

NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

Centre for Clinical Practice

Review of Clinical Guideline (CG62) – Antenatal Care: routine care of the healthy pregnant woman

Background information

Guideline issue date: 2003

Guideline updated: 2008

3 year review: 2011

National Collaborating Centre: Women's and Children's Health

Review recommendation

- The guideline should not be updated at this time.
- The guideline will be reviewed again according to current processes.

Factors influencing the decision

Literature search

1. From initial intelligence gathering and a high-level randomised control trial (RCT) search clinical areas were identified to inform the development of clinical questions for focused searches. Through this stage of the process 147 studies were identified relevant to the guideline scope. The identified studies were related to the following clinical areas within the guideline:
 - Woman-centred care (provision of information and antenatal classes)

- Lifestyle considerations (diet and exercise, prescribed medications, alternative therapies, nutritional supplements and smoking)
 - Management of common symptoms of pregnancy (nausea and vomiting in early pregnancy and backache/pain)
 - Clinical examination of pregnant women (pelvic examination and psychiatric screening)
 - Screening for clinical problems (pre-eclampsia and gestational diabetes)
 - Screening for haematological problems (sickle cell and thalassaemia, blood grouping and red cell autoantibodies)
 - Screening for fetal anomalies (structural anomalies and Down's syndrome)
 - Screening for infections (Toxoplasma, Chlamydia, HIV, Hepatitis B, streptococcus group B, bacterial vaginosis, syphilis and asymptomatic bacteriuria)
 - Fetal growth and wellbeing (amniotic fluid volume, cardiotocography and ultrasound)
2. In particular, 24 Cochrane systematic reviews were identified through the initial intelligence gathering and RCT process. Twelve reviews presented conclusions that supported the current guideline recommendations particularly in relation to use of ultrasound, antenatal cardiotocography, support during pregnancy, management of back pain and vitamin A and iron supplementation. In addition, 12 reviews were unable to present definitive conclusions due to a paucity of RCTs on the topic. These reviews were related to screening for Down's syndrome, screening for gestational diabetes, antenatal education, fetal surveillance (in particular ultrasound, fetal movement counting and cardiotocography for fetal assessment) and management of nausea during pregnancy.

3. Two clinical questions were developed based on the clinical areas above, qualitative feedback from other NICE departments and the views expressed by the Guideline Development Group, for more focused literature searches. The clinical questions were related to vitamin D supplementation and screening for Down's syndrome. The identified evidence indicated that vitamin D supplementation during pregnancy and breastfeeding confers some benefit which is in line with the current guideline recommendation. The second clinical question was aimed at identifying literature reporting the diagnostic value and effectiveness of screening methods in identifying babies with Down's syndrome. The identified studies compared different screening methods and reported inconsistent results and as such, no conclusive new evidence was identified which would invalidate the current guideline recommendations on screening for Down's syndrome.
4. In addition, the results of a focused search on screening for gestational diabetes mellitus (GDM) conducted for the CG63: Diabetes in Pregnancy review for update was included as the Antenatal Care guideline addresses screening for GDM.
5. In total, 41 studies were identified through the focused searches. A review of the Diabetes in Pregnancy guideline (CG63) indicated that there is potential new evidence (relating to the results of the Hyperglycemia and Adverse Pregnancy Outcomes (HAPO) study and the criteria for diagnosis of GDM). As such, any future update of the recommendations relating to screening of GDM in the Diabetes in Pregnancy guideline would subsequently update the relevant section in the Antenatal Care guideline.
6. No evidence was identified which directly answered the research recommendations presented in the original guideline.
7. Several ongoing clinical trials (publication dates unknown) were identified focusing on prenatal nutritional supplementation (including

vitamin D3 supplementation) and weight management for improved pregnancy outcomes.

Guideline Development Group and National Collaborating Centre perspective

8. A questionnaire was distributed to GDG members and the National Collaborating Centre to consult them on the need for an update of the guideline. Six responses were received with respondents highlighting that since publication of the guideline more literature has become available on screening for Down's syndrome and vitamin D supplementation as part of antenatal care. In addition, update of the National Screening Committee Fetal Anomaly Screening Programme (particularly relating to Down's syndrome screening) was highlighted by GDG members. This feedback contributed towards the development of the clinical questions for the focused searches.
9. Ongoing research relevant to the guideline was highlighted by GDG members addressing obesity in pregnancy and appropriate interventions and screening for Down's syndrome (nasal bones, ductus venosus and tricuspid regurgitation in improving screening performance).
10. Feedback from the NCC indicated that any review of the guideline should include: risk assessment of women (enabling midwives and women to identify when women require additional care).
11. The majority of questionnaire respondents agreed that there is insufficient variation in current practice supported by adequate evidence at this time to warrant an update of the current guideline.

Implementation and post publication feedback

12. Key themes emerging from post-publication feedback were:

- Discrepancy over recommendations for caffeine intake in the NICE guideline and The Pregnancy Book (Department of Health publication)
- Queries regarding the recommendations relating to consumption of alcohol during pregnancy
- Queries relating to HypnoBirthing®, an antenatal education tool to prepare for labour, birth and parenting

13. An analysis by the NICE implementation team highlighted several implementation studies relating to antenatal care from the published literature:

- A Confidential Enquiry into Maternal and Child Health (CEMACH) report on perinatal mortality. The report evaluated variation in perinatal mortality rates for 2007 across England and provides comparator data for individual trusts, neonatal networks and different categories of neonatal units.
- Healthcare Commission review of maternity services in England.
- A national Centre for Maternal and Child Enquiries (CMACE) report on maternal obesity in the UK.

14. Qualitative input from the field team indicated that the guideline has been helpful although the size of the guideline has made it a challenge to implement. Additional practical issues were highlighted including screening for Down's syndrome and the challenge of working with partner agencies, particularly when a pathway crosses numerous agencies

15. This feedback contributed towards the development of the clinical questions for the focused searches.

Relationship to other NICE guidance

16. NICE guidance related to CG62 can be viewed in [Appendix 1](#). In particular, the Antenatal Care guideline is linked to CG63: Diabetes in

Pregnancy, 2008 as clinical evidence in relation to screening methods for gestational diabetes mellitus (GDM) is presented in the Antenatal Care guideline whilst the clinical evidence in relation to diagnosis and treatment of GDM is presented in the Diabetes in Pregnancy Guideline.

Summary of Stakeholder Feedback

Review proposal put to consultees:

The guideline should not be updated at this time.

The guideline will be reviewed again according to current processes.

17. In total 17 stakeholders commented on the review proposal recommendation during the 2 week consultation period.
18. There was a split in agreement amongst stakeholders with half agreeing and half disagreeing with the review proposal recommendation. One stakeholder did not provide a comment.
19. Those stakeholders that disagreed with the review proposal indicated that the recommendations in the guideline are not consistent with the revised UK National Screening Committee (NSC) standards for screening for Down's syndrome and fetal anomalies.
20. Literature was submitted through stakeholder consultation relating to:
 - Fetal heart rate abnormalities
 - Alcohol during pregnancy
 - The role of GPs in maternity care
 - Antenatal haemoglobinopathy screening
 - Screening for congenital heart disease
 - Screening for fetal anomalies
 - A guide for physically disabled parents

21. During consultation, other areas of the guideline to consider for review in an update of the guideline were highlighted including:

- Gestational diabetes mellitus
- Diet and physical activity in pregnancy
- Use of Doppler in pregnancy
- Screening for chromosomal anomalies
- Screening for haematological problems (including sickle cell and thalassaemia and haemoglobinopathy screening)
- Screening for infectious diseases during pregnancy
- Screening for Down's syndrome
- Alcohol in pregnancy

22. During consultation, new areas to consider in an update of the guideline were highlighted including:

- Protection of pregnant mothers against carbon monoxide poisoning
- Provision of care (shared care between midwives and GPs)
- 3 Vessel and Trachea View (3VT) as part of advanced screening for duct-dependent congenital heart disease
- Avoidance of allergies (including advice on the use of certain food, skincare and household products during pregnancy)

Anti-discrimination and equalities considerations

23. No evidence was identified to indicate that the guideline scope does not comply with anti-discrimination and equalities legislation. The original guideline offers information on best practice for baseline clinical care of all pregnancies and comprehensive information on the antenatal care of the healthy woman with an uncomplicated singleton pregnancy.

24. The following equalities issues were highlighted during stakeholder consultation. These issues may be taken into consideration during the scoping process for any update of this guideline:

- Differences in service provision in cities and rural areas

- Woman/partner's needs regarding positioning or adaptive considerations at hospital and/or at home when physical disability is present

Conclusion

25. A review of the Diabetes in Pregnancy guideline (CG63) indicated that there is potential new evidence (relating to the results of the HAPO study and the criteria for diagnosis of GDM). As such, any future update of the recommendations relating to screening of GDM in the Diabetes in Pregnancy guideline would subsequently update the relevant section in the Antenatal Care guideline.
26. Through the review process some inconsistencies were identified between the UK National Screening Committee standards for screening for Down's syndrome and fetal anomalies and the recommendations presented in the guideline. These inconsistencies are generally related to the dates when screening should begin. As part of the review process evidence was identified relating to the diagnostic value and effectiveness of screening methods in identifying babies with Down's syndrome. The identified studies compared different screening methods and reported inconsistent results and as such, no conclusive new evidence was identified which would invalidate the current guideline recommendations on screening for Down's syndrome at this stage. The inconsistencies between the UK National Screening Committee standards for screening for Down's syndrome and fetal anomalies and the guideline recommendations will be taken into account in the next review of the guideline.
27. The Antenatal Care guideline should not be updated at this time.

Relationship to quality standards

28. This guideline relates to a quality standard on antenatal care.

Fergus Macbeth – Centre Director
Sarah Willett – Associate Director
Emma McFarlane – Technical Analyst

Centre for Clinical Practice
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Appendix 1

The following NICE guidance is related to CG62:

Guidance	Review date
CG110: A model for service provision for pregnant women with complex social factors, 2010.	Expected to be reviewed for update September 2013.
CG107: The management of hypertensive disorders during pregnancy, 2010.	Expected to be reviewed for update August 2013.
PH27: Dietary interventions and physical activity interventions for weight management before, during and after pregnancy, 2010.	Expected review date: TBC.
PH26: How to stop smoking in pregnancy and following childbirth, 2010.	Expected review date: TBC.
PH11: Guidance for midwives, health visitors, pharmacists and other primary care services to improve the nutrition of pregnant and breastfeeding mothers and children in low income households, 2008.	Expected review date: TBC.
PH10: Smoking cessation services in primary care, pharmacies, local authorities and workplaces, particularly for manual working groups, pregnant women and hard to reach communities, 2008.	Expected review date: TBC.
TA156: Pregnancy - routine anti-D prophylaxis for rhesus negative women (review of TA41), 2008.	Expected to be reviewed for update May 2011.
CG70: Induction of labour, 2008.	Expected to be

	reviewed for update July 2011.
CG63: Diabetes in pregnancy, 2008.	Expected to be reviewed for update March 2011.
CG55: Intrapartum care, 2007.	Review decision published February 2011.
CG45: Antenatal and postnatal mental health: clinical management and service guidance, 2007.	Expected to be reviewed for update February 2012.
CG37: Postnatal care: routine postnatal care of women and their babies, 2006.	Expected to be reviewed for update July 2012.
Related NICE guidance in progress	
Clinical Guideline: Multiple pregnancy: the management of twin and triplet pregnancies in the antenatal period.	Currently in progress. Provisional publication date: September 2011.
Clinical Guideline: Pain and bleeding in early pregnancy.	Currently in progress.