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Date: 13 Jun 2017

Sources Searched: Medline, Embase, CINAHL, HMIC, The Cochrane Library

The Role of the GP in Antenatal Care

[See full search strategy](#)

Evidence Summary:

- Traditional antenatal care includes a series of between 7 and 11 visits; however, the number of visits necessary for adequate care is disputed. Limited data is available regarding the optimal frequency, timing, and content of visits. The number of antenatal care visits therefore should be determined according to the needs and risk status of each woman and her fetus. ([BMJ Best Practice. Routine Antenatal Care](#))
- The American Academy of Pediatrics (AAP) Committee on Fetus and Newborn and American College of Obstetricians and Gynecologists (ACOG) Committee on Obstetric Practice recommends prenatal visits for uncomplicated pregnancies on a monthly basis up to about 28 weeks gestation, then every 2-3 weeks from 28 to 36 weeks gestation, and then weekly thereafter until delivery. ([Guidelines for Perinatal Care, 7th ed](#))
- High level evidence suggests that a reduced number of prenatal visits are associated with increased perinatal mortality compared to a standard number of visits for low-risk women in low- and middle-income countries. This however is not the case for low-risk women in high-income countries. ([Cochrane Database Syst Rev 2015 Jul 16;\(7\)](#)) Women in all settings receiving the reduced number of visits were overall less satisfied.
- Appendix 1 of the [King's Fund Inquiry into the quality of general practice in England](#) (2010) cites an example of a model of shared care for low-risk women which has been in use in Tower Hamlets.

1. The role of GPs in maternity care: what does the future hold?

Author(s): Smith, Alex; Shakespeare, Judy; Dixon, Anna

Publication Date: 2010

URL: <https://www.kingsfund.org.uk/sites/files/kf/Maternity.pdf>

Abstract: Pregnancy is a normal physiological process, and an important life and family event. There are many professionals involved in the care of pregnant women, their babies and their families, including obstetricians, anaesthetists, midwives and GPs. Today, there are two main models of care for pregnant women in the United Kingdom: midwife-led care for low-risk women and consultant-led care for high-risk women. The involvement of GPs in the care of pregnant women has dramatically declined. This paper asks whether there still is a role for GPs in maternity care. We attempt to define a future role for GPs in pre-conception, antenatal and postnatal care and discuss the merits of shared care between GPs and midwives. We begin by setting out the history of GPs' role in maternity care in the United Kingdom and how policy has changed over the past 20 years. We summarise the current role GPs play in maternity services and what current guidance says about the role of the GP in maternity care. We conclude with a discussion of the potential role GPs could play in maternity care.

Database: HMIC

2. Alternative versus standard packages of antenatal care for low-risk pregnancy.

Author(s): Dowswell, Therese; Carroli, Guillermo; Duley, Lelia; Gates, Simon; Gülmezoglu, A Metin; Khan-Neelofur, Dina; Piaggio, Gilda

Source: The Cochrane database of systematic reviews; Jul 2015 (no. 7); p. CD000934

Publication Date: Jul 2015

Publication Type(s): Research Support, Non-u.s. Gov't Meta-analysis Journal Article Review

Available in full text at [Cochrane Library, The](#) - from John Wiley and Sons

Abstract:BACKGROUND The number of visits for antenatal (prenatal) care developed without evidence of how many visits are necessary. The content of each visit also needs evaluation.OBJECTIVES To compare the effects of antenatal care programmes with reduced visits for low-risk women with standard care. SEARCH METHODS We searched the Cochrane Pregnancy and Childbirth Group's Trials Register (23 March 2015), reference lists of articles and contacted researchers in the field.SELECTION CRITERIA Randomised trials comparing a reduced number of antenatal visits, with or without goal-oriented care, versus standard care.DATA COLLECTION AND ANALYSISTwo review authors independently assessed trials for inclusion and risk of bias, extracted data and checked for accuracy. We assessed studies for risk of bias and graded the quality of the evidence.MAIN RESULTS We included seven trials (more than 60,000 women): four in high-income countries with individual randomisation; three in low- and middle-income countries with cluster randomisation (clinics as the unit of randomisation). Most of the data included in the review came from the three large, well-designed cluster-randomised trials that took place in Argentina, Cuba, Saudi Arabia, Thailand and Zimbabwe. All results have been adjusted for the cluster design effect. All of the trials were at some risk of bias as blinding of women and staff was not feasible with this type of intervention. For primary outcomes, evidence was graded as being of moderate or low quality, with downgrading decisions due to risks of bias and imprecision of effects.The number of visits for standard care varied, with fewer visits in low- and middle- income country trials. In studies in high-income countries, women in the reduced visits groups, on average, attended between 8.2 and 12 times. In low- and middle- income country trials, many women in the reduced visits group attended on fewer than five occasions, although in these trials the content as well as the number of visits was changed, so as to be more 'goal-oriented'.Perinatal mortality was increased for those randomised to reduced visits rather than standard care, and this difference was borderline for statistical

significance (risk ratio (RR) 1.14; 95% confidence interval (CI) 1.00 to 1.31; five trials, 56,431 babies; moderate-quality evidence). In the subgroup analysis, for high-income countries the number of deaths was small (32/5108), and there was no clear difference between the groups (RR 0.90; 95% CI 0.45 to 1.80, two trials); for low- and middle-income countries perinatal mortality was significantly higher in the reduced visits group (RR 1.15; 95% CI 1.01 to 1.32, three trials). There was no clear difference between groups for our other primary outcomes: maternal death (RR 1.13, 95% CI 0.50 to 2.57, three cluster-randomised trials, 51,504 women, low-quality evidence); hypertensive disorders of pregnancy (various definitions including pre-eclampsia) (RR 0.95, 95% CI 0.80 to 1.12, six studies, 54,108 women, low-quality evidence); preterm birth (RR 1.02, 95% CI 0.94 to 1.11; seven studies, 53,661 women, moderate-quality evidence); and small-for-gestational age (RR 0.99, 95% CI 0.91 to 1.09, four studies 43,045 babies, moderate-quality evidence). Reduced visits were associated with a reduction in admission to neonatal intensive care that was borderline for significance (RR 0.89; 95% CI 0.79 to 1.02, five studies, 43,048 babies, moderate quality evidence). There were no clear differences between the groups for the other secondary clinical outcomes. Women in all settings were less satisfied with the reduced visits schedule and perceived the gap between visits as too long. Reduced visits may be associated with lower costs. **AUTHORS' CONCLUSIONS** In settings with limited resources where the number of visits is already low, reduced visits programmes of antenatal care are associated with an increase in perinatal mortality compared to standard care, although admission to neonatal intensive care may be reduced. Women prefer the standard visits schedule. Where the standard number of visits is low, visits should not be reduced without close monitoring of fetal and neonatal outcome.

Database: Medline

3. Who should provide routine antenatal care for low-risk women, and how often? A systematic review of randomised controlled trials

Author(s): Khan-Neelofur D.; Gulmezoglu M.; Villar J.

Source: Paediatric and Perinatal Epidemiology; 1998; vol. 12 ; p. 7-26

Publication Date: 1998

Publication Type(s): Review

Available in full text at [Paediatric and Perinatal Epidemiology](#) - from John Wiley and Sons

Abstract: Many activities, the timing and the frequency of visits of conventional antenatal care provided to low-risk pregnant women have most often been introduced without proper scientific evaluation. Few trials, to date, have been conducted to evaluate the effectiveness of antenatal care programmes for low-risk women with varied number of antenatal visits and type of care providers. We have performed a systematic review of these randomised controlled trials. Five randomised controlled trials were identified in which the effectiveness of a schedule of reduced number of antenatal visits ($n = 12,883$) was compared with the existing practice ($n = 9438$). Four of these trials were carried out in developed countries. The difference in the number of visits between intervention and control arms of the trials was moderate. Only one trial achieved a reduction in the median number of visits, from six in the standard care to four in the intervention group, that could be considered to be of health-care relevance for the study population. No significant differences were observed in the two arms of the trials when low birthweight, small-for-gestational-age, Caesarean section, induction of labour, antepartum haemorrhage and postpartum haemorrhage were considered as outcome measures. However, there was a tendency towards an increased rate of preterm delivery in the intervention group in three of the trials. Conversely, the largest trial in Harare, Zimbabwe, demonstrated a statistically significant reduction in preterm delivery in the intervention group (relative risk [RR] 0.88; 95% confidence interval [CI] 0.80, 0.96). Neither the individual studies nor the review had the statistical power to evaluate mortality outcome variables.

When perception of care was assessed, women participating in two trials expressed less satisfaction with frequency of visits in the experimental group. In the London, UK, trial, some women in the reduced number of visits group felt that their expectations were not completely fulfilled. However, an opposite trend was reflected when women were asked for their preference of the type of care for any future pregnancy. We also identified three trials that compared midwife/general practitioner-managed care vs. obstetrician/gynaecologist-led shared care. The results were indicative of similar clinical efficacy of the two groups. However, women's response regarding the continuity of care favoured midwife-led care. From the health economics perspective, there is evidence of cost reduction if antenatal care was provided by staff other than the obstetrician/gynaecologist. The available data demonstrate no significant differences in selected perinatal outcomes for low-risk women receiving care according to a reduced frequency (approximately two visits fewer) of prenatal visits vs. those following the existing practice. However, there are differences in satisfaction with the prenatal care provider and the prenatal care system. There is evidence that a midwife's clinic for provision of antenatal care for low-risk pregnancies is feasible and thereby reduction in costs achievable.

Database: EMBASE

4. Should obstetricians see women with normal pregnancies? A multicentre randomised controlled trial of routine antenatal care by general practitioners and midwives compared with shared care led by obstetricians.

Author(s): Tucker, J S; Hall, M H; Howie, P W; Reid, M E; Barbour, R S; Florey, C D; McIlwaine, G M

Source: BMJ (Clinical research ed.); Mar 1996; vol. 312 (no. 7030); p. 554-559

Publication Date: Mar 1996

Publication Type(s): Research Support, Non-u.s. Gov't Comparative Study Randomized Controlled Trial Clinical Trial Multicenter Study Journal Article

Available in full text at [The BMJ](#) - from Highwire Press

Abstract:OBJECTIVE To compare routine antenatal care provided by general practitioners and midwives with obstetrician led shared care.DESIGNMulticentre randomised controlled trial.SETTING51 general practices linked to nine Scottish maternity hospitals.SUBJECTS1765 women at low risk of antenatal complications.INTERVENTIONRoutine antenatal care by general practitioners and midwives according to a care plan and protocols for managing complications.MAIN OUTCOME MEASURESComparisons of health service use, indicators of quality of care, and women's satisfaction.RESULTSContinuity of care was improved for the general practitioner and midwife group as the number of carers was less (median 5 carers v 7 for shared care group, $P<0.0001$) and the number of routine visits reduced (10.9 v 11.7, $P<0.0001$). Fewer women in the general practitioner and midwife group had antenatal admissions (27% (222/834) v 32% (266/840), $P<0.05$), non-attendances (7% (57) v 11% (89), $P<0.01$) and daycare (12% (102) v 7% (139), $P<0.05$) but more were referred (49% (406) v 36% (305), $P<0.0001$). Rates of antenatal diagnoses did not differ except that fewer women in the general practitioner and midwife group had hypertensive disorders (pregnancy induced hypertension, 5% (37) v 8% (70), $P<0.01$) and fewer had labour induced (18% (149) v 24% (201), $P<0.01$). Few failures to comply with the care protocol occurred, but more Rhesus negative women in the general practitioner and midwife group did not have an appropriate antibody check (2.5% (20) v 0.4% (3), $P<0.0001$). Both groups expressed high satisfaction with care (68% (453/663) v 65% (430/656), $P=0.5$) and acceptability of allocated style of care (93% (618) v 94% (624), $P=0.6$). Access to hospital support before labour was similar (45% (302) v 48% (312) visited labour rooms before giving birth, $P=0.6$).CONCLUSION Routine specialist visits for women initially at low risk of pregnancy complications offer little or no clinical or consumer benefit.

Database: Medline

5. WHO systematic review of randomised controlled trials of routine antenatal care.

Author(s): Carroli, G; Villar, J; Piaggio, G; Khan-Neelofur, D; Gülmezoglu, M; Mugford, M; Lumbiganon, P; Farnot, U; Bersgjø, P; WHO Antenatal Care Trial Research Group

Source: Lancet (London, England); May 2001; vol. 357 (no. 9268); p. 1565-1570

Publication Date: May 2001

Publication Type(s): Meta-analysis Comparative Study Journal Article

Available in full text at [Lancet, The](#) - from ProQuest

Available in print at [Patricia Bowen Library and Knowledge Service West Middlesex university Hospital](#) - from The Lancet

Abstract:BACKGROUND There is a lack of strong evidence on the effectiveness of the content, frequency, and timing of visits in standard antenatal-care programmes. We undertook a systematic review of randomised trials assessing the effectiveness of different models of antenatal care. The main hypothesis was that a model with a lower number of antenatal visits, with or without goal-oriented components, would be as effective as the standard antenatal-care model in terms of clinical outcomes, perceived satisfaction, and costs.METHODS The interventions compared were the provision of a lower number of antenatal visits (new model) and a standard antenatal-visits programme. The selected outcomes were pre-eclampsia, urinary-tract infection, postpartum anaemia, maternal mortality, low birthweight, and perinatal mortality. We also selected measures of women's satisfaction with care and cost-effectiveness. This review drew on the search strategy developed for the Cochrane Pregnancy and Childbirth Group of the Cochrane Collaboration.FINDINGS Seven eligible randomised controlled trials were identified. 57418 women participated in these studies: 30799 in the new-model groups (29870 with outcome data) and 26619 in the standard-model groups (25821 with outcome data). There was no clinically differential effect of the reduced number of antenatal visits when the results were pooled for pre-eclampsia (typical odds ratio 0.91 [95% CI 0.66-1.26]), urinary-tract infection (0.93 [0.79-1.10]), postpartum anaemia (1.01), maternal mortality (0.91 [0.55-1.51]), or low birthweight (1.04 [0.93-1.17]). The rates of perinatal mortality were similar, although the rarity of the outcome did not allow formal statistical equivalence to be attained. Some dissatisfaction with care, particularly among women in more developed countries, was observed with the new model. The cost of the new model was equal to or less than that of the standard model.INTERPRETATION A model with a reduced number of antenatal visits, with or without goal-oriented components, could be introduced into clinical practice without risk to mother or baby, but some degree of dissatisfaction by the mother could be expected. Lower costs can be achieved.

Database: Medline

6. Family practice versus specialist care for low-risk obstetrics: examining patient satisfaction in Newfoundland and Labrador.

Author(s): Kidd, Monica; Avery, Susan; Duggan, Norah; McPhail, Jennifer

Source: Canadian family physician Medecin de famille canadien; Oct 2013; vol. 59 (no. 10); p. e456

Publication Date: Oct 2013

Publication Type(s): Comparative Study Journal Article Evaluation Studies

Available in full text at [Canadian Family Physician](#) - from National Library of Medicine

Abstract:OBJECTIVE To investigate patient satisfaction with 3 models of low-risk obstetrics care: solo care by a GP, group care by GPs, and specialist care. DESIGN Three-arm study comparing results of a self-administered, anonymous questionnaire. SETTING Two academic family practices and the labour and delivery ward in St John's, Nfld. PARTICIPANTS A total of 220 women deemed to have low-risk pregnancies; 82 women completed the questionnaire (37% response rate). MAIN OUTCOME MEASURES Patient satisfaction scores obtained from a modified version of the Patient Expectations and Satisfaction with Prenatal Care instrument. RESULTS Low-risk maternity patients' satisfaction with obstetric care provided by GPs in a group-care setting was equivalent to that with obstetric care provided by GPs working solo and greater than that with obstetric care provided by specialists. CONCLUSION Patients found that group care by GPs was an acceptable means of receiving obstetric services in a low-risk setting. Therefore, a group practice model might provide an attractive means for FPs to keep obstetrics within the scope of primary care.

Database: Medline

7. The costs of alternative types of routine antenatal care for low-risk women: shared care vs care by general practitioners and community midwives.

Author(s): Ratcliffe, Julie; Ryan, Mandy; Tucker, Janet

Source: Journal of Health Services Research and Policy; 1998; vol. 1 (no. 3); p. 135-140

Publication Date: 1998

Abstract:OBJECTIVES: To compare the costs to the health service, women and their families of routine antenatal care provided by either traditional obstetrician-led shared care or general practitioner (GP)/community midwife care. METHOD: A multicentre randomised controlled trial in 51 general practices linked to nine maternity hospitals in Scotland: 1667 low-risk pregnant women provided information on costs to the health service. 704 of these women provided information on non-health service costs. RESULTS: GP/midwife antenatal care was found to cost statistically significantly less than shared care. This was the case for investigations carried out at routine antenatal visits (GP/midwife = 87.25, shared care = 91.15, $p=0.05$), staffing costs at routine antenatal visits (GP/midwife = 127.76, shared care = 131.09, $p=0.001$), and non-health service costs incurred by women and their companions (GP/midwife = 118.53, shared care = 133.49, $p=0.001$). While non-routine care in the GP/midwife arm of the trial costs less than in the shared care arm, the difference was not statistically significant (GP/midwife = 83.74, shared care = 94.43, $p=0.46$). The total societal cost of antenatal care was 417.28 per woman in the GP/midwife arm of the trial and 450.19 in the shared care arm of the trial. This difference was statistically significant ($P<0.001$). The application of sensitivity analysis did not change these results. CONCLUSIONS: GP/midwife antenatal care is a satisfactory option for low-risk pregnant women in Scotland provided that clinical outcomes and women's satisfaction are at least the same as those of women with shared care. 7 tables 19 refs. [Abstract]

Database: HMIC

8. Pregnancy care of the low risk woman: the community-hospital interface

Author(s): Kean L.H.; Liu D.T.; Macquisten S.

Source: International journal of health care quality assurance; 1996; vol. 9 (no. 5); p. 39-44

Publication Date: 1996

Publication Type(s): Article

Available in full text at [International Journal of Health Care Quality Assurance](#) - from ProQuest

Abstract: Aims to determine the extent to which women suitable for community-based antenatal and intrapartum care will require hospital contact. Reports on an historical cohort study of low risk women who underwent standard shared care and for whom the records for both pregnancy and delivery were complete at The City Hospital and University Hospital, Nottingham. Concludes that the shift to community-based care aims to bring many improvements to the overall care and satisfaction of pregnant women. However, it may not reduce the workload of hospital-based services to a great extent as the majority of women, even if low risk at booking, will require some hospital input at some time during pregnancy or labour.

Database: EMBASE

9. Low-risk pregnancies: Does the number of prenatal visits impact outcomes?

Author(s): Carter E.; Tuuli M.; Odibo A.; Macones G.; Cahill A.; Caughey A.

Source: American Journal of Obstetrics and Gynecology; Jan 2014; vol. 210 (no. 1)

Publication Date: Jan 2014

Publication Type(s): Conference Abstract

Abstract: **OBJECTIVE:** To our knowledge, there are no evidence-based recommendations to guide the optimal number of prenatal visits (PNV) in uncomplicated pregnancies to optimize outcomes; thus, decisionmaking regarding frequency is left to provider discretion. We studied the effect of number of prenatal visits on pregnancy outcomes at or near term. **STUDY DESIGN:** Among a cohort of over 12,000 consecutive nonanomalous term births, women without any co-morbidities reported or identified during pregnancy were included. The number of PNV and pregnancy outcome data were collected. Patients with ≥ 10 PNV ($>$ top quartile for number of PNV). Primary outcomes were birth weight, mode of delivery, NICU admission, and gestational age at delivery. Logistic regression was used to adjust for maternal race and BMI. **RESULTS:** 4,470 patients in the cohort qualified for the study with a known number of PNV and no pre-existing medical conditions or medical complications that developed during pregnancy. Of these, 24% (N=1081) had > 10 PNV and the remaining 76% (N=3389) had 10 or fewer. More prenatal visits were associated with a lower risk of early term births (aOR 0.7, 95% CI 0.6 - 0.8) and higher rates of late term births (aOR 1.6, 95% CI 1.3 - 2.0). However, > 10 visits was also associated with a 30% greater risk of labor induction and a 50% greater risk of cesarean (table). **CONCLUSION:** We found that low risk women with > 10 prenatal visits had lower rates of early term births, but higher rates of labor induction and cesarean. These findings suggest that the widely accepted, but largely unstudied, idea that more is better for number of prenatal visits should be challenged. (Table presented).

Database: EMBASE

10. Antenatal care packages with reduced visits and perinatal mortality: A secondary analysis of the WHO Antenatal Care Trial

Author(s): Vogel J.P.; Habib N.A.; Souza J.P.; Gulmezoglu A.M.; Dowswell T.; Carroli G.; Baaqeel H.S.; Lumbiganon P.; Piaggio G.; Oladapo O.T.

Source: Reproductive Health; 2013; vol. 10 (no. 1)

Publication Date: 2013

Publication Type(s): Article

Available in full text at [Reproductive Health](#) - from ProQuest

Available in full text at [Reproductive Health](#) - from BioMed Central

Abstract:Background: In 2001, the WHO Antenatal Care Trial (WHOACT) concluded that an antenatal care package of evidence-based screening, therapeutic interventions and education across four antenatal visits for low-risk women was not inferior to standard antenatal care and may reduce cost. However, an updated Cochrane review in 2010 identified an increased risk of perinatal mortality of borderline statistical significance in three cluster-randomized trials (including the WHOACT) in developing countries. We conducted a secondary analysis of the WHOACT data to determine the relationship between the reduced visits, goal-oriented antenatal care package and perinatal mortality. Methods. Exploratory analyses were conducted to assess the effect of baseline risk and timing of perinatal death. Women were stratified by baseline risk to assess differences between intervention and control groups. We used linear modeling and Poisson regression to determine the relative risk of fetal death, neonatal death and perinatal mortality by gestational age. Results: 12,568 women attended the 27 intervention clinics and 11,958 women attended the 26 control clinics. 6,160 women were high risk and 18,365 women were low risk. There were 161 fetal deaths (1.4%) in the intervention group compared to 119 fetal deaths in the control group (1.1%) with an increased overall adjusted relative risk of fetal death (Adjusted RR 1.27; 95% CI 1.03, 1.58). This was attributable to an increased relative risk of fetal death between 32 and 36 weeks of gestation (Adjusted RR 2.24; 95% CI 1.42, 3.53) which was statistically significant for high and low risk groups. Conclusion: It is plausible the increased risk of fetal death between 32 and 36 weeks gestation could be due to reduced number of visits, however heterogeneity in study populations or differences in quality of care and timing of visits could also be playing a role. Monitoring maternal, fetal and neonatal outcomes when implementing antenatal care protocols is essential. Implementing reduced visit antenatal care packages demands careful monitoring of maternal and perinatal outcomes, especially fetal death. © 2013 Vogel et al.; licensee BioMed Central Ltd.

Database: EMBASE

11. Shared antenatal care and delivery: Findings from a population-based study

Author(s): Reulbach U.; Ladewig E.; Beary E.; O'Dowd T.

Source: Archives of Disease in Childhood: Fetal and Neonatal Edition; Apr 2012; vol. 97

Publication Date: Apr 2012

Publication Type(s): Conference Abstract

Available in full text at [Fetal and Neonatal](#) - from Highwire Press

Abstract:In Ireland, all expectant mothers are entitled to free maternity care, covering antenatal visits, labour, delivery and postnatal care. This study presents findings from the first wave of data collection from the Growing Up in Ireland longitudinal cohort study. The sample of 11,134 nine month old infants was randomly selected from the national Child Benefit Register. From those, data from 10,912 mothers who provided valid answers to questions regarding antenatal care was included in the analyses. Data collection consisted of questionnaires completed with the mother addressing pregnancy, delivery and infant's health. Pearson's Chi Square tests and crude and

adjusted logistic regression analyses were used for the analysis which was based on statistically reweighted data to represent the population structure of Ireland. Shared care (between GP and other health professional) was provided in 77.9% [95% CI: 77.1-78.7%], private consultant care alone in 12.4% [11.8-13.0%], hospital clinic care alone in 7.3% [6.8-7.8%] and other care in 2.4%. The chance for a normal delivery was highest if shared care was provided (adjusted for parity, maternal age, occupational household class and medical covered coverage) with an odds ratio of 1.21 [1.10-1.33; $p < 0.001$] when compared to other form of antenatal care. In line with the NICE clinical guideline regarding antenatal care, our results emphasise that Midwife- and GP-led models of care should be offered to women with an uncomplicated pregnancy.

Database: EMBASE

12. A randomised controlled trial comparing two schedules of antenatal visits: The antenatal care project

Author(s): Sikorski J.; Wilson J.; Clement S.; Das S.; Smeeton N.

Source: British Medical Journal; Mar 1996; vol. 312 (no. 7030); p. 546-553

Publication Date: Mar 1996

Publication Type(s): Article

Available in print at [Patricia Bowen Library and Knowledge Service West Middlesex university Hospital](#) - from British Medical Journal (BMJ)

Available in full text at [The BMJ](#) - from Highwire Press

Abstract:Objective - To compare the clinical and psychosocial effectiveness of the traditional British antenatal visit schedule (traditional care) with a reduced schedule of visits (new style care) for low risk women, together with maternal and professional satisfaction with care. Design - Randomised controlled trial. Setting - Places in south east London providing antenatal care for women receiving shared care and planning to deliver in one of three hospitals or at home. Subjects - 2794 women at low risk fulfilling the trial's inclusion criteria between June 1993 and July 1994. Main outcome measures - Measures of fetal and maternal morbidity, health service use, psychosocial outcomes, and maternal and professional satisfaction. Results - Pregnant women allocated to new style care had fewer day admissions (0.8 v 1.0; $P = 0.002$) and ultrasound scans (1.6 v 1.7; $P = 0.003$) and were less often suspected of carrying fetuses that were small for gestational age (odds ratio 0.73; 95% confidence interval 0.54 to 0.99). They also had some poorer psychosocial outcomes: for example, they were more worried about fetal wellbeing antenatally and coping with the baby postnatally, and they had more negative attitudes to their babies, both in pregnancy and postnatally. These women were also more dissatisfied with the number of visits they received (odds ratio 2.50; 2.00 to 3.11). Conclusions - Patterns of antenatal care involving fewer routine visits for women at low risk may lead to reduced psychosocial effectiveness and dissatisfaction with frequency of visits. The number of antenatal day admissions and ultrasound scans performed may also be reduced. For the variables reported, the visit schedules studied are similar in their clinical effectiveness. Uncertainty remains as to the clinical effectiveness of reduced visit schedules for rare pregnancy problems.

Database: EMBASE

13. Does the frequency of outpatient visits in addition to the regularly scheduled prenatal visits identify a poor pregnancy outcome?

Author(s): Jagoe, Jennifer M; Magann, Everett F; Chauhan, Suneet P; Morrison, John C

Source: The Australian & New Zealand journal of obstetrics & gynaecology; Apr 2004; vol. 44 (no. 2); p. 149-151

Publication Date: Apr 2004

Publication Type(s): Research Support, Non-u.s. Gov't Journal Article

Available in full text at [Australian and New Zealand Journal of Obstetrics and Gynaecology](#) - from John Wiley and Sons

Abstract: Do extra outpatient visits, in addition to regularly scheduled visits, identify a pregnancy at risk of an adverse outcome? This prospective investigation analysed additional outpatient visits, by low-risk obstetric patients. One hundred and sixty-two women were evaluated with one to two additional visits and 66 had three or more visits. Antepartum and intrapartum pregnancy complications between groups was similar suggesting that frequency of additional visits does not identify a pregnancy at risk for an adverse outcome.

Database: Medline

14. An economic evaluation comparing two schedules of antenatal visits.

Author(s): Henderson, Jane

Source: Journal of Health Services Research and Policy; 2000; vol. 5 (no. 2); p. 69-75

Publication Date: 2000

Abstract: OBJECTIVES: To conduct an economic evaluation comparing a traditional antenatal visiting schedule (traditional care) with a reduced schedule of visits (new style care) for women at low risk of complications. METHODS: Economic evaluation using the results of a randomised controlled trial, the Antenatal Care Project. This took place between 1993 and 1994 in antenatal clinics in South East London and involved 2,794 women at low risk of complications. RESULTS: The estimated baseline costs to the UK National Health Service (NHS) for the traditional schedule were 544 per woman, of which 251 occurred antenatally, with a range of 327-1,203 per woman. The estimated baseline costs to the NHS for the reduced visit schedule was 563 per woman, of which 225 occurred antenatally, with a range of 274-1,741 per woman. Savings from new style care that arose antenatally were offset by the greater numbers of babies in this group who required special or intensive care. Sensitivity analyses based on possible variations in unit costs and resource use and modelled postnatal stay showed considerable variation and substantial overlap in costs. CONCLUSIONS: Patterns of antenatal care involving fewer routine visits for women at low risk of complications are unlikely to result in savings to the health service. In addition, women who had the reduced schedule of care reported greater dissatisfaction with their care and poorer psychosocial outcomes which argues against reducing numbers of antenatal visits. 3 tables 23 refs. 2 appendices [Abstract]

Database: HMIC

15. Does reducing the frequency of routine antenatal visits have long term effects? Follow up of participants in a randomised controlled trial.

Author(s): Clement, S; Candy, B; Sikorski, J; Wilson, J; Smeeton, N

Source: British journal of obstetrics and gynaecology; Apr 1999; vol. 106 (no. 4); p. 367-370

Publication Date: Apr 1999

Publication Type(s): Research Support, Non-u.s. Gov't Randomized Controlled Trial Clinical Trial Journal Article

Available in print at [Patricia Bowen Library and Knowledge Service West Middlesex university Hospital](#) - from British Journal of Obstetrics and Gynaecology (BJOG)

Abstract:1117 low risk women, who had been randomly allocated to either the traditional schedule of 13 antenatal visits or a reduced schedule of six to seven visits, were followed up 2.7 years after their delivery. Follow up was by means of a postal questionnaire (assessing the mother-child relationship, maternal psychological wellbeing, health service use, health-related behaviour and health beliefs), and patient record data on the frequency of contacts in general practice. There was no evidence of differences between the two groups for any of the outcomes examined. Offering a reduced schedule of routine antenatal visits to low risk women does not appear to have any long term effects.

Database: Medline

16. Too much of a good thing? The case for a reduced schedule of antenatal visits

Author(s): Lobo A.

Source: The practising midwife; Apr 1998; vol. 1 (no. 4); p. 19-21

Publication Date: Apr 1998

Publication Type(s): Review

Database: EMBASE

17. Does reducing the number of prenatal office visits for low-risk women result in increased use of other medical services?

Author(s): Mcduffie Jr. R.S.; Bischoff K.J.; Beck A.; Orleans M.

Source: Obstetrics and Gynecology; Jul 1997; vol. 90 (no. 1); p. 68-70

Publication Date: Jul 1997

Publication Type(s): Article

Available in full text at [Obstetrics and Gynecology](#) - from Ovid

Abstract:Objective: To determine whether a schedule of fewer prenatal visits than traditional for women with low-risk pregnancies leads to additional medical services outside prescribed prenatal care. Methods: In a randomized, controlled trial conducted within a group-model health maintenance organization, we studied 2328 pregnant women judged to be at low risk of adverse perinatal outcomes. After risk assessment and consent, women were assigned to an experimental (nine visits) or a control (14 visits) schedule, with additional visits if requested either by providers after identifying risks or by women seeking additional services. We recorded whether women underwent maternal serum alpha-fetoprotein screening, obstetric ultrasound examination at 15-24 weeks' gestation, hematocrit testing after 20 weeks, and diabetic screening. We also noted visits to nonobstetric care providers or our emergency care center, telephone calls, and hospitalizations. Results: We found no significant differences between the two groups for prenatal blood tests, visits

to nonobstetric providers or to the emergency care center, telephone calls from patients, or hospital admissions. A significantly greater percentage of women underwent ultrasound examinations at 15-24 weeks in the control group compared with the experimental group (57.3% and 53.1%, respectively; $P = .045$). Conclusion: The reduction in prenatal visits achieved using the experimental schedule was not accompanied by an increase in the use of other medical services compared with the routine schedule. The use of the schedule proposed by the Expert Panel on the Content of Prenatal Care improved the efficiency of delivery of prenatal care to low-risk women.

Database: EMBASE

18. Effect of frequency of prenatal care visits on perinatal outcome among low-risk women. A randomized controlled trial.

Author(s): McDuffie, R S; Beck, A; Bischoff, K; Cross, J; Orleans, M

Source: JAMA; Mar 1996; vol. 275 (no. 11); p. 847-851

Publication Date: Mar 1996

Publication Type(s): Research Support, Non-u.s. Gov't Randomized Controlled Trial Clinical Trial Journal Article

Available in print at [Patricia Bowen Library and Knowledge Service West Middlesex university Hospital](#) - from Journal of the American Medical Association (JAMA)

Abstract:OBJECTIVES In 1989, the Expert Panel on the Content of Prenatal Care established guidelines on the timing and content of prenatal care, including a schedule consisting of fewer prenatal visits than traditionally provided, for women at low risk of adverse perinatal outcomes. We tested the hypothesis that there are no significant increases in adverse perinatal outcomes when low-risk women are seen in a prenatal care visit schedule of fewer visits than routinely advised.DESIGN Randomized controlled trial.SETTING Group-model health maintenance organization.PATIENTSA total of 2764 pregnant women, judged to be at low risk of adverse perinatal outcomes.INTERVENTIONSFollowing risk assessment, participants were randomly assigned to an experimental schedule (nine visits) or a control schedule (14 visits) with additional visits as indicated or as desired by the patient.MAIN OUTCOME MEASURESPreterm delivery, preeclampsia, cesarean delivery, low birth weight and patient's satisfaction with care.RESULTSOn average, there were 2.7 fewer visits observed in the experimental group than in the control group. There were no significant increases in the main outcomes of the experimental group; preterm delivery (relative risk [RR], 1.08; 95% confidence interval [CI], 0.92 to 1.27; $P = .19$), preeclampsia (RR, 0.94; 95% CI, 0.78 to 1.14, $P = .74$), cesarean delivery (RR, 1.04; 95% CI, 0.93 to 1.17; $P = .25$), and low birth weight (RR, 0.94; 95% CI, 0.78 to 1.12; $P = .76$). There were no differences between the two groups in patients' satisfaction with quality of prenatal care.CONCLUSIONIn this study, good perinatal outcomes and patient satisfaction were maintained when the prenatal visit schedule proposed by the Expert Panel on the Content of Prenatal Care was observed.

Database: Medline

19. A randomised controlled trial comparing two schedules of antenatal visits: The antenatal care project

Author(s): Sikorski J.; Wilson J.; Clement S.; Das S.; Smeeton N.

Source: British Medical Journal; Mar 1996; vol. 312 (no. 7030); p. 546-553

Publication Date: Mar 1996

Publication Type(s): Article

Available in print at [Patricia Bowen Library and Knowledge Service West Middlesex university Hospital](#) - from British Medical Journal (BMJ)

Available in full text at [The BMJ](#) - from Highwire Press

Abstract:Objective - To compare the clinical and psychosocial effectiveness of the traditional British antenatal visit schedule (traditional care) with a reduced schedule of visits (new style care) for low risk women, together with maternal and professional satisfaction with care. Design - Randomised controlled trial. Setting - Places in south east London providing antenatal care for women receiving shared care and planning to deliver in one of three hospitals or at home. Subjects - 2794 women at low risk fulfilling the trial's inclusion criteria between June 1993 and July 1994. Main outcome measures - Measures of fetal and maternal morbidity, health service use, psychosocial outcomes, and maternal and professional satisfaction. Results - Pregnant women allocated to new style care had fewer day admissions (0.8 v 1.0; P = 0.002) and ultrasound scans (1.6 v 1.7; P = 0.003) and were less often suspected of carrying fetuses that were small for gestational age (odds ratio 0.73; 95% confidence interval 0.54 to 0.99). They also had some poorer psychosocial outcomes: for example, they were more worried about fetal wellbeing antenatally and coping with the baby postnatally, and they had more negative attitudes to their babies, both in pregnancy and postnatally. These women were also more dissatisfied with the number of visits they received (odds ratio 2.50; 2.00 to 3.11). Conclusions - Patterns of antenatal care involving fewer routine visits for women at low risk may lead to reduced psychosocial effectiveness and dissatisfaction with frequency of visits. The number of antenatal day admissions and ultrasound scans performed may also be reduced. For the variables reported, the visit schedules studied are similar in their clinical effectiveness. Uncertainty remains as to the clinical effectiveness of reduced visit schedules for rare pregnancy problems.

Database: EMBASE

20. Is community-led maternity care a feasible option for women assessed at low risk and those with complicated pregnancies? Results of a population based study in south Camden, London.

Author(s): Fleissig, A; Kroll, D; McCarthy, M

Source: Midwifery; Dec 1996; vol. 12 (no. 4); p. 191-197

Publication Date: Dec 1996

Publication Type(s): Research Support, Non-u.s. Gov't Journal Article

Abstract:OBJECTIVEto assess the feasibility of obstetric offering community-led maternity care to most women, both those assessed to be at low obstetric risk and those with complicated pregnancies at 'booking'. Community-led care is defined as appropriate care by community midwives and general practitioners during pregnancy, birth and the puerperium, with routine hospital care kept to a minimum.DESIGNobservational study.SETTINGSouth Camden, London, UK: University College Obstetric Hospital and community.PARTICIPANTS453 women, resident in South Camden, including those 'booked' for home births, who were 'booked' for maternity care at University College Hospital between October 1993 and April 1994.MEASUREMENTS AND FINDINGSthis paper assesses the extent to which community midwives and general practitioners were able to give local women community-led care and describes the amount of care provided to women by their 'named' community midwives and team. Most local women were eligible for community-led care and 85%

planned to have it. The majority of care was given by the community midwives, but the amount of hospital input varied. Women who remained at low obstetric risk generally had their antenatal care in the community, only attending hospital for two or three routine assessments and occasional extra referrals. Women attending hospital more frequently usually had a complicated pregnancy. Care given by a woman's 'named' midwives was generally provided antenatally, but care from familiar midwives was less common in labour and postnatally. KEY CONCLUSIONS AND IMPLICATIONS FOR PRACTICE community-led maternity care can be provided to the majority of women, even those with a complicated pregnancy, as long as specialist opinion and facilities are accessible and women are referred as necessary. Although the majority of women had access to local antenatal care from staff they got to know, the 'named' community midwives and teams found it difficult to provide comprehensive care, particularly to the women who developed complications, so priorities need to be established. Further research is needed to compare alternative models of care and their costs.

Database: Medline

21. Opinions of consultant obstetricians in the Northern Region regarding the provision of intrapartum care by GPs.

Author(s): Frain, J P; Flynn, P M; Jones, A J

Source: The British journal of general practice : the journal of the Royal College of General Practitioners; Oct 1996; vol. 46 (no. 411); p. 611-612

Publication Date: Oct 1996

Publication Type(s): Research Support, Non-u.s. Gov't Journal Article

Available in full text at [British Journal of General Practice, The](#) - from National Library of Medicine

Available in full text at [British Journal of General Practice](#) - from Highwire Press

Abstract: Consultants with experience of GP intrapartum care believe it is safe for the low-risk woman. However, GPs are perceived as lacking enthusiasm and as having varying degrees of obstetric expertise. Consultants feel that women themselves are not requesting more intrapartum care from GPs.

Database: Medline

22. Women's satisfaction with traditional and reduced antenatal visit schedules

Author(s): Clement S.; Sikorski J.; Wilson J.; Das S.; Smeeton N.

Source: Midwifery; Sep 1996; vol. 12 (no. 3); p. 120-128

Publication Date: Sep 1996

Publication Type(s): Article

Abstract: OBJECTIVE: to ascertain: (i) which demographic, obstetric, maternity care, practical and attitudinal variables, and which variables relating to social support and life problems predict satisfaction with traditional antenatal visit schedules; and (ii) which of these variables predict satisfaction with reduced antenatal visit schedules. DESIGN: a secondary analysis of data from the Antenatal Care Project (a randomised controlled trial comparing two schedules of routine antenatal visits). SETTING: three hospitals and their community sites in south-east London. PARTICIPANTS: 1882 pregnant women, that is all those who took part in the Antenatal Care Project, on whom maternity record data were available, and who returned their antenatal questionnaire. INTERVENTION: participants were randomly allocated to follow either the traditional schedule of 13 routine antenatal visits, or a reduced schedule of seven visits for nulliparous women and six visits for multiparous women. MEASUREMENTS: a questionnaire developed specifically for the Antenatal Care Project. Also some data extracted from women's maternity records. FINDINGS: women satisfied with

reduced schedules were more likely to live in rented accommodation, and to have a caregiver who both listened and encourage them to ask questions than women not satisfied with reduced schedules. Women satisfied with the reduced schedules were less likely to be depressed in pregnancy than those not satisfied with reduced schedules. Women satisfied with the traditional schedule were more likely to have their general practitioner involved in their antenatal care, and to receive social support from relatives than those not satisfied with the traditional schedule. Initial preferences and expectations were also associated with satisfaction. KEY CONCLUSIONS AND IMPLICATIONS FOR PRACTICE: (i) groups most likely to be satisfied with traditional or reduced antenatal visit schedules cannot be easily identified. It is therefore necessary to talk to women individually, and tailor care to their particular preferences; (ii) social support for depressed women needs to be safeguarded if reduced schedules are to be introduced; (iii) improving the psychosocial quality of antenatal care may be a good strategy for making reduced visit schedules more acceptable to pregnant women.

Database: EMBASE

23. Alternative prenatal care: Impact of reduced visit frequency, focused visits and continuity of care

Author(s): Binstock M.A.; Wolde-Tsadik G.

Source: Journal of Reproductive Medicine for the Obstetrician and Gynecologist; 1995; vol. 40 (no. 7); p. 507-512

Publication Date: 1995

Publication Type(s): Article

Abstract:OBJECTIVE: To investigate the impact of an alternative prenatal care program for low-risk patients. STUDY DESIGN: Five hundred forty-nine low- risk pregnant women were allocated to the study and control groups. The study group received, on average, eight visits, all of them with one of nine study providers. Each study visit had specific objectives and accompanying targeted patient education handouts. The control group received the usual prenatal care (on average, 13 visits) with different providers, according to the customary schedule. RESULTS: There were no significant pregnancy outcome differences between the groups. The study vs. control group differed significantly ($P < .0001$) in patient satisfaction regarding the number of prenatal visits. There was a higher level of satisfaction in the study group concerning continuity of care ($P < .0001$). The alternative prenatal care program reduced the number of prenatal visits by 27% and was not associated with any change in maternal or perinatal outcomes. Patient satisfaction parameters were either maintained or improved with alternative prenatal care. CONCLUSION: An alternative prenatal care program for low-risk patients reduced resource utilization without adversely affecting prenatal care process variables, pregnancy outcome or patient satisfaction.

Database: EMBASE

24. The role of general practice in maternity care: report of the RCGP Maternity Care Group

Publication Date: 1995

Publication Type(s): Book

URL: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2560263/>

Abstract: This report is aimed at those concerned with and involved in maternity care in the community and is intended as a discussion document to stimulate debate on the subject. It considers the GPs role in the overall system of health care delivery, and specifically in the provision of maternity care, emphasising the relationship with other maternity care workers. The implications of the Changing Childbirth report are identified and discussed. The paper then focuses on the nature and content of maternity care. The different stages of care are set out and for each stage the aim is stated, ways of achieving that aim are noted, recent trends are described and the contribution of general practice is discussed. Some medico-legal issues are defined. Other aspects explored include the relationship between primary and secondary health care, the concept of teamwork, the training needs of general practitioners, and quality issues. Cites 24 references.

Database: HMIC

25. Is antenatal care apportioned according to obstetric risk? The Scottish antenatal care study

Author(s): Tucker J.; Du Florey V.C.; Howie P.; McIlwaine G.; Hall M.

Source: Journal of Public Health Medicine; 1994; vol. 16 (no. 1); p. 60-70

Publication Date: 1994

Publication Type(s): Article

Abstract: A retrospective cohort study of case records of antenatal care was carried out to describe and compare antenatal services in Scotland according to type of hospital and risk category of women. The study took place at 15 randomly selected maternity hospitals which were divided into teaching hospitals (n = 5), rural catchment hospitals (n = 2), and district general hospitals divided by size as those with 1000-1699 deliveries per year (n = 4), and those with ≥ 1700 deliveries per year (n = 4). The subjects were 3574 (87.7 per cent) of 4069 eligible women who delivered in the last quarter of 1989 at these hospitals. Of those 3574, 19 per cent (675) were considered to be high risk at booking, 64 per cent (2899) continued low risk throughout their pregnancy and the remaining 17 per cent (608) changed from low risk to high risk during pregnancy. The main outcome measures were the number, timing, location and supervision of antenatal visits and antenatal admissions in relation to hospital types and obstetric risk categories, and adverse pregnancy outcomes in relation to risk categories. It was found that 97 per cent of all women had care shared by general practitioner (GP) and hospital specialist agreement. The majority (64 per cent) of antenatal visits took place away from the hospital of delivery, with GPs responsible for the largest proportion of all antenatal visits (43.5 per cent) compared with specialist hospital doctors (36 per cent) and midwives (11.5 per cent). Wide variations in the use of different personnel groups to deliver antenatal care were observed between hospitals, particularly in the use of midwives to supervise visits (4-34 per cent). The median number of antenatal visits was 14 (mean 13.9, SD 3.9). Within hospital types the differences in the mean number of antenatal visits between the three risk categories were small (one to two visits) and the direction inconsistent. In all types of hospital, outset high-risk women and those who changed to high risk were more likely to have hospital admission than those who continued as low risk. Significantly more women in the high-risk categories experienced adverse pregnancy outcomes than women who continued at low risk. The conclusions drawn from these results are that the pattern of antenatal visits showed little variation according to hospital type or risk category, and that the number of antenatal visits for low-risk women greatly exceeded the recommendations of the 1982 report of the Royal College of Obstetricians and Gynaecologists of a minimum 5-7 visits for low-risk

multiparae and for 8-9 visits for low-risk primiparae. There were substantial variations between the type of care givers by hospital type and especially between individual hospitals. Trials of the most appropriate number of antenatal visits and type of care giver are required to determine the most effective and acceptable patterns of antenatal care particularly among low-risk women.

Database: EMBASE

26. Shared antenatal care between family health services and hospital (consultant) services for low risk women.

Author(s): Chan, F Y; Pun, T C; Tse, L Y; Lai, P; Ma, H K

Source: Asia-Oceania journal of obstetrics and gynaecology; Sep 1993; vol. 19 (no. 3); p. 291-298

Publication Date: Sep 1993

Publication Type(s): Journal Article

Abstract:Four thousand four hundred and seventy-two patients were recruited into a project to test the efficacy of a Shared Care System in the management of low risk antenatal patients. The patients were scored according to a simple point scoring system. Three thousand three hundred and forty-seven (74.8%) were scored as low risk. Fifty point two percent (1,682) of these low risk patients received the conventional system of care and acted as controls; while 49.8% (1,665) received shared care, where they were seen jointly by midwives, general doctors and hospital specialists. It was found that with the use of shared care, there was a significant decrease in workload to the hospital specialty clinics. Not only was the antenatal diagnostic rate of intrauterine growth retardation (IUGR) significantly improved, but the mean gestations at which IUGR, malpresentations, and pregnancy induced hypertension were diagnosed were also significantly earlier. The number of antenatal cardiotocographs performed, as well as the number of hospital admissions and mean duration of stay were decreased in the study group. The overall cost savings to the hospital was calculated if the shared care system was generally adopted.

Database: Medline

27. Choice and chance in low risk maternity care

Source: British Medical Journal; 1991; vol. 303 (no. 6816); p. 1487-1488

Publication Date: 1991

Publication Type(s): Article

Available in print at [Patricia Bowen Library and Knowledge Service West Middlesex university Hospital](#) - from British Medical Journal (BMJ)

Available in full text at [The BMJ](#) - from Highwire Press

Abstract:In many parts of the country choice about where women can give birth has been narrowing, and between 1980 and 1990 the number of isolated general practitioners (GP) maternity units in the UK has been halved. The view that larger hospitals are safer has been widely accepted without critical examination of the evidence. GP maternity care has not been shown to be uneconomic for the public sector or its users. The authors suggest that the role of GPs in normal delivery should be reviewed, and that a positive step would be to recognise and enhance the role of midwives as specialists in normal delivery. GPs and midwives should be able to experience maternity care in a low technology setting as part of their training, and should be given opportunities to maintain and develop their skills. The authors conclude that if women are to be given a choice in maternity arrangements, attention must be refocused on the needs of the majority of women who are unlikely to need an obstetrician at delivery, and whose babies are at low risk of developing problems. Cites 45 references.

Database: HMIC

28. Economies of scale and low risk maternity care: what is the evidence?

Source: Maternity Action; Sep 1990 (no. 46); p. 6-8

Publication Date: Sep 1990

Publication Type(s): Article

Abstract: The policy of centralising maternity services in large consultant obstetric units is based on the argument that this is the safest option for patients and the most economic use of resources. The author reviews the research into comparative costs for maternity care, and concludes that the evidence does not suggest that general practitioner (GP) care is uneconomic. She calls for further research into both the effectiveness and costs of GP maternity care. The continuing closure of small maternity units on grounds of rationalisation may merely represent a transfer of costs between sectors of the economy and districts may lose unmeasurable resources as voluntary support for community hospitals cannot be transferred to the district hospital. Better appraisal of options in maternity care may be facilitated by improved NHS accounting data when resource management initiatives are implemented. More cooperation between the many different providers of maternity care and the consumers is also essential for better planning of services. Cites 13 references.

Database: HMIC

Strategy 220964

#	Database	Search term	Results
1	Medline	(Gp*1 OR "general practitioner*").ti,ab	123496
2	Medline	exp "PHYSICIANS, FAMILY"/	15556
3	Medline	(1 OR 2)	134204
4	Medline	("antenatal care" OR "prenatal care" OR "pre natal care").ti,ab	13967
5	Medline	exp "PRENATAL CARE"/	22985
6	Medline	(4 OR 5)	30929
7	Medline	(3 AND 6)	404
8	Medline	exp "FAMILY PRACTICE"/	63214
9	Medline	(6 AND 8)	364
10	Medline	9 not 7	249
11	Medline	exp OBSTETRICS/	20726
12	Medline	(3 AND 11)	467
13	EMBASE	*"PRENATAL CARE"/	10517
14	EMBASE	exp "GENERAL PRACTITIONER"/	80577
15	EMBASE	(13 AND 14)	115
16	EMBASE	*PREGNANCY/	134861
17	EMBASE	(14 AND 16)	283
18	EMBASE	exp "GENERAL PRACTICE"/	76033
19	EMBASE	(13 AND 18)	120

20	Medline	exp PREGNANCY/	810084
21	Medline	(pregn* OR maternity OR obstetric*).ti	227143
22	Medline	(20 OR 21)	841394
23	Medline	(3 OR 8)	179571
24	Medline	(22 AND 23)	4412
25	Medline	exp "PRENATAL DIAGNOSIS"/	66307
26	Medline	(23 AND 25)	237
27	Medline	(9 OR 24 OR 26)	4474
28	Medline	**"FAMILY PRACTICE"/	40528
29	Medline	**"PHYSICIANS, FAMILY"/	10520
30	Medline	(28 OR 29)	49675
31	Medline	(6 OR 22 OR 25)	852187
32	Medline	(30 AND 31)	1359
33	HMIC	(Gp*1 OR "general practitioner*).ti,ab	18180
34	HMIC	exp "GENERAL PRACTITIONERS"/	10011
35	HMIC	exp "GENERAL PRACTICE"/	8747
36	HMIC	(33 OR 34 OR 35)	25354
37	HMIC	exp "ANTENATAL CARE"/ OR exp "MATERNITY CARE"/	1386
38	HMIC	("antenatal care" OR "prenatal care" OR "pre natal care").ti,ab	495
39	HMIC	("maternity care").ti,ab	598

40	HMIC	exp PREGNANCY/ OR exp "PREGNANCY SCREENING"/	2457
41	HMIC	(37 OR 38 OR 39 OR 40)	4080
42	HMIC	(36 AND 41)	248
43	Medline	(low* ADJ2 risk).ti,ab	100637
44	Medline	(27 AND 43)	127
45	EMBASE	(low* ADJ2 risk).ti,ab	132348
46	EMBASE	(14 OR 18)	146056
47	EMBASE	(13 AND 45 AND 46)	16
48	EMBASE	(16 AND 45 AND 46)	10
49	EMBASE	*"MATERNAL CARE"/	5856
50	EMBASE	(46 AND 49)	180
51	CINAHL	(Gp*1 OR "general practitioner*").ti,ab	16579
52	CINAHL	exp "PHYSICIANS, FAMILY"/	9514
53	CINAHL	exp "FAMILY PRACTICE"/	12339
54	CINAHL	(52 OR 53)	20475
55	CINAHL	("antenatal care" OR "prenatal care" OR "pre natal care").ti,ab	4132
56	CINAHL	("maternity care").ti,ab	1959
57	CINAHL	exp "PRENATAL CARE"/	9213
58	CINAHL	exp "MATERNAL HEALTH SERVICES"/	16928
59	CINAHL	(55 OR 56 OR 57 OR 58)	19750
60	CINAHL	(54 AND 59)	188

61	Medline	exp "REFERRAL AND CONSULTATION"/	65007
62	Medline	(3 AND 6 AND 61)	25
63	Medline	exp "TIME FACTORS"/	1088083
64	Medline	(3 AND 6 AND 63)	13
65	EMBASE	exp "PATIENT REFERRAL"/	82372
66	EMBASE	(13 AND 14 AND 65)	6
67	EMBASE	exp "PRENATAL SCREENING"/ OR exp "PRENATAL CARE"/	131610
68	EMBASE	(14 AND 67)	486
69	EMBASE	(uncomplicated ADJ2 pregnanc*).ti,ab	4511
70	EMBASE	(14 AND 69)	4
71	EMBASE	(18 AND 69)	2
72	Medline	(uncomplicated ADJ2 pregnanc*).ti,ab	3432
73	Medline	(3 AND 72)	13