional detail on weight management strategies. Supplement created.

## 2 Methodology

Queensland Clinical Guidelines (QCG) follows a rigorous process of guideline development. This process was endorsed by the Queensland Health Patient Safety and Quality Executive Committee in December 2009. The guidelines are best described as 'evidence informed consensus guidelines' and draw from the evidence base of existing national and international guidelines and the expert opinion of the working party.

### 2.1 Topic identification

The topic was identified as a priority by the Statewide Maternity and Neonatal Clinical Network at a forum in 2009.

### 2.2 Scope

The scope of the guideline was determined using the PICO Framework (Population, Intervention, Comparison and Outcome) as outlined in Table 2.

Table 2. PICO Framework

PICO	
<b>Population</b>	Obese (BMI > 30 kg/m <sup>2</sup> ) pregnant women
<b>Intervention</b>	Assessment and management of obese women during pregnancy, labour and postpartum
<b>Comparison</b>	n/a
<b>Outcome</b>	Key concepts of clinical care required for obese women during pregnancy and labour and birth are identified

### 2.3 Clinical questions

The following clinical questions were generated to inform the guideline scope and purpose:

- What are the health risks of maternal obesity in pregnancy?
- What antenatal assessments and care are recommended for obese women?
- What intrapartum and postpartum care is indicated for obese women?
- What pre-and inter pregnancy care is indicated for obese women?

### 2.4 Exclusions

The following exclusions were identified in the guideline scope:

- Routine or usual antenatal, intrapartum and postpartum care
- Specific food safety and dietary advice

### 2.5 Search strategy

A search of the literature was conducted during September 2014 to January 2015 using multiple techniques including search and review of:

- Known guideline sites (e.g. Royal Australian and New Zealand College of Obstetricians and Gynaecologists, National Guideline Clearing House, Royal College of Obstetrician and Gynaecologists, Society of Obstetricians and Gynaecologists of Canada, American Academy of Pediatrics)
- Synthesised evidence (e.g. UpToDate, Cochrane reviews)
- Summaries of relevant literature (e.g. identified using Cinahl, PubMed)
- Individual case reports, studies and trials identified in the literature
- Relevant reference lists

## 2.6 Consultation

Major consultative and development processes occurred between May and August 2015. These are outlined in Table 3.

Table 3. Major guideline development processes

Process	Activity
<b>Clinical lead</b>	<ul style="list-style-type: none"> <li>The nominated Co- clinical leads were approved by QCG Steering Committee</li> </ul>
<b>Consumer participation</b>	<ul style="list-style-type: none"> <li>Consumer participation was invited from a range of consumer focused organisations registered with QCG</li> </ul>
<b>Working party</b>	<ul style="list-style-type: none"> <li>An EOI for working party membership was distributed via email to Queensland clinicians and stakeholders (~1000) in June 2015</li> <li>The working party was recruited from responses received</li> <li>Working party members who participated in the working party consultation processes are acknowledged in the guideline</li> <li>Working party consultation occurred in a virtual group via email</li> </ul>
<b>Statewide consultation</b>	<ul style="list-style-type: none"> <li>Consultation was invited from Queensland clinicians and stakeholders (~1000) during July and August 2015</li> <li>Feedback was received primarily via email</li> <li>All feedback was compiled and provided to the clinical lead and working party members for review and comment</li> </ul>

## 2.7 Endorsement

The guideline was endorsed by the:

- Queensland Clinical Guidelines Steering Committee in November 2015
- Statewide Maternity and Neonatal Clinical Network [Queensland] in November 2015

## 2.8 Publication

The guideline and guideline supplement were published on the QCG website in December 2015

The guideline can be cited as:

Queensland Clinical Guidelines Obesity in pregnancy. Guideline No. MN 15.14-V5.R20. Queensland Health. 2015. Available from: <http://www.health.qld.gov.au/qcg/>

The guideline supplement can be cited as:

Queensland Clinical Guidelines. Supplement: Obesity in pregnancy. Guideline No. MN 15.14-V5.R20. Queensland Health. 2015. Available from: <http://www.health.qld.gov.au/qcg/>

### 3 Levels of evidence

The following levels of evidence are outline by the National Health and Medical Research Council. Note that the 'consensus' definition\* in Table 4 is different from that proposed by the NHMRC and instead relates to forms of evidence not identified in the NHMRC's level of evidence and/or the clinical experience of the guideline's clinical lead and working party.

Table 4. Levels of evidence

<b>Levels of evidence</b>	
<b>I</b>	Evidence obtained from a systematic review of all relevant randomised controlled trials.
<b>II</b>	Evidence obtained from at least one properly designed randomised controlled trial.
<b>III-1</b>	Evidence obtained from well-designed pseudo randomised controlled trials (alternate allocation or some other method).
<b>III-2</b>	Evidence obtained from comparative studies including systematic review of such studies with concurrent controls and allocation not randomised (cohort studies), case control studies or interrupted time series with a control group.
<b>III-3</b>	Evidence obtained from comparative studies with historical control, two or more single arm studies, or interrupted time series without parallel control group.
<b>IV</b>	Evidence obtained from case series, either post-test or pre-test and post-test.
<b>Consensus*</b>	Opinions based on respected authorities, descriptive studies or reports of expert committees or clinical experience of the working party.

### 3.1 Summary recommendations

Summary recommendations and levels of evidence are outlined in Table 5.

Table 5. Summary recommendations

Recommendation		Grading of evidence
1.	A multidisciplinary team approach is recommended for the care of obese women	<b>Consensus</b>
2.	Calculate and document pre-pregnancy BMI for all women at entry to antenatal care	<b>Consensus</b>
3.	Use the World Health Organisation criteria for classifying pre-pregnancy BMI	<b>Consensus</b>
4.	Discuss desirable weight gain and rate of gain with all women early in pregnancy	<b>Consensus</b>
5.	Advise maternal weight gain within the ranges specified for each BMI classification	<b>Consensus</b>
6.	Recommend an antenatal anaesthetic consultation to women with BMI greater than or equal to 40 kg/m <sup>2</sup>	<b>Consensus</b>
7.	Offer counselling on diet and physical activity to all pregnant women	<b>Consensus</b>
8.	Provide increased clinical surveillance across the peripartum period for obese women due to the increased risk of complications	<b>Consensus</b>
9.	Discuss healthy eating, physical activity and breastfeeding as strategies for returning to pre-pregnancy weight with all postpartum women	<b>Consensus</b>
10.	Offer obese women additional support for breastfeeding	<b>Consensus</b>
11.	Advise obese women of the benefits of weight loss preconception and between pregnancies	<b>Consensus</b>
12.	Consider the clinical service capabilities of the facility in determining care provision for pregnant obese women	<b>Consensus</b>

## 4 Implementation

This guideline is applicable to all Queensland public and private maternity facilities. It can be downloaded in Portable Document Format (PDF) from [www.health.qld.gov.au/qcg](http://www.health.qld.gov.au/qcg)

### 4.1 Guideline resources

The following guideline components are provided on the website as separate resources:

- Flowchart: Obesity in pregnancy
- Education resource: Obesity in pregnancy
- Knowledge assessment: Obesity in pregnancy
- Auditing resources: Obesity in pregnancy
- Parent information: Obesity in pregnancy

### 4.2 Suggested resources

During the development process stakeholders identified additional resources with potential to complement and enhance guideline implementation and application. The following resources have not been sourced or developed by QCG but are suggested as complimentary to the guideline:

- Individualised pregnancy weight tracking applications or tools (electronic or paper) available from [www.health.qld.gov.au/nutrition/resources/antenatal\\_wtverwt.pdf](http://www.health.qld.gov.au/nutrition/resources/antenatal_wtverwt.pdf)
- Information for women about healthy eating choices and gestational weight gain

### 4.3 Implementation measures

Suggested activities to assist implementation of the guideline are outlined below.

#### 4.3.1 QCG measures

- Notify Chief Executive Officer and relevant stakeholders
- Monitor emerging new evidence to ensure guideline reflects contemporaneous practice
- Capture user feedback
- Record and manage change requests
- Review guideline in 2020

#### 4.3.2 Hospital and Health Service measures

Initiate, promote and support local systems and processes to integrate the guideline into clinical practice, including:

- Hospital and Health Service (HHS) Executive endorse the guidelines and their use in the HHS and communicate this to staff
- Promote the introduction of the guideline to relevant health care professionals
- Support education and training opportunities relevant to the guideline and service capabilities
- Align clinical care with guideline recommendations
- Undertake relevant implementation activities as outlined in the *Guideline implementation checklist* available at [www.health.qld.gov.au/qcg](http://www.health.qld.gov.au/qcg)



#### 4.4 Quality measures

Auditing of guideline recommendations and content assists with identifying quality of care issues and provides evidence of compliance with the National Safety and Quality Health Service (NSQHS) Standards<sup>1</sup>. Suggested audit and quality measures are identified in Table 6. NSQHS Standard 1.

Table 6. NSQHS Standard 1

NSQHS Standard 1: Governance for Safety and Quality in Health Service Organisations	
Clinical Practice: Care provided by the clinical workforce is guided by current best practice	
Criterion 1.7:	Actions required:
Developing and/or applying clinical guidelines or pathways that are supported by the best available evidence	1.7.1 Agreed and documented clinical guidelines and/or pathways are available to the clinical workforce
	1.7.2 The use of agreed clinical guidelines by the clinical workforce is monitored

The following clinical quality measures are suggested:

Table 7. Clinical quality measures

No	Audit criteria	Guideline Section
1.	<p><b>Preconception:</b> Proportion of women:</p> <ul style="list-style-type: none"> <li>With pre-pregnancy BMI greater than or equal to 30 who commenced 5 mg folic acid supplementation daily prior to conception</li> </ul>	Section 3.1
2.	<p><b>Antenatal:</b> Proportion of obese pregnant women:</p> <ul style="list-style-type: none"> <li>Who have a pre-pregnancy BMI documented in the medical record</li> <li>With BMI greater than or equal to 40 kg/m<sup>2</sup> who had an antenatal anaesthetic review</li> <li>Who had an oral glucose tolerance test or HbA1c at entry to pregnancy care</li> <li>Who had an oral glucose tolerance test repeated between 24 and 28 weeks gestational age</li> <li>With documented evidence of discussion about recommended gestational weight gain</li> <li>With documented evidence of assessment of risk of VTE</li> <li>Who were referred to a dietitian</li> </ul>	Section 4.1
3.	<p><b>Intrapartum:</b> Proportion of obese women</p> <ul style="list-style-type: none"> <li>Who had active management of the third stage of labour</li> <li>With BMI greater than or equal to 40 kg/m<sup>2</sup> who had continuous fetal surveillance during labour</li> </ul>	Section 5
4.	<p><b>Postpartum:</b> Proportion of obese women with documented evidence that discussion occurred/information provided about:</p> <ul style="list-style-type: none"> <li>OGTT screening at 6 weeks</li> <li>The benefits of inter-pregnancy weight loss</li> <li>Proportion of obese women with documented evidence of VTE risk assessment</li> </ul>	Section 6

## 4.5 Safety and quality

Implementation of this guideline provides evidence of compliance with the NSQHS and Australian Council on Healthcare Standards (ACHS) EQUiP National accreditation programs<sup>1,2</sup>

Table 8. NSQHS criteria

NSQHS/EQUIP National Criteria	Actions required	☑ Evidence of compliance
<b>Standard 1: Governance for Safety and Quality in Health Service Organisations</b>		
<b>Clinical practice</b> 1.7 Developing and/or applying clinical guidelines or pathways that are supported by the best available evidence	1.7.1 Agreed and documented clinical guidelines and/or pathways are available to the clinical workforce	<input checked="" type="checkbox"/> Queensland Clinical Guidelines is funded by Queensland Health to develop clinical guidelines relevant to the service line to guide safe patient care across Queensland <input checked="" type="checkbox"/> The guideline provides evidence-based and best practice recommendations for care <input checked="" type="checkbox"/> The guideline is endorsed for use in Queensland Health facilities. <input checked="" type="checkbox"/> A desktop icon is available on every Queensland Health computer desktop to provide quick and easy access to the guideline
<b>Performance and skills management</b> 1.12 Ensuring that systems are in place for ongoing safety and quality education and training	1.12.1 The clinical and relevant non-clinical workforce have access to ongoing safety and quality education and training for identified professional and personal development	<input checked="" type="checkbox"/> The guideline has accompanying educational resources to support ongoing safety and quality education for identified professional and personal development. The resources are freely available on the internet <a href="http://www.health.qld.gov.au/qcg">http://www.health.qld.gov.au/qcg</a>
<b>Standard 2: Partnering with Consumers</b>		
<b>Consumer partnership in designing care</b> 2.5 Partnering with consumers and/or carers to design the way care is delivered to better meet patient needs and preferences	2.5.1 Consumers and/or carers participate in the design and redesign of health services	<input checked="" type="checkbox"/> Consumer consultation was sought and obtained during the development of the guideline. Refer to the acknowledgement section of the guideline for details
<b>Standard 9: Recognising clinical deterioration and escalating care</b>		
<b>Establishing recognition and response systems</b> 9.1 Developing, implementing and regularly reviewing the effectiveness of governance arrangements and the policies, procedures and/or protocols that are consistent with the requirements of the National Consensus Statement.	9.1.2 Policies, procedures and/or protocols for the organisation are implemented in areas such as: <ul style="list-style-type: none"> <li>• Measurement and documentation of observations</li> <li>• Escalation of care</li> <li>• Establishment of a rapid response system</li> <li>• Communication about clinical deterioration</li> </ul>	<input checked="" type="checkbox"/> The guideline is consistent with National Consensus statement recommendations <input checked="" type="checkbox"/> The guideline recommends the use of the Maternity Early Warning Tool. The tool is consistent with principles of recognising clinical deterioration and escalating care

NSQHS/EQuIP National Criteria	Actions required	<input checked="" type="checkbox"/> Evidence of compliance
EQuIPNational		
<b>Standard 12 Provision of care</b>		
<p><b>Criterion 1: Assessment and care planning</b>                      12.1 Ensuring assessment is comprehensive and based upon current professional standards and evidence based practice</p>	<p>12.1.1 Guidelines are available and accessible by staff to assess physical, spiritual, cultural, physiological and social health promotion needs</p>	<p><input checked="" type="checkbox"/> Assessment and care appropriate to the cohort of patients is identified in the guideline  <input checked="" type="checkbox"/> The guideline is based on the best available evidence</p>

## 5 References

1. Australian Commission on Safety and Quality in Healthcare. National Safety and Quality Health Service Standards. 2012 [cited 2014, October 14]. Available from: <http://www.safetyandquality.gov.au/>.
2. The Australian Council on Healthcare Standards. EQUIP National Guidelines. 2012 [cited 2014 October 20]. Available from: <http://www.achs.org.au/programs-services/>.