OBG MANAGEMENT

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Although elective primary cesarean section is on the rise, the data—and experts—are mixed on its advisability.

IN THIS ARTICLE

"Doctor, I want a C-section." How should you respond?

Is she motivated by a fear of childbirth or a true wish for C-section? Here's how to identify candidates.

In general, when a patient inquires about elective primary C-section, it is best to consider the "6 **C**'s of elective cesarean" in a careful discussion with her. That approach entails consideration of the following:

- **C**larification of her request
- **C**omorbidities in maternal health or surgical history
- number of **C**hildren planned overall
- clear **C**onsent for the procedure
- **C**orrect determination of gestational age at the time of planned delivery
- **C**onfirmation of coverage by her insurance carrier.

One trend is clear: Maternal requests for primary cesarean delivery are on the rise in the United States, although we lack precise data on exactly how fast the rate is rising. Many experts estimate it to be 4% to 18%.[1] In Brazil, the rate of elective C-section for women in private hospitals is thought to be as high as 80% to 90%.[2]

As more celebrities and other prominent figures undergo elective C-section, more American women are beginning to ask for the same "privilege." In this article, I lay out an evidence-based and

How fast is maternal-request cesarean increasing?

In 2004, the United States saw 4.1 million births, 18% of which—or nearly 750,000—involved primary C-section.[13] However, it is difficult to discern how many of these primary C-sections were performed for nonobstetric, or elective, indications, because such data are not routinely collected.

Birth certificates are changing

Efforts to improve birth certificate data have begun. In 2003, the revised US Standard Certificate of Live Birth was adopted by seven states, allowing for a more detailed description of births. The new certificate provides for more robust information in several areas, including

- risk factors in the index pregnancy
- obstetric procedures performed
- characteristics of labor and delivery
- method of delivery
- normal conditions of the newborn
- congenital anomalies in the newborn.

It also specifies whether or not a trial of labor was attempted before cesarean delivery, but it is limited by the inclusion of breech presentation in the statistics.[14]

Data collection remains an inexact science

Even with the new birth certificate data, it remains difficult to accurately quantify the number of nonobstetrically indicated primary C-sections, although many experts have estimated the rate at 4% to 28%.[1]

ethically sensitive approach to counseling patients who request C-section on an elective basis.

The points raised in the list that begins this article are all discussed here.

The difficulty of calculating the rate of primary C-section

We are limited by terminology and data-collection practices, as well as a multitude of confounding obstetric factors. Practicing providers recognize the inherent difference between a planned C-section at term without the onset of labor and an unplanned C-section at term after the onset of labor—as well as every scenario in between.

Unplanned C-section can be performed to address fetal compromise or an unsuccessful attempt at vaginal delivery—each scenario replete with its own risks and potential complications. The urgency of C-section also confounds subsequent maternal and fetal complications. Underlying maternal factors such as obesity and medical and surgical history further complicate the scenario.

For these reasons, the discussion of elective C-section is best managed by limiting the parameters considered to the requested, scheduled, elective C-section at term without maternal or fetal indications. Most patients have this paradigm in mind when they make their request, even though physicians and midwives understand that this is the ideal and not generally the reality.

Medicolegal and ethical considerations

The ethical principles surrounding cesarean delivery upon maternal request balance on the tension between beneficence and patient autonomy. The former requires the promotion of the patient's overall health and well-being, along with attention to the closely related dictum, *primum non nocere*, or "first do no harm."

Patient autonomy requires respectful consideration of the patient and her

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In the United States in 2004, 18% of births, or nearly 750,000, involved primary C-section

world view when making a medical decision. The ethical principle of patient autonomy is usually understood as a right to decline medical intervention—not necessarily to demand dangerous or unproven intervention.[1]

This raises the question: Is a scheduled C-section in the absence of obstetric indications dangerous? Harmful? Imprudent? The medical community has accepted these inherent tensions in the field of aesthetic plastic surgery, but societies in obstetrics and gynecology continue to struggle with the ethical principles involved in maternal-choice cesarean.

FIGO: C-section for nonmedical reasons is not justified

The International Federation of Gynecology and Obstetrics (FIGO) Committee for the Ethical Aspects of Human Reproduction and Women's Health bases its guidelines on the use of cesarean delivery for nonmedical reasons on the principles of beneficence and social justice. It concludes: "Cesarean section is a surgical intervention with potential hazards for both mother and child. It also uses more health-care resources than normal vaginal delivery…performing cesarean section for nonmedical reasons is ethically not justified."[3]

ACOG: Individualize the decision consistent with ethical principles

The American College of Obstetricians and Gynecologists (ACOG), in a recent Committee Opinion, acknowledged the paucity of research data directly comparing cesarean delivery on maternal request with planned vaginal delivery. The document reviews the National Institutes of Health (NIH) State-of-the-Science Conference on Cesarean Delivery on Maternal Request (see below), which was convened in 2006, and notes the panel's conclusion that the available body of evidence does not allow for a conclusive recommendation of one mode of delivery over another.[4]

The ACOG Committee Opinion states: "Any decision to perform a cesarean delivery on maternal request should be carefully individualized and consistent with ethical principles."[5]

Different world views likely account for different conclusions

The difference in the FIGO and ACOG positions may arise from differences in cultural contexts between a general world health view and a highly patient-centered Western perspective. The former view bases the decision on universal good and the utilization of scarce health-care resources; the latter view recognizes the individual within an ethical context.

Both views acknowledge the limited data available to inform the decision. So what do the data say, and how can we help our patients understand it?

NIH State-of-the-Science Conference

In March of 2006, an independent panel of experts from a range of medical fields reviewed the scientific literature regarding cesarean delivery on maternal request at the NIH in Bethesda, Maryland. Although the panel found no Level I, or strong, evidence within the literature, it was able to characterize the risks and benefits of maternal-request C-section based on Level II (moderate), Level III (weak), and Level IV (absent) evidence.

Moderate evidence was scarce

From a maternal perspective, the panel found that "the frequency of postpartum hemorrhage associated with planned cesarean delivery is lower than that reported with the combination of planned vaginal delivery and unplanned cesarean delivery,"[5] although hospital stay is longer than with vaginal delivery.

From a neonatal perspective, moderate evidence favors vaginal delivery because of a decreased incidence of respiratory morbidity, such as transient

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NIH panel: With planned C-section, the frequency of postpartum hemorrhage is lower than with combined planned vaginal delivery and unplanned C-section

TABLE

Risks and benefits of planned cesarean delivery

BENEFIT	RISK	UNCLEAR EFFECTS
The mother		
Protection against urinary incontinence Decreased surgical complications Decreased risk of postpartum hemorrhage Cultural factors Availability of social support Economic advantage	Increased length of stay Infection Anesthetic risk Subsequent placentation Difficulty breastfeeding Complication from future cesarean section Comorbidities related to obesity	Anorectal function Sexual function Pelvic organ prolapse Maternal mortality Postpartum pain Postpartum depression Thromboembolism
The child		
Reduced mortality Decreased risk of intracranial hemorrhage Decreased risk of neonatal asphyxia Decreased risk of neonatal encephalopathy Decreased risk of brachial plexus injury	Iatrogenic prematurity Increased hospitalization Increased risk of respiratory complication	Breastfeeding Fetal laceration

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There is a risk of iatrogenic prematurity with scheduled C-section

tachypnea of the newborn and respiratory distress syndrome. Respiratory morbidity is directly related to gestational age, and there is a risk of iatrogenic prematurity with scheduled C-section. The possibility of incorrect obstetric dating would seem to favor awaiting the spontaneous onset of labor at term and an attempt at vaginal delivery to reduce the risk of respiratory complications due to iatrogenic prematurity.

Weak evidence goes both ways

Weakly supported evidence favored both cesarean section and vaginal delivery for either the mother or fetus. Weak evidence favoring vaginal delivery for maternal interests included:

- decreased maternal infectious morbidity and anesthetic complications, compared with C-section
- greater ease establishing breastfeeding, due to logistical challenges surrounding mother–infant bonding after C-section
- greater freedom in planning family size because increasing numbers of repeat C-sections with subsequent pregnancies increase risk of uterine rupture, cesarean hysterectomy, and abnormal placentation.

Weak evidence supporting elective cesarean for maternal interests included:

- lower rate of postpartum stress urinary incontinence, compared with women undergoing vaginal delivery, in the short term
- lower risk of surgical morbidity and traumatic obstetric lacerations with elective C-section, compared with the injuries that can occur at the time of unscheduled C-section or vaginal delivery.

However, the committee was unable to document definitive evidence that favored one mode of delivery over the other in regard to long-term outcomes such as subsequent anorectal function, postpartum pain, postpartum depression, sexual function, pelvic pain, fistula formation, or

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venous thromboembolic disorder (**TABLE**, page 62).

Weak evidence of neonatal benefit

From the neonatal perspective, the NIH Consensus Committee found weak evidence favoring C-section. A scheduled C-section protects the neonate from stillbirth arising from postdates intrauterine fetal demise, because, with elective cesarean, a pregnancy is not usually allowed to continue post-term.

The Committee also documented protection from intracranial hemorrhage, neonatal asphyxia, encephalopathy, birth injury, and neonatal infection with C-section, compared with vaginal delivery.[5]

The socioeconomic picture matters

From a socioeconomic standpoint, women who request C-section may have financial concerns such as the amount of time off from work that may be necessary for both themselves and their partners. The availability of family support may be relevant and improved if a specific time frame for delivery is anticipated.

In many cultures, "lucky days" exist, and women may have preferences or aspirations for their child to be born on one of them.

Last, although it may be more cost-effective for a patient to undergo vaginal delivery, we, as health-care providers, cannot predict who will be successful in that regard. A complicated labor that necessitates unscheduled, urgent, or emergent C-section costs more in health-care dollars than does a C-section without labor.

Canadian researchers in 2005 examined the hospital care costs over 18 years in 27,614 pregnancies associated with varying types of delivery and found that the cost of delivery was highest for a C-section performed after the onset of labor ($2,137). The lowest cost was for spontaneous vaginal delivery ($1,340), followed by C-section without labor ($1,532).[6] Therefore, some could argue that the overall cost to the patient and system is lower with a scheduled cesarean delivery because it avoids the other possible comorbidities and utilization of resources.

When a patient raises the subject

Your first responsibility is to clarify her request. Key to this discussion is the patient's reason for requesting a scheduled C-section. Many women—especially primiparous women—have a fear of labor itself, not to mention concerns about their safety and the safety of their baby.[7] Another major concern to many women is the risk of injury to their perineum and pelvic floor.[1] These fears and concerns may motivate their request.

Educating patients about labor and discussing options for pain relief during labor can help soothe the patients' fears. Clarifying long-term risks and benefits in regard to pelvic floor dysfunction also is important. Patients may have an unrealistic understanding of C-section and its potential complications. Often, education about the birth process and mode of delivery can alleviate a patient's fears and change her hopes for delivery.

Explore any comorbidities

Because C-section is a major abdominal surgical procedure, maternal factors such as weight, age, surgical history, and medical comorbidities are relevant considerations when discussing the risks and benefits of cesarean in the absence of obstetric indications. Even in the absence of such comorbidities, certain risks of surgery should be clarified, including the risk of hemorrhage, infection, wound complication, thromboembolism, need for future surgery, and postoperative recovery.

The risks and benefits of vaginal delivery also should be discussed, including

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C-section protected against intracranial hemorrhage, neonatal asphyxia, encephalopathy, birth injury, and neonatal infection

When is C-section justified? An algorithm for decision making

The decision to perform cesarean delivery is one of the most common clinical ethical challenges in obstetric practice today—"a challenge that will only increase with the growing influence of managed care," observe Frank A. Chervenak, MD, and Laurence B. McCullough, PhD, who have written widely about ethical challenges in obstetrics and gynecology.[10]

In 1996, they proposed a model to help guide practitioners through the decision-making process of choosing cesarean delivery. According to that model, C-section is justified in four situations:

- when C-section is the only reasonable option based on clinical judgment, such as in a patient with a previous classical uterine incision. In this case, the clinician does not offer vaginal delivery but recommends only C-section based on beneficence
- when either C-section or vaginal delivery may be appropriate. This scenario warrants a clear discussion with the patient about the risks, benefits, and inherent controversy between delivery modes when all choices are equal in one's best clinical judgment. An example might be the vertex/breech presentation of twins
- when vaginal delivery is preferable but C-section would also be indicated, such as in attempted vaginal birth after C-section
- when cesarean delivery is not generally supported over vaginal delivery, but the patient requests C-section and that request is based solely on autonomous principles. This is the case of cesarean delivery by maternal request, which necessitates clear counseling and education of the patient. Fear of pain is not a justifiable reason for cesarean delivery, because we can offer options for adequate pain management in labor.

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Women who opt for elective cesarean for their first delivery may be committing themselves to C-section with subsequent deliveries

the factors that may lead up to an unscheduled cesarean delivery despite the desire for a vaginal delivery.

How many children are planned?

Given the reluctance of health-care providers to manage attempted vaginal birth after C-section, women who opt for elective C-section for their first delivery may be committing themselves to C-section with subsequent pregnancies, too.[8] Data suggest that an increasing number of C-sections place women at increasing risk of placenta accreta or previa, hysterectomy, blood transfusion, cystotomy, endometritis, prolonged operative time, and longer hospital stays. That said, overall maternal mortality from C-section remains low.[9]

Therefore, if a patient plans to have more than one or two children, she needs to understand the ramifications of repeat C-section at the time of her next delivery as well as in any additional pregnancies. Although a successful vaginal delivery cannot be guaranteed for any parturient, an attempt at vaginal delivery might be preferable for a woman hoping for a larger family.

Ensure clear consent

Chervenak and McCullough have provided an algorithm for offering C-section that balances the ethical concepts of autonomy and beneficence; that model is described above.[10]

If the patient requests C-section, but the clinician is uncomfortable performing one under the circumstances, referral is reasonable.

A patient's thoughtful request can be considered out of respect for autonomy and supported by thorough counseling.

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Ensuring a correct gestational age

Once the decision to proceed with scheduled C-section is made, accurate determination of gestational age is crucial to avoid iatrogenic prematurity.

ACOG Educational Bulletin No. 230 (November 1996) lists a number of criteria by which to infer gestational age and, therefore, fetal lung maturity. The criteria include:

- documented fetal heart tone for 30 weeks by Doppler ultrasound
- 36 weeks having passed since reliable documentation of a positive urine or serum human chorionic gonadotropin pregnancy test
- crown–rump measurement by ultrasonography (US) at 6 to 11 weeks of gestation that supports the current gestational age of 39 weeks or more
- US measurement at 12 to 20 weeks' gestation that supports the clinically determined estimated gestational age above 39 weeks.

Insurance concerns are vital to the decision

The Newborns' and Mothers' Health Protection Act (NMHPA) was passed in 1996. The law delineates a minimum requirement of coverage by insurers for hospital stays of 48 hours after vaginal delivery or 96 hours after C-section, thereby preventing health insurance plans from restricting hospital stays after delivery.[11] The law was passed as a response to political concerns about "drive-thru deliveries."

The NMHPA also allows for provider discretion regarding the length of stay required after childbirth, meaning that, if an attending-level provider deems discharge feasible in less than 48 or 96 hours, the insurer is not mandated to continue coverage beyond discharge.

The law, however, does not mandate coverage by health insurance plans for prenatal care, delivery, and postpartum care. Confounding the actions of health insurance companies are state laws governing the care of newborns and mothers, as these laws superceded the NMHPA. So, although most states have mandated benefit laws regarding a variety of services, as of 2002, only 18 states had laws mandating specific maternity services.[12] Some states specifically mention elective C-sections as nonmandated services, meaning that a patient who elects a scheduled C-section at term without obstetric indications may be required to pay for her obstetric care. ■

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In some states, a patient who elects a scheduled C-section at term without obstetric indications may be required to pay for her obstetric care

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