Updated clinical practice guidelines on pregnancy care

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Abstract

Introduction: The clinical practice guidelines on pregnancy care have been developed to provide reliable and standardised guidance for health professionals providing antenatal care in Australia. They were originally released as the Clinical Practice Guidelines: Antenatal Care in two separate editions (modules 1 and 2) in 2012 and 2014. These modules have now been combined and updated to form a single set of consolidated guidelines that were publicly released in February 2018 as the Clinical Practice Guidelines: Pregnancy Care. Eleven topics have been updated and new guidance on substance use in pregnancy has been added.

Main recommendations: The updated guidelines include the following key changes to practice:

- recommend routine testing for hepatitis C at the first antenatal visit;
- recommend against routine testing for vitamin D status in the absence of a specific indication;
- recommend discussing weight change, diet and physical activity with all pregnant women; and
- recommend offering pregnant women the opportunity to be weighed at every antenatal visit and encouraging women to self-monitor weight gain.

Changes in management as a result of the guidelines: The guidelines will enable pregnant women diagnosed with hepatitis C to be identified and thus avoid invasive procedures that increase the risk of mother-to-baby transmission. Women can be treated postpartum, reducing the risk of liver disease and removing the risk of perinatal infection for subsequent pregnancies. Routine testing of all pregnant women for vitamin D status and subsequent vitamin D supplementation is not supported by evidence and should cease as the benefits and harms of vitamin D supplementation remain unclear. The recommendation for health professionals to provide advice to pregnant women about weight, diet and physical activity, and the opportunity to be weighed will help women to make changes leading to better health outcomes for themselves and their babies.

Antenatal care consists of the care provided by skilled health care professionals to pregnant women and adolescent girls to ensure the best health for both mother and baby during pregnancy.[1] It provides an opportunity to communicate with and support pregnant women and their families at a critical time in a woman's life. Antenatal care is a well accepted part of pregnancy for most women who give birth in Australia.[2] It can be provided in both community and acute care settings and usually involves a visit between a pregnant woman and a midwife or doctor, but may involve other health professionals. Antenatal care is associated with positive maternal and child health outcomes as the likelihood of receiving effective health interventions is increased.[2] Providing positive experiences during antenatal care contributes to an effective transition to positive labour and childbirth and a positive experience of becoming a parent.[1] Effective models of antenatal care focus on the individual woman's needs and preferences, collaboration and continuity of care and carer.

The Clinical Practice Guidelines: Pregnancy Care provide evidence-based recommendations to support high quality, safe antenatal care in all settings.[3] They combine two earlier editions: modules 1 and 2 of the Clinical Practice Guidelines: Antenatal Care, published in 2012 and 2014, respectively.[4,5] Some of the chapters in these earlier editions were reviewed and updated in 2016–17 and the two modules were brought together to become this new full version published in 2018. The development of the original guidelines, and the review and updating process, were undertaken in accordance with National Health and Medical Research Council (NHMRC) requirements for guideline development. The most recent review was conducted using GRADE methodology.[6,7]

The pregnancy care guidelines are designed to support Australian maternity services to provide high quality, evidence-based antenatal care to healthy pregnant women.[3] They are intended for all health professionals who contribute to antenatal care including midwives, obstetricians, general practitioners, practice nurses, maternal and child health nurses, Aboriginal and Torres Strait Islander health workers and allied health professionals. They are implemented at national, state, territory and local levels to provide consistency of antenatal care in Australia. While they are not intended to be a consumer resource, they are publicly available and can also be accessed by women and the media seeking information on antenatal care.

This guideline summary outlines the process of reviewing and updating the guidelines undertaken in 2016–17 and provides an overview of topics where new recommendations will lead to a change in practice. The full guidelines are available at www.health.gov.au/pregnancycareguidelines.

Method

The development of national evidence-based antenatal care guidelines was approved in July 2005 by the Australian Health Ministers' Conference and the Community and Disability Services Ministers' Conference as a project to improve child health and wellbeing. Women's Hospitals Australasia was engaged to report on existing antenatal care guidelines and consider how they might be adapted to Australian circumstances. This work was undertaken in an environment where Australian governments were recognising the importance of the antenatal and early childhood periods and the role that antenatal care could play in improving Indigenous life expectancy. It led to Australian Health Ministers agreeing that it would be valuable to develop a set of antenatal care guidelines that were based on the systematic identification and synthesis of scientific evidence and provided clear recommendations for Australian health professionals.

An expert advisory group was established with broad representation from professional groups and consumers. Working groups

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1 Topics included in stage 1 review and currently under review

Stage 1 review

- Weight and body mass index (weight monitoring reviewed)
- Fetal growth and wellbeing
- Risk of preterm birth
- Risk of pre-eclampsia (risk factors and prediction reviewed)
- Family violence
- Hyperglycaemia (early testing reviewed)
- Hepatitis C
- Thyroid dysfunction
- Vitamin D status
- Chromosomal anomalies (cell-free DNA testing reviewed).
- Substance use (new topic)

Currently under review (completion anticipated in late 2019)

- Chlamydia
- Syphilis
- Cervical length measurement
- Cytomegalovirus
- Prolonged pregnancy
- Lifestyle (physical activity, nutrition, weight management, nutritional supplements)
- Cervical abnormalities
- Anaemia
- Pre-eclampsia
- Group B streptococcus
- Vaccinations
- Genetic carrier screening
- Ultrasound for women who have cell-free DNA testing
- Diabetes ◆

2 GRADE categories of recommendation[6,7]

Type	Definition
Evidence-based recommendation	Body of evidence can be trusted to guide practice
Qualified evidence-based recommendation	Body of evidence can be trusted to guide practice in most situations
Consensus-based recommendation	Recommendation formulated in the absence of quality evidence (where a systematic review of the evidence was conducted as part of the search strategy)
Practice point	Area is beyond the scope of the systematic literature review; advice was developed by the Expert Working Group

comprised of members with expertise in obstetrics, midwifery, psychiatry, gynaecology, fetal medicine and Aboriginal Torres Strait Islander health were established to guide the prioritisation of the initial questions to be addressed and then support the development of the guidelines. Consumers were represented on the working groups and specialised groups representing Aboriginal and Torres Strait Islander and migrant and refugee women were formed to ensure the guidelines developed were applicable to these groups. This work culminated in the release of module 1 of the clinical practice guidelines on antenatal care in 2012, followed by module 2 in 2014. The guidelines were developed in line with NHMRC procedures and standards and both modules were approved by the NHMRC for a 5-year period.

In 2015, the Maternity Services Inter-Jurisdictional Committee identified the need to review and update the guidelines and secured funding through the 2015–16 Australian Health Ministers' Advisory Council cost-shared budget to commence the review. The Australian Government Department of Health set up an expert working group (EWG), comprising specialists with academic and clinical expertise in obstetrics, midwifery and general practice to guide the review. Special groups such as Aboriginal and Torres Strait Islander women, rural and remote women, and migrant and refugee women were represented. As it was not feasible to review every topic, a staged approach to the review was adopted. For stage 1, the EWG identified topics where there may be new evidence that may lead to revised recommendations, and considered new topics for inclusion in the guidelines. This resulted in ten topics for review and one new topic (Box 1). Research questions were formulated for each of the topics. The topics and research questions were distributed to the Australian College of Midwives, Royal Australian and New Zealand College of Obstetricians and Gynaecologists, and the Royal Australian College of General Practitioners inviting comments. This resulted in the inclusion of some additional research questions.

An expert in guideline development was engaged to provide advice to the review and ensure the process met NHMRC requirements. A technical writer was recruited to assist with the review of the literature and draft revised text and recommendations for the EWG to consider. In consultation with the methodologist, the technical writer prepared evidence evaluation statements for each of the topics and these were used to inform the revised text and recommendations for the guidelines. They were shared with the EWG and relevant areas within the Department of Health for comment. Other experts were invited to review specific chapters based on their expertise. The guidelines were released for public consultation in May 2017. Submissions received were considered by the EWG and informed the finalisation of the guidelines.

The recommendations in the guidelines are based on systematic reviews of evidence and have been graded using GRADE methodology (Box 2).[6,7] Where evidence was limited or lacking, consensus-based recommendations were developed. Some recommendations and consensus-based recommendations from other national guidelines were also included, where these were based on systematic review of the evidence. For areas beyond the scope of the systematic reviews, practice points were developed. Recommendations and practice points relating to the reviewed topics were approved by the NHRMC in October 2017.

Stage 2 of the review is currently underway and further updates to the guidelines are expected to be released in 2019 (Box 1).

Recommendations

The guidelines consist of ten parts containing 182 recommendations focusing on the care of healthy pregnant women. Parts A and B focus on optimising pregnancy care and core practices in pregnancy care. Parts C and D consider lifestyle considerations and clinical assessments, and Part E covers social and

emotional screening. Parts F, G and H cover routine and targeted maternal health tests, and fetal chromosomal anomalies. Part I focuses on common conditions during pregnancy and Part J deals with clinical assessments in late pregnancy.

This summary focuses on three key areas that were reviewed for the guidelines and where new recommendations will lead to a change in practice: hepatitis C, vitamin D testing and weight gain. The evidence evaluation did not result in significant changes to recommendations for the other topics reviewed. The full guidelines contain the narrative and recommendations for all the other topics.

Hepatitis C

- At the first antenatal visit, recommend testing for hepatitis C (consensus-based recommendation).

Although about 20% of people with chronic hepatitis C remain undiagnosed, the previous guidelines did not recommend routinely offering hepatitis C testing to pregnant women. This was because at the time there was no effective treatment available to people living with hepatitis C and therefore the criteria for testing were not met.

Since 2012, significant advances have been made in the treatment of people with hepatitis C which mean clearance of the virus is now possible and a range of treatments are subsidised through the Pharmaceutical Benefits Scheme.[8] While hepatitis C treatment during pregnancy is not recommended, testing during pregnancy means women identified with the virus can commence treatment in the postpartum period. This means that women can reduce their risk of liver disease and remove the risk of perinatal infection for subsequent pregnancies.

Vitamin D testing

- Do not routinely recommend testing for vitamin D status to pregnant women in the absence of a specific indication (evidence-based recommendation).
- If testing is performed, only recommend vitamin D supplementation for women with levels lower than 50 nmol/L (practice point).

Over the past decade there has been significant interest in vitamin D deficiency in the community and pregnancy is no exception. The 2011–12 Australian Health Survey showed 23% of Australian adults had low vitamin D levels, particularly for people living in the south-eastern states of Australia and in major cities and more often in winter.[9]

However, there is limited evidence supporting testing of all women for vitamin D status in pregnancy and lack of clarity regarding the benefits and harms of supplementation in pregnancy. Despite this lack of clear evidence of benefit, there is anecdotal evidence that routine testing of pregnant women for vitamin D status and recommendation of vitamin D supplementation when levels are found to be low is common. It was the experience of members in the EWG that this practice has cost implications, as testing for vitamin D status is expensive and supplementation involves a further cost for women. The revised recommendation in the guidelines provides an opportunity to be more directive and specifically advises clinicians not to routinely recommend testing for vitamin D status to pregnant women in the absence of a specific indication.

Maternal weight gain in pregnancy

- At every antenatal visit, offer women the opportunity to be weighed and encourage self-monitoring of weight gain (consensus-based recommendation).
- At every antenatal visit, discuss weight change, diet and level of physical activity with all women (consensus-based recommendation).

Obesity is an important health concern in Australia as in many other countries. Among women who gave birth in Australia in 2016, about 20% were obese and 26% were overweight.[2] Women who are overweight or obese are at increased risk of preterm birth (birth before 37 weeks)[10] and a number of other adverse outcomes. Aerobic exercise, such as walking 30–60 minutes, 3–7 times a week, may help to reduce the risk of early birth in pregnant women with singleton pregnancies who are overweight or obese without any contraindications to physical acticity.[11] This provides an opportunity for clinicians to provide advice to a specific group about a modifiable risk factor that may improve health outcomes for themselves and their baby at a time when women are particularly interested and motivated to make positive changes. Dietary means of controlling gestational weight gain are currently under review.

Conclusion

The pregnancy care guidelines were developed to help ensure that women in Australia are provided with consistent, high quality, evidence-based maternity care. The guidelines are intended for all health professionals who contribute to pregnancy care including midwives, obstetricians, general practitioners, Aboriginal and Torres Strait Islander health workers and allied health professionals. The recommendations in these guidelines have been approved by the NHMRC as meeting the Council's standards for the preparation of evidence-based recommendations.

The next challenge is to facilitate the uptake of the guidelines and their incorporation into routine care so that the women of Australia receive the highest possible quality of maternity care. We trust that the guidelines will contribute to greater consistency in pregnancy care and improve the experience and outcomes of pregnancy care for women and their families.

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