

Home delivery failed; now she's in the ED. Would you care for this stranger?

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## Should women attempt home birth after C-section?

Is this a valid birth plan? Or an outrageous choice?

### **CASE** Failed home birth after CS twice

A 32-year-old woman, G3P2, two prior C-sections, is brought to the emergency department (ED) in labor after a failed home birth. The nursing administrator asks if you (on the labor and delivery unit caring for your patients) will assume her care.

You ascertain that the patient's two prior C-sections were performed for failure to progress. With this pregnancy, she desired to attempt home birth and searched the Web to find a midwife who was enthusiastic about participating in her birth plan.

At term, the patient went into labor at home, but the cervix remained at 6 cm dilation for 4 hours in the setting of regular, strong contractions. The midwife then told the patient's husband to take her to the ED.

You confirm dilation at 6 cm, -2 station, and fetal weight of approximately 8 lb. Variable decelerations with contractions are noted. Based on the physical exam, uterine contractions are adequate and occurring every 2 minutes.

Do you assume her care?

**D**uring the 19th century, most births still occurred at home—many in the presence of an experienced birth attendant. Boston's Lying-In Hospital, for example, was largely utilized at the time as a staging area, where physicians, nurses, and medical students resided until summoned to attend laboring women in their homes. A woman in labor sent a message to the hospital and a pair of clinicians—a physician and either a nurse or a medical student—would travel to

the home and perform the delivery, typically in the kitchen.

In the 20th century, the development of blood banking, anesthetic, and antiseptic techniques and advancing obstetric and surgical technology prompted a shift in births from home to hospital. The movement was remarkably successful: In that period, maternal mortality was reduced 98%; infant mortality, 97%.

### **A continuing controversy in developed countries**

About 0.6% of births in the United States are recorded as planned home births—a rate that has been stable over the past few years.<sup>1</sup> The rate is similar to what is seen in most developed countries—except The Netherlands (30%) and England (2%).<sup>2,3</sup> A curiosity of European medical practice is that home birth is favored in The Netherlands but not in neighboring Belgium or France.

Both the American College of Nurse Midwives and the American Public Health Association support the practice of out-of-hospital birth, both at home and in non-hospital birth centers. ACOG opposes home birth because complications for both the mother and newborn can arise with little or no warning, even in a low-risk pregnancy. ACOG has consistently supported birth in a hospital; in a birthing center within a hospital complex that meets the standards of the American Academy of Pediatrics and ACOG; or in a free-standing birthing center that meets standards of the Accreditation

### **FAST TRACK**

**The US rate of home birth has remained stable: about 0.6% of all births, similar to what's seen in most developed countries**

Association for Ambulatory Health Care, the Joint Commission, or the American Association of Birth Centers.

### Home birth advocates paint a rosy picture

Search for “home birth” on the Web and you’ll find millions of pages that extol the virtues of home birth and whose authors are, directly or indirectly, uncomplimentary to such in-hospital birth practices as oxytocin, induction, episiotomy, and operative delivery.

No large-scale, randomized clinical trials comparing planned home birth and planned hospital birth have been conducted.<sup>4</sup> Consequently, all available data are from observational studies.

Looking at some of those studies, it appears that home birth is associated with reasonably good results—but *only in carefully selected women whose risk of complications is low*. With the caution that many of these studies have significant design flaws, it’s notable that they report that maternal and neonatal death rates are generally comparable in planned home and planned hospital births.<sup>5</sup>

**From Washington State.** In one study here, home delivery was associated with an increase in neonatal mortality (adjusted relative risk [RR], 1.99; 95% confidence interval [CI], 1.06–3.73) and an increased risk of an Apgar score of <4 at 5 min (RR, 2.31; 95% CI, 1.29–4.16). Among nulliparous women, home birth was associated with an increased risk of postpartum hemorrhage (RR, 2.76; 95% CI, 1.74–4.36).<sup>6</sup>

**From Australia.** An increased risk of neonatal death after intended home birth has also been reported in an Australian study.<sup>7</sup> Investigators concluded that home birth attendants’ and pregnant women’s failure to recognize the obstetrical and neonatal risks of post-term pregnancy, twin pregnancy, and breech presentation contributed to the observed increase in neonatal mortality.

Other investigators in the midwifery literature have reported similar findings.<sup>8</sup>

### But to extend these findings to higher-risk women...

Generally positive outcomes for home birth in carefully selected, low-risk women have emboldened some advocates to push the envelope. They have begun to encourage and attempt home birth for women who are not low-risk, including ones who have had prior cesarean delivery.

There are few data on the risks of home birth after C-section. Based on studies of a trial of labor after C-section in birth centers, however, it is very likely that this practice will significantly increase maternal and newborn morbidity. In one study<sup>9</sup> of 1,913 women attempting vaginal birth after a cesarean delivery at a birth center,

- 0.4% of subjects ruptured their uterus
- 0.5% of pregnancies resulted in fetal or neonatal death.

Clearly, home birth after cesarean delivery is a *high-risk practice* that should be condemned. ACOG has done so: “Attempting a vaginal birth after cesarean at home is especially dangerous because if the uterus ruptures during labor, both the mother and baby face an emergency situation with potentially catastrophic consequences, including death.”

Yet advocates of home birth have not vocally opposed the practice of home birth after cesarean delivery.

### Failed home birth means transfer to the hospital

Approximately 10% to 15% of planned home births do not succeed. Failure—most often, because of lack of progress in labor—means that the mother is transferred to a local hospital for birth. After successful home birth,

- about 1% of mothers are transferred to the hospital because of maternal hemorrhage or retained placenta
- about 1% of newborns are transferred to the hospital because of respiratory difficulty.<sup>10</sup>

Women who planned a home birth but then require transfer to a hospital because

#### FAST TRACK

**It is very likely that attempting home birth after C-section will significantly increase morbidity for mothers and babies**

of failure are at increased risk of harm and death, as is the fetus or newborn.<sup>11</sup>

### A tough spot for the OB

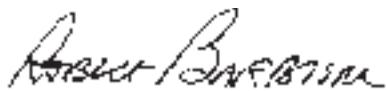
Transferring a woman to the hospital after failed home birth places the receiving OB in an awkward position. She (he) typically has had no role in antepartum or intrapartum management of the patient, but is expected to develop an emergent plan for resolving a high-risk pregnancy that best protects mother and fetus!

My impression is that OBs who are placed in this unfortunate situation at first **1)** wish that the mother had not chosen a home birth plan and **2)** feel moral outrage and anger about the decision she made to place herself and her offspring at increased risk of injury and death.

In most cases, these emotions evolve to reflective acceptance of the physician's responsibility to provide care to a woman in need, regardless of her past decisions. And most women who have failed home birth are accepting of the recommendations of their new physician.

### More home births to come?

My hope is that the rate of planned home births, now at about 0.6% of all births, will decrease—or, at least, not increase. But it's troubling to see that, in a number of states, legislation is being vigorously argued that would, first, expand the scope of practice of minimally trained midwives and, second, more explicitly embrace the practice of home birth from the perspective of regulatory agencies and health-care insurance companies.



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# INSTANT POLL

## Failed home birth, now in the ED

**You are at the hospital, caring for your patients in labor, when a 32-year-old G3P2 with two prior cesarean section deliveries is brought to the emergency department in labor after a failed home birth.**

**“Will you assume care for this woman?” the nursing administrator asks you. Quickly! What would you do?**

- Refuse to accept responsibility for a high-risk patient whom you've never seen
- Assume her care and recommend cesarean section
- Assume her care and recommend cesarean section—plus, later, report the responsible midwife to the department of public health and her credentialing organization
- Agree to assume her care as long as the hospital's attorney and risk management team indemnify you

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