



EVIDENCE CENTRE CRITICAL APPRAISAL

The number of prenatal visits and patient satisfaction

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<p>Evidence Summary Systematic Review</p> <p>The number of prenatal visits and patient satisfaction</p>	<p>Villar J, Khan-Meelofur D. Patterns of routine antenatal care for low-risk pregnancy (Cochrane Review). In: The Cochrane Library, Issue 4, 1999. Oxford: Update Software.</p>
<p>STUDY DESIGN & NHMRC LEVELS OF EVIDENCE</p>	<p>Systematic Review (Level 1)</p>
<p>DESCRIPTION: Subjects, Interventions, Comparisons, Outcomes, Inclusion & Exclusion Criteria</p>	<p>Patients: Pregnant women attending antenatal care clinics and considered to be at low-risk of developing complications during pregnancy and labour. Intervention: Reduced number of antenatal care visits Comparison: Standard schedule of visits Outcomes: Measures of perception of care Exclusion criteria: Non-randomised studies focusing on intervention and comparisons as stated above</p>
<p>VALIDITY: Methodology, rigour, selection, opportunity for bias</p>	<p>Search strategy: Search strategy developed for the Pregnancy and Childbirth Collaborative Review Group (CRG) of the Cochrane Collaboration. The primary source of studies was the CRG's trial register, supplemented by searching through reference lists and personal communications. Assessed validity: Yes Consistent results: Yes Potential for bias: Publication bias minimal.</p>
<p>RESULTS: Generally favourable or unfavourable, specific outcomes of interest, estimate of experimental effect and precision if appropriate</p>	<p>There was heterogeneity in the results regarding women's perception of frequency of prenatal visits (chi-square=45; df=2; fixed effect model P <0.001), in the two methodologically high quality trials, demonstrating an increased proportion of women who were less satisfied with the reduced number of visits schedule. However, more women in the intervention group of one of these trials, than the controls, preferred the same visits schedule for the future. Furthermore, some of the indicators used (mean scores), although statistically significant, are difficult to interpret from a biological point of view.</p>
<p>AUTHORS COMMENTS: Risk/benefit, limitations</p>	<p>Evidence from these trials support the view that, in developed countries with well established obstetrics services, small reductions in the number of prenatal visits (= 2 visits or less) are compatible with good perinatal outcomes. However, it can be expected that women may be somehow disappointed. The only trial conducted in a developing country, in which a major reduction in the number of visits was achieved, also supports this conclusion. Therefore, attempts to provide effective interventions during pregnancy by distributing them in fewer visits than usually recommended can be attempted without risking effectiveness. Such care can be provided by staff other than the obstetrics/gynaecology specialist.</p> <p>Until further evidence becomes available, the four antenatal care visits schedule tested in the largest trial appears to be the minimum that should be offered to low risk pregnant women.</p> <p>The WHO Antenatal Care Trial which compared a reduced number of goal-oriented visits to traditional numbers of visits has recently completed recruitment. The trial is being conducted in four countries (Argentina, Cuba, Thailand and Saudi Arabia) and the report will be available later in 1999.</p>
<p>REVIEWER'S COMMENTS: Risk/benefit, methodology, conclusions</p>	

SUMMARY STATEMENT:

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Publication of materials – please use the following format when citing this article:

Centre for Clinical Effectiveness. The number of prenatal visits and patient satisfaction. Southern Health Care Network / Monash Institute of Public Health & Health Services Research, Clayton, 1999.

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REQUEST:

What is the number and frequency of ante-natal visits necessary to provide optimal care and satisfaction

MODIFIED QUESTION:

Do variations in the frequency of prenatal visits impact on patient satisfaction?

REQUESTED BY:

Ms Jenny Morgans, Midwife Coordinator, Women's Health, Springvale Community Health Service.

METHODOLOGY

Search Strategy

The Centre for Clinical Effectiveness defined the 'best available evidence' as that research we can identify that is least susceptible to bias. We determine this according to pre-defined NHMRC criteria (see Appendix).

First we search for systematic reviews, evidence-based clinical practice guidelines, or health technology assessments, and randomized controlled trials. If we identify sound, relevant material of this type, the search stops. Otherwise, our search strategy broadens to include studies that are more prone to bias, less generalizable, or have other methodologic difficulties. We include case-control and longitudinal cohort studies in our critical appraisal reports. While we cite observational and case series studies, and narrative reviews and consensus statements, in our reports we do not critically appraise them. Some studies can produce accurate results but they are generally too prone to bias to allow determination of their validity beyond their immediate setting.

Details of Evidence Request:

Search terms:

The following search terms were used to scour electronic databases and websites:

Table 1. Search terms used in the retrieval of articles from electronic databases and websites

Field of focus	Search term
Patient-related	Pregnant women
Intervention-related	Prenatal visits, antenatal visits
Comparison-related	As above
Outcome-related	Patient satisfaction

Resources Searched

We searched the following databases and Internet websites:

- Cochrane Library CD-ROM
- Best Evidence CD-ROM
- Medline (OVID)
- Cumulative Index of the Nursing and Allied Health Literature (CINAHL)
- Pubmed
- National Guidelines Clearinghouse
- Agency for Health Care Policy and Research (AHCPR)
- NHS Centre for Reviews and Dissemination (NHS CRD)

Refinements, Searching & Reporting Constraints:

We included items of evidence that were available to us on 15 November 1999. We did not impose limits on dates Critical appraisal was performed on the subset of studies published in English.

RESULTS:

From our sources we identified 7 articles which we categorised as follows:

Table 2. Study designs of articles retrieved by search

Study Design	Number included
Systematic reviews or meta-analyses	1
Evidence-based clinical practice guidelines	0
Randomised controlled trials	3
Controlled trials, cohort or case-control analytic studies	0
Descriptive case series	0
Consensus reports, non-evidence-based clinical practice guidelines	0
Narrative reviews	0
Opinions, letters to the editor	3

Articles were excluded from further appraisal as follows:

Table 3. Reasons for exclusion of articles retrieved by search

Reason for exclusion	Number
Opinions, letters to the editor	3
Studies included in later publications	3

This left only one systematic review (Villar 1999) available for critical appraisal. We are reasonably confident these articles represent the most important findings published to date based on our refinements, searching and reporting constraints.

EVIDENCE SUMMARIES

Format

Evidence summaries are in the form of spreadsheets reproduced at the end of this report. Each spreadsheet contains the article citation, the study design, patient description, scientific validity of the article, results, and pertinent remarks from the authors and Centre for Clinical Effectiveness reviewer.

REFERENCES

1. National Health and Medical Research Council. A Guide to the Development, Implementation and Evaluation of Clinical Practice Guidelines. Canberra: Commonwealth of Australia, 1999.

ARTICLES CRITICALLY APPRAISED FOR THIS REPORT

1. Villar J, Khan-Meelofur D. Patterns of routine antenatal care for low-risk pregnancy (Cochrane Review). In: The Cochrane Library, Issue 4, 1999. Oxford: Update Software.

ARTICLES NOT CRITICALLY APPRAISED

Studies included in later publications

1. Binstock MA, Wolde-Tsadik G. Alternative prenatal care. Impact of reduced visit frequency, focused visits and continuity of care. *Journal of Reproductive Medicine* 1995;40:507-12.
2. McDuffie RS, Jr., Beck A, Bischoff K, Cross J, Orleans M. Effect of frequency of prenatal care visits on perinatal outcome among low-risk women. A randomized controlled trial. *JAMA* 1996;275:847-51.
3. Sikorski J, Wilson J, Clement S, Das S, Smeeton N. A randomised controlled trial comparing two schedules of antenatal visits: the antenatal care project. *BMJ* 1996;312:546-53.

Opinions, letters to the editor

1. O'Connell T. Reduced schedule of antenatal visits. Differences in psychosocial outcomes between groups were not large. *BMJ* 1996;313:167; discussion 169.
2. Tincello D. Reduced schedule of antenatal visits. Effect of fewer visits on postnatal depression is important. *BMJ* 1996;313:167-8; discussion 169.
3. Vause S, Maresh M, Khaled K. Reduced schedule of antenatal visits. Study ignored influence of parity on women's needs. *BMJ* 1996;313:167; discussion 169.

APPENDIX

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Levels Of Evidence

As Defined By "A Guide To The Development, Implementation And Evaluation Of Clinical Practice Guidelines" (National Health & Medical Research Council, Canberra, 1998):

Level I		Evidence obtained from a systematic review or meta-analysis of all relevant randomised controlled trials.
Level II		Evidence obtained from at least one properly designed randomised controlled trials.
Level III	-1	Evidence obtained from well-designed pseudo-randomised controlled trials (alternate allocation or some other method).
	-2	Evidence obtained from comparative studies with concurrent controls and allocation not randomised (cohort studies), case control studies or interrupted time series with a control group.
	-3	Evidence obtained from comparative studies with historical control, two or more single-arm studies or interrupted time series without a parallel control group.
Level IV		Evidence obtained from case series (either post-test or pre-test and post-test), opinions of respected authorities (narrative reviews), descriptive studies, reports of expert (i.e. consensus) committees, case studies.