

Labor and Delivery Teamwork Leads to Fewer Cesareans

Caroline Helwick | February 10, 2015

SAN DIEGO — When midwives and laborists work in conjunction with an obstetrician, there can be a substantial decrease in the rate of cesarean delivery, according to a study from one large community hospital.

"The change from a private practice to a hospitalist model was associated with dramatic decreases in nulliparous term singleton vertex cesarean delivery rates, and almost a doubling of the rates of vaginal birth after cesarean, said Melissa Rosenstein, MD, from the University of California, San Francisco School of Medicine.

Investigators changed the care model at Marin General Hospital in Greenbrae, California, so that privately insured women, who had been managed by their individual obstetricians, shifted to a 24-hour hospitalist model, which had previously been used to manage only publicly insured patients.

With the new 24-hour model of in-house labor and delivery care, the hospital's 1200 annual private and public obstetric patients are managed in the same system, midwifery care is offered to privately insured patients, and private practice obstetricians participate in a laborist call pool that cares for all patients.

For the women who were managed with the hospitalist model throughout the study, rates "did not change," Dr Rosenstein reported here at the Society for Maternal-Fetal Medicine 2015 Annual Pregnancy Meeting.

Rates of primary and repeat cesarean delivery are very high in the United States. Currently, nearly one-third of women undergo cesarean delivery; in 1995, the rate was 21%. Cesarean delivery is associated with a higher risk for maternal complications than vaginal delivery, longer hospital stays, and longer postpartum recovery.

Dr Rosenstein and her team compared outcomes using data from 4351 patients collected from 2005 to 2014. Of the 1772 nulliparous women giving birth to a singleton term baby, 1201 were privately insured and 571 were publicly insured.

Initially, most privately insured patients preferred to remain with their personal physician, "but over time, we have seen an uptake of midwifery care as the program has become more popular," Dr Rosenstein reported.

For privately insured patients, whose care changed after the hospitalist model was implemented, the rate of cesarean delivery in nulliparous women declined and the rate of vaginal birth after cesarean delivery increased.

Table 1. Delivery Outcomes

Insurance Cohort	Before Implementation, %	After Implementation, %	P Value
Cesarean delivery in nulliparous women			
Private	31.7	25.0	.005
Public	15.5	16.1	.78
Vaginal delivery after cesarean			
Private	13.3	22.4	.002
Public	33.8	26.8	.07

Table 2. Annual Trends in Delivery Rates

Insurance Cohort	Before Implementation, %	After Implementation, %
Cesarean delivery in nulliparous women		
Private	+0.6	-1.7
Public	+1.1	-1.4
Vaginal delivery after cesarean		
Private	-0.4	+8.0
Public	-2.1	-3.8

The fact that rate changes were only seen when practice shifted from the private practice model to the hospitalist model suggests causation rather than a trend, Dr Rosenstein said.

She explained that physicians who were part of the project said that "just having midwives on staff, and having a collaborative practice where both professional types were part of the discussion was, in itself, an important intervention."

Because delivery decisions are typically made antenatally in women who have undergone previous cesarean delivery, it is difficult to see how an increase in vaginal births can be related to having a laborist or midwife on duty, said Jon Barrett, MD, from the Sunnybrook Health Sciences Center in Toronto.

During a lively discussion after the presentation, Dr Barrett reported that his center has been operating under a collaborative model for quite some time.

"Private practice physicians have felt that the reason they were likely to recommend a trial of labor was knowing that they did not have to be in the hospital the whole time," he explained. "They could, therefore, recommend this for a patient for whom they were not 90% sure."

"It seems that one issue is having both a midwife and an obstetrician in the facility 24 hours a day," said Metin Gulmezoglu, MD, from the Department of Reproductive Health at the World Health Organization, who comoderated the plenary session. "This seems to give the obstetricians more confidence offering vaginal birth after cesarean delivery."

This analysis was "elegantly done," and the "before and after" context "gives us more confidence in the results," Dr Gulmezoglu said. "Maybe these doctors and midwives were more motivated to change."

Collaborative Problem Solving

Obstetricians have work-force concerns and are trying to balance labor and delivery responsibilities with an office practice, all while hospitals are calling for 24-hour in-house obstetric coverage to improve patient safety and reduce liability, Dr Rosenstein explained.

"A potential solution to the problem of a shrinking workforce and rising cesarean delivery rates could be midwives, whose attendance at births in the United States has been steadily increasing," she said. "Midwives are dedicated to physiologic births and less intervention, and this has been associated with excellent outcomes."

"A more recent configuration of the workforce involves the laborist — an obstetrician who provides in-house labor and delivery coverage without competing clinical duties," Dr Rosenstein explained. Laborists have a "patience and familiarity" with obstetric issues, which can reduce the likelihood of cesarean delivery for common problems.

These issues, she said, led a group of private practice obstetricians to think outside the box and create a more collaborative approach to labor and delivery.

Dr Rosenstein, Dr Barrett, and Dr Gulmezoglu have disclosed no relevant financial relationships.

Society for Maternal-Fetal Medicine (SMFM) 2015 Annual Pregnancy Meeting: Abstract 8. Presented February 5, 2015.

Medscape Medical News © 2015 WebMD, LLC

Send comments and news tips to news@medscape.net.

Cite this article: Labor and Delivery Teamwork Leads to Fewer Cesareans. *Medscape*. Feb 10, 2015.