



Eight tools for improving obstetric patient safety and unit performance

➔ Building a comprehensive obstetric patient safety program for your unit

Henry M. Lerner, MD

Obstetricians, obstetric nurses, nurse managers, and obstetric department heads are almost always well-trained, hard working, highly motivated individuals dedicated to providing the best possible care for their patients. Nevertheless, errors in the provision of care are all too common.¹⁻³ Even though these errors are confined to a small percentage of patient interactions, they engender profound consequences: injuries to mothers or their babies, higher costs to treat associated complications, and medical-legal suits that can entangle both clinicians and plaintiffs for years.

Why do such errors occur when it is the goal of well-trained and dedicated practitioners to provide error-free care? There are several reasons:

- The provision of medical care in the early 21st Century is an enormously complex endeavor.
- Physicians and nurses are human beings and, therefore, do not—and never will—

perform perfectly all the time, in every situation, with every patient.

- The systems within which care providers work and the tools with which they work are often suboptimal and inefficient and are not designed to maximize patient safety.
- Financial constraints on hospital systems and physician practices dictate that obstetricians and obstetric nurses care for as many patients as possible in limited periods of time.

How then can obstetrics professionals seek to eradicate or at least decrease the number of medical errors that occur during the provision of maternity care?

To accomplish this, we must address the core issues at the root of these medical errors. Solutions must be implemented to **1)** simplify the often unnecessary complexity of delivering medical care and **2)** create systems and tools that minimize errors and catch those that do occur before they can cause harm.

Yet, how is this to be accomplished? In this article, I describe eight tools developed over time by clinicians who have worked in the field of obstetric patient safety. These tools provide some answers and concrete starting points.

Tool 1: Continuing education

William Osler once said, “It is astonishing with how little reading a doctor can practice medicine, but it is not astonishing how badly he may do it.”

IN THIS ARTICLE

Simulation programs
page 42

Best practice protocols
page 43

Give us your feedback!
page 44

»» SHARE YOUR EXPERIENCE!

Did implementation of a tool described in this article solve a problem or improve performance for your obstetric unit?

EMAIL:
obg@frontinemedcom.com



Dr. Lerner is Assistant Clinical Professor of Obstetrics & Gynecology at Harvard Medical School in Boston, Massachusetts. He has been in private practice of obstetrics and gynecology for 35 years, has served on the board of a major medical

malpractice carrier for 14 years, and has helped defend more than 300 obstetricians in medical malpractice cases across the country.

Dr. Lerner reports that he is a consultant to The Sullivan Group, a patient safety education provider.

CONTINUED ON PAGE 42



As the years out of residency and nursing school accumulate, clinicians—both obstetricians and obstetric nurses—find it all too easy to continue to practice pretty much the way they did during training. However, medical science changes, new protocols improve on the old, and new techniques and medications are introduced yearly into the practice arena. If a clinician is to deliver the best possible care, he or she has to keep abreast of these developments in obstetrics and refresh his or her memory from time to time about things learned long ago. Such acquisition of new and review of old obstetric knowledge can be achieved only through ongoing study.

There are many ways continuing education can be accomplished. You can read new editions of textbooks when they are published or follow an obstetric journal through its yearly cycle. Cutting-edge, clinically oriented, interactive courses in all major areas of obstetrics are available to clinicians online. The recertification criteria of the American College of Obstetricians and Gynecologists (ACOG), state licensing requirements, and individual obstetric department recertification requirements often mandate such continuing education.

Tool 2: Simulation programs

Most obstetric emergencies, especially the most dangerous ones, occur infrequently, making it difficult for the many members of any labor and delivery unit to have their skills sharply honed to best deal with them. This is less of a problem at busy institutions where, simply due to the numbers of patients cared for, such emergencies are encountered on a regular basis. But at smaller facilities they are, fortunately, rare. The only way a unit can maintain its competency to handle such situations when they do arise—and they will—is to practice them in simulation mode.

There is now an increasing amount of literature demonstrating that simulation programs are effective not only at improving the knowledge base of obstetrics providers but also at improving Apgar scores, reducing admissions to neonatal intensive care units

(NICUs), and preventing brachial plexus injuries.⁴

An effective simulation program should contain the following features:

- a thorough, didactic review of the clinical aspects of emergency care for all of the major obstetric emergencies (postpartum hemorrhage, shoulder dystocia, eclamptic seizure, maternal collapse, and urgent cesarean section)
- practice drills for the above
- training in teamwork and communication skills
- frequent repetition, ideally with each major obstetric emergency being covered twice per year.

Many institutions have developed simulation training centers. While these can be excellent teaching facilities, something is lost if simulation training is not done on the actual unit where obstetricians and obstetric nurses will encounter emergencies. Simulation programs also should be time-efficient and should be scheduled to make it easy for obstetrics personnel to participate. For greater convenience and knowledge retention, it is better to have short simulation programs at frequent intervals than day-long programs once per year or every other year.

Tool 3: Internal audits

It is a mantra in business that you can't fix what you can't measure. And while obstetric units usually keep track of such things as rates of cesarean section, elective induction at less than 39 weeks, and admission to the NICU, it is rare that data are kept on other extremely important information. For instance, how often is an induction started with no indication for it written in the admission note? How often is the vacuum or forceps applied with no note documenting the reason or the discussion of risks and benefits with the patient? How often does estimated fetal weight go unnoted in the medical record of a mother with gestational diabetes?

An audit program, either in computer format or with manual collection on paper, is a vital tool for each labor and delivery unit to



Short, frequent simulation programs, scheduled for the actual unit where obstetricians will encounter emergencies, can be beneficial

use in assessing the quality of the care it provides. Such an audit, by covering a sufficiently large number of clinical data points, can give tremendous insight into the specifics of the unit's performance over the range of obstetric care situations. It will show where things are being done well and where they are not. The audit becomes even more valuable if it is designed so that each of the measured data points can be evaluated for individual clinician performance as well as for the labor and delivery unit as a whole.

Similar audits also should be conducted in individual physician offices and obstetric clinics. Many of the errors that occur in providing obstetric care occur prenatally: tests not performed, lack of follow-up of known problems, or poor communication with patients or with the labor and delivery unit.

One of the major benefits of audit programs that are conducted on a regular basis—every 6 months or annually are common intervals—is that trends in performance in each area of care can be evaluated. As deficiencies are pointed out to providers, their compliance with best care practices should improve from cycle to cycle.

Tool 4: Best practice protocols

Medicine is now well past the point where protocols are seen as “restrictive” or “advocating cookbook medicine.” Well-designed protocols summarize best practices derived from evidence-based studies and the consensus of obstetric experts. They serve as convenient reminders to physicians in various clinical situations so that these clinicians do not have to rely solely on what they happen to remember about caring for a given condition. Protocols also provide a certain uniformity of care, which in itself decreases the likelihood of errors being made.

Each obstetric department should have a set of protocols to cover the most common obstetric situations, such as:

- premature rupture of membranes
- instrumental vaginal deliveries
- oxytocin administration.

Each unit does not have to devise its own

protocols; ACOG and nearby academic institutions are excellent sources for protocols that can be replicated and implemented so that they do not have to be created de novo.

Tool 5: Safety checklists

Just as well-designed protocols can serve as convenient reminders of best practices, low-tech physical checklists can be kept at nursing stations and in labor and delivery rooms to serve as reminders of best practices during obstetric emergencies. For instance, having a laminated set of easy-to-read protocols for postpartum hemorrhage, eclamptic seizure, maternal collapse, and shoulder dystocia in a delivery room can allow a charge nurse or other supervisor to check to make sure all proper procedures are being performed by the team actually administering care to a patient in crisis, with nothing important overlooked.

Tool 6: Complete documentation

Almost as many lawsuits are lost because of poor documentation as are lost because of inappropriate medical care. The obstetric literature,¹ and my own experience with the medical-legal system, clearly demonstrate the need for appropriate, careful documentation of the events that transpire during patient care. Notes do not have to be especially long or verbose—but they must contain all relevant information and describe the obstetrician's thinking at various decision points.

Documentation can be inadequate because of time constraints, poor understanding of the events that transpired, or simply a lack of remembering to include salient points that should be covered in a clinical note.

Clinicians can be prompted to include key aspects of care in the medical record by using prepared templates. Such templates are easy to fill out, remind clinicians to document information that would otherwise not get recorded, and result in a much more complete patient chart. By using a template,



Prepared templates can prompt complete documentation of patient care events, including the obstetrician's thought process during a decision point



Does your obstetric unit employ the following tools to drive performance and reduce medical errors?

- Continuing education
- Simulation training
- Audits
- Best-practice protocols
- Safety checklists
- Complete documentation, including prepared templates
- Smart medical records
- Outside review of maternity unit characteristics and performance

Tell us which of the above components your unit currently employs. Did implementation solve a problem or improve performance? Do you plan on recommending a new tool, described in this article, for your unit?

Email us at obg@frontlinemedcom.com



An outside obstetrics expert consultant can provide an important perspective regarding common problems faced and solved by other units

a clinician would never forget to record the head-to-body delivery interval after a shoulder dystocia or whether a fetal heart rate was obtained in the operating room just prior to starting a cesarean section.

Tool 7: Smart medical records

In obstetrics we are fortunate that there is a limited range of issues that recur repeatedly, such as gestational hypertension, placental abruption, and fetal distress. One soon gains experience in managing these conditions and, with the help of best-practice protocols, optimal care almost always can be provided.

Still, many clinical presentations can pose diagnostic challenges, especially in atypical cases. Moreover, clinicians managing a patient's care may not immediately remember the best means of evaluating and treating a certain condition in specific circumstances. For example, at 3:00 AM it may be difficult to recall whether it is nifedipine or labetalol that should be avoided with asthmatic patients or which antibiotic formulation is currently recommended for prophylaxis in a patient with premature rupture of membranes at 30 weeks' gestation who is allergic to penicillin.

Smart medical records, already widely used in other fields of medicine, are an

antidote to this problem. When certain diagnoses, physical findings, clinical details, or laboratory data are entered into specific fields in an electronic medical record, templates that have been added to the record automatically appear to show relevant information, such as tests that should be performed, treatments that should be administered, and alternative diagnoses that should be considered. Such reminders are not presented as obligations or "hard stops"; they are usually displayed in the form of easily dismissible pop-ups or "reminder bubbles" that appear on the screen and serve solely to jog memory and provide information.

Such smart electronic medical record features can be provided either by the main electronic medical record vendor or added as subprograms by other providers.

Tool 8: Maternity unit on-site consultations

Every labor and delivery unit has its own culture, a combination of institutional history and the personality of the doctors and nurses working there. Some units function efficiently, have the most modern equipment, and provide superb medical care. Other units have less than adequate facilities, remain entrenched in older practices, and have disruptive or uncooperative personnel that interfere with the smooth running of the unit. Moreover, each maternity unit, based on its resources, patient population, and staff skills, devises its own solutions to the same sorts of problems that all other obstetric units share. Unfortunately, there is little collaboration between units to discuss common problems and trade best practices. The result is that all too often each unit invents its own "wheel" when many excellent "wheels" already have been developed for the same issues around the country.

An on-site visit by an outside consultant—an obstetrician, an obstetric nurse, or both—can identify ongoing institutional problems, point out care deficiencies the unit may not be aware of, and provide resources and ideas to help solve the issues identified.

Moreover, an outside consultant can offer unbiased and authoritative opinions to help move initiatives that may be stalled by local personalities or institutional politics.

Some features that a well-conducted on-site consultation will evaluate are:

- adequacy of obstetric triage
- capacity to perform stat cesarean sections 24/7
- 24-hour availability of obstetricians, anesthesiologists, pediatricians, and operating room teams
- preparation for handling various obstetric emergencies
- oxytocin administration protocols and compliance
- adequacy of physician and nurse charting
- ongoing skills assessment of fetal heart-rate monitor interpretation
- presence of practitioners whose disruptive behavior compromises the safety of the unit
- preparation for nonmedical emergencies, such as infant abduction, natural disaster; fire; shooter; or disruptive patients, visitors, or staff.

Implementation can equal safer care

As long as people have babies, less than desirable outcomes will occasionally occur.

As long as care providers are human beings, the provision of obstetric care will continue to be imperfect.

It is up to those entrusted with the responsibility of caring for mothers and their babies to provide as much support and backup as possible to obstetricians and obstetric nurses, all of whom sincerely desire to do everything possible to deliver safe care to their patients.

Tools for providing such support and backup are available and can be implemented fairly easily on most obstetric units. They do involve an expenditure of both time and money. However, the most important requirement for success is an institutional willingness to **1)** acknowledge that the care a given unit provides can be improved, **2)** perform an in-depth evaluation of the quality of care currently being administered, and **3)** move ahead with the sorts of tools discussed in this article that will enable clinicians to provide optimal care for mothers and babies. 📌

References

1. Clark SL, Belfort MA, Dildy GA, Meyers JA. Reducing obstetric litigation through alterations in practice patterns. *Obstet Gynecol.* 2008;112(6):1279-1283.
2. Gluck PA. Medical error theory. *Obstet Gynecol Clin North Am.* 2008;35(1):11-17, vii.
3. Anakiraman V, Ecker J. Quality in obstetric care: measuring what matters. *Obstet Gynecol.* 2010;116(3):728-732.
4. Draycott T, Sibanda T, Owen L, et al. Does training in obstetric emergencies improve neonatal outcome? *BJOG.* 2006;113(2):177-182.

COMING SOON

OBG
MANAGEMENT

» Update on minimally invasive surgery
Amy Garcia, MD

» Anatomy for the laparoscopic surgeon
Stuart Hart, MD

» Update on cervical disease
Mark Einstein, MD

» Using the Internet in your practice:
Part 2—“Big three”: Facebook, Twitter,
and YouTube
Neal Baum, MD, and Ron Romano

» 2-part series: Office management
of benign vulvar conditions
Libby Edwards, MD

» Investigating optimal oxytocin infusion
post-cesarean delivery to prevent
uterine atony and excessive bleeding
Robert L. Barbieri, MD

» Contraceptive coverage
under Obamacare
Lucia DiVenere, MA