QUALITY IMPROVEMENT

Obstetrician-led shared care was not better than care from general practitioners and community midwives in low-risk pregnant women


Objective
To compare routine antenatal care from a general practitioner (GP) and a midwife with conventional shared care that includes an obstetrician for women initially at low risk for antenatal complications.

Design
Randomised controlled trial.

Setting
51 general practices in Scotland (224 GPs and 45 midwives).

Patients
1765 pregnant women (mean age 26 y, ≤ 18 weeks gestation) with no history of antenatal complications or caesarean section, serious medical conditions, or assessment by an obstetrician before enrollment. Follow-up was 95%.

Intervention
Detailed care plans for pregnancy complications were developed in conjunction with local obstetricians, GPs, and midwives. 834 women were allocated to care from a GP and midwife (GP-midwife group, and 840 women were allocated to shared obstetrician-led care.

Main outcome measures
Health care use, indicators of quality of care, and satisfaction with care.

Main results
For health care use, women in the GP-midwife group had fewer care givers (median of 5 vs 7 providers, \( P < 0.001 \)); fewer mean routine clinical visits (10.9 vs 11.7, \( P < 0.001 \)); more referrals (49% vs 36% with ≥ 1 referral, \( P < 0.001 \)); fewer admissions (27% vs 32% with ≥ 1 admission, \( P = 0.03 \)); fewer daycare episodes (12% vs 17%, \( P = 0.01 \)); and fewer missed appointments (7% vs 11%, \( P < 0.01 \)). Women in the GP-midwife group also had fewer failures to treat anemia (0% vs 0.7%, \( P = 0.04 \)) and more failures to check Rhesus-negative women for antibodies at 35 weeks’ gestation (2.5% vs 0.4%, \( P < 0.001 \)). Women in the GP-midwife group also had fewer identified complications (pregnancy-induced hypertension \( [4.4\% \text{ vs } 8.4\%, \ P = 0.002] \); transient hypertension \( [8.2\% \text{ vs } 11.1\%, \ P = 0.04] \); proteinuria \( [9.6\% \text{ vs } 13.9\%, \ P = 0.007] \); and preeclampsia \( [1\% \text{ vs } 4\%, \ P < 0.001] \)) and fewer inductions (18.1% vs 24.5%, \( P = 0.009 \)).

Conclusion
Women at low risk for antenatal complications received little or no benefit from obstetrician-led shared care when compared with routine care from a general practitioner and midwife.

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Commentary
The context for the trial by Tucker and colleagues was an earlier study of antenatal care in Scotland that showed that most women had health care visits early in their pregnancy; they made many visits regardless of their risk category (median 14 visits for term births); 64% remained at low risk throughout pregnancy; a high variability existed in the proportion of visits that involved consultant obstetricians (6% to 22%) or all hospital obstetric medical staff (23% to 35% involving consultants); and, almost universally, care was shared among different types of caregivers (1).

Women in the experimental group received care from GPs and midwives only, which meant that care was more likely to be available locally. Women saw fewer caregivers and made fewer antenatal visits. Thus, the intervention was more complex than the article title implies. The favorable results of the trial were reductions in pregnancy-induced hypertension, preeclampsia, and health services use (fewer missed visits); fewer inductions; and greater satisfaction with care. Patient satisfaction was measured appropriately at 6 weeks after delivery, when the women were better able to assess the whole birth process. Given these findings, the forthcoming reports of the economic evaluation will be a key factor in implementation (2, 3).

The results should be widely generalisable because of the many practices and practitioners involved, the urban-rural mix of hospitals that cover 38% of maternity care in Scotland, and the participation rate of eligible women (82%). The trial was, however, based on care plans and protocols agreed to by all providers, and implicit in the study is a functioning network of maternity care across professional boundaries. When these factors are absent or when care is not currently shared, the generalisability of the study may be limited.

The other limiting factor is whether care without obstetrician involvement is as safe as care with it. Surrogate measures in the study suggest that it is as safe. Other larger trials are necessary to confirm the safety. Some obstetricians may reserve judgement.

Sikorski and colleagues compared a “new schedule” of 5 or 7 antenatal visits with the “traditional” 13-visit schedule. No evidence was found that this new pattern of care was less safe, but the same caveat applies about generalisability and lack of substantive outcomes, as mentioned above.

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