Labor problems

By Barry Smith, M.D.


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The most common surgical procedure in the United States is not a knee replacement, appendectomy, or spinal fusion. It is a cesarean section—or "c-section"—which is now used to deliver one in three babies.

This was not always the case. In the late 1960s, only about 5% of babies were delivered by c-section. Just a decade ago, the rate was about 20%. The very low rate in the 1960s may have been too low, but, at over 30%, the current rate is certainly much too high. According to the World Health Organization, a rate between 10% and 15% would be appropriate.

Hospitals should recognize that a c-section is a major operation with potentially severe complications and added costs.

Although c-sections often cost far more than regular deliveries, the issue is not just one of expense. Mothers and infants are more likely to suffer complications from c-sections than from vaginal deliveries, and c-sections often require longer hospital stays.

There are many factors that help explain the rapid and dramatic increase in the c-section rate, such as the increase in deliveries among women at an older age, the obesity epidemic, more gestational diabetes, larger babies, and improved reproductive technologies. But a few factors are particularly important, and may be especially difficult to resolve.

Legal issues have had an enormous influence on the field of obstetrics. The failures to enact tort reform and to move to a no-fault insurance environment when proper protocols of care have been followed have been major factors in the increasing c-section rate. By the age of 45, about three-quarters of physicians working in obstetrics and gynecology will have been sued for malpractice. Many obstetricians have even been named in suits during their residencies.

The rate of elective inductions of labor in normal obstetric patients, especially those having their first child, has increased rapidly and also contributed to the rising c-section rate. Sometimes this is the result of trying to schedule the delivery at a time that is convenient for patients or providers. But when induction is begun before the cervix is ready, many patients will "fail" induction, which leads to the physician performing a c-section. Reviews of medical records of these "failed" inductions have found that in some cases patients may never have been in active labor, a result some have termed "clinical impatience." Once these patients have a c-section, it is unlikely that they will have vaginal births in the future. Fully one-third of the high c-section rate is the result of repeat c-sections.

It is well established that delivery after 39 weeks of gestation, in an otherwise normal pregnancy, is associated with a lower cesarean rate and better outcomes for the baby, even though 37 weeks is usually considered "term" pregnancy. There are far more admissions to neonatal intensive care for babies electively delivered at 37 or 38 weeks of gestation than for babies delivered after a full 39 weeks of pregnancy. National efforts are currently underway to educate patients, families, and obstetrical providers about the importance of avoiding elective inductions of labor and elective repeat cesarean delivery before 39 weeks, but progress has been painfully slow. As a result, some states are beginning to implement laws that specify that Medicaid will not pay for these deliveries or resulting admissions to neonatal intensive care units. (Medicaid pays for the care of about 42% of obstetric patients across the U.S.)

There are other issues that have probably contributed to the high c-section rate. The need for health-care providers to do more work in the same amount of time may have decreased their patience. Obstetricians who are trying to observe their laboring patients while also doing surgery or seeing patients in the office are faced with balancing their work quite differently than those working in a system where one individual is assigned to cover the labor ward for a period of time.

Last, but not least, is the effect of changes in how doctors are trained and mentored in their early post-residency years. Many of today's trainees and recent graduates have received little training in obstetric hand skills that were routinely taught in the past. Older practitioners, working during the era of much lower c-section rates, performed digital or manual rotations or flexion of the baby's head during labor, which resulted in the restoration of the normal mechanism of labor and thus allowed for a timely and safe vaginal birth. Most of these older practitioners were also competent and comfortable with the use of obstetrical forceps, a skill that is being rapidly lost. Delivery of twins presenting with both babies in the vertex position was also routine in the past. Unfortunately, these skills are disappearing. Add to these issues the fact that many hospitals will not even allow their obstetricians to attempt a vaginal birth in a low-risk

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The Grand Rounds essay offers insight or opinion from a member of the Dartmouth faculty. Barry Smith is the former chair of the Department of Obstetrics and Gynecology. He is a graduate of Dartmouth College ('59) and Geisel School of Medicine ('60) and joined the faculty in 1970.

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patient who has previously had a c-section, and the high c-section rate becomes understandable.

Solving this problem will not be easy. Efforts to enact tort reform have so far not been successful. It is my hope that patient and provider education regarding elective early inductions will be successful. Changes in how obstetric providers collaborate to cover the labor floor are beginning to catch on, as is the use of laborists, hospitalists specializing in obstetrics. Simulation training in lost hand skills could help if young providers also received encouragement and mentoring from more experienced obstetricians. Hospitals should recognize that a c-section is a major operation with potentially severe complications and added costs.

It is worth the effort to try to lower the c-section rate. Even a small percentage change in the primary c-section rate could lead to significant progress as it would help avoid the repeat procedures that currently account for one-third of these all-too-common surgeries.

Alumni: Lucey

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in Malaysia and Singapore and then found multiple times in Bangladesh and nearby parts of India. In the 1998 to 1999 outbreaks, the virus spread from bats to pigs to humans. But in the dozen or so subsequent outbreaks, the virus spread from bats to humans. Under the right conditions, humans can also transmit it to each other.

"It's us against the virus," O'Donnell says of Lucey's mission. And even after three decades of chasing, Lucey is far from ready to slow down.

"I like to travel and go to places and talk to doctors, whether it's [about] anthrax, or bird flu, or pandemic flu, or dengue," Lucey says. "It's taking care of patients, and that's something that's universal."