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First Do No Harm: How an OB Emergency Department Can Help Reduce Perinatal Adverse Events

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Abstract

What is the message?

Obstetrics is a highly-charged environment. Under the traditional “call model” of hospital obstetrics, siloed care can create an atmosphere ripe for error. Hospitals can reduce adverse events by identifying the factors that lead to gaps in care and implementing better solutions. An examination of claim frequency data suggests an OB hospitalist program centered on early team-based involvement and assessment of the patient is associated with reducing harm from occurring during labor and delivery.

What is the evidence?

Data from Clarity PSO reveals that the second highest rate of harm events (among event types) are perinatal events, with 66 percent involving harm, compared to 24 percent of “no harm.” An analysis by Ascension Health of key risk mitigation strategies identified the use of OB hospitalists at their hospitals as a valuable best practice initiative in driving down the loss, with a 31 percent reduction in serious harm incidents before and after program implementation.

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“Adverse event” is an oddly innocuous and impersonal word when used in context of healthcare delivery.

Technically, “adverse event” describes a clinical incident where unexpected injury/harm is caused by medical management or a complication rather than the underlying disease. But the term “adverse event” removes the incident from its genesis – the root cause of harm – and harm is personal and rarely innocuous.

For the patient, an adverse event can impact safety, health, and well-being, often leaving in its wake anger, sadness, pain, and grief. To a clinician, an adverse event means something, be it major or minor, went wrong with his/her patient care; the thought of possibly playing a role in that error can lead to self-blame, doubt in professional abilities, depression, and burnout. And even a community also bears some of the impact of an adverse even, albeit in a less personal way. Healthcare may be a business, but it also is a service delivered by individuals and respected community institutions. When an adverse event occurs, there is risk that the community will lose trust in a clinician or a beloved institution.

Adverse events also have wide-ranging ramifications and a long shelf-life. For hospital administrators, risk managers, or c-suite executives, an adverse event can make it challenging or impossible to achieve organizational goals, and more likely lead to impacts ranging from reputation damage to exposure and litigation.

Now, add to that powder keg the unique dynamics of a hospital obstetrical unit.

There is the hope and possibility, but not the guarantee, of a happy, healthy outcome for mother and child. This is not only the outcome that is desired by the family, but also an outcome that is assumed by modern society. So when an adverse event occurs, the ripples and repercussions are even more pronounced.

Given these dynamics, there is enhanced potential for processes to break down and rapid response times to lengthen. By its very nature, the unexpected can occur in this setting, and an

uneventful delivery can quickly become a life-threatening emergency. In comparison to other medical professions, obstetrics is also anomalous in that not just one life is at stake, but two.

In a perfect world, adverse events would not occur in obstetrics. But healthcare is imperfect; despite best practices, we don't have the ability to preempt emergencies, the tools to change or reverse the inevitability of disease progression, or the answer to every medical mystery. On top of that, healthcare – like a baby – is delivered by humans. And humans make mistakes.

What if we focused on transforming the Labor & Delivery structure so that mistakes *rarely* occur?

While adverse events may never be totally eliminated, we can pursue that goal by not just tracking, but by better understanding the data related to adverse events, addressing the factors that lead to gaps in care, and filling those gaps with better systems and solutions. In short: in addition to lowering harm events themselves through obstetrical best practices, we must avoid *potential* for harm by changing the ecosystem itself.

Healthcare delivery systems can start that process by closely examining Patient Safety Organization (PSO) perinatal practice data to identify opportunities for interventions. In general, "harm events" can be characterized as having no harm (in that a reportable event happened but there was no harm done); mild harm; moderate harm; severe harm; or death. Many hospitals examine their data and classify their events into one of those five categories.

A recent examination of data on harmful events by Clarity PSO, one of the nation's largest Patient Safety Organizations, reveals that the second highest rate of harm events, within event types, are perinatal events. Given the reasons outlined above, perhaps that is to be expected. But of those, 66% involve harm, compared to 24% of "no harm." In almost every other category, "no harm" events are about twice as high as "harm events."

These data suggest that, even in highest risk area of medicine, harm reduction initiatives may not go far enough in getting to the fundamental cause of adverse events. But the data also speak to complexity of OB/GYN care – and the importance of having a team-based approach to collaborate proactively, and to anticipate potential problems that could result in unintended harm.

In a traditional call model, there are numerous factors that may contribute to an environment ripe for error. Those factors include disparity of care, reliance on telephone triage, delays in care, patient miscommunication/dissatisfaction, doctor/midwife practice interruptions, and doctor/midwife stress and fatigue. Many of these factors are exacerbated by the siloed care that occurs in the traditional call model, in which one nurse runs triage for a presenting patient and then communicates, often without the benefit of the full clinical picture, to other stakeholders including the clinician. Both individually and collectively, these factors detract from a culture of safety and harm reduction.

Worse, the traditional call model is based on the "wait….wait…wait…NOW!" system of delivery. Under the watchful eyes of the nursing staff, a woman labors until the decision is made to call her obstetrical clinician, at which point the OB must drop everything – seeing patients in her clinic, having dinner, sleeping – and get to the hospital for the delivery. That potential delay in care is associated with 31 percent of OB claims (22% related to delay in recognizing and treating fetal distress, another 9% with delays in delivery).[1]

The laborist model, in theory, was designed to surmount those challenges. A term first coined in 2003, "laborists" were OB/GYNS who were primarily responsible for the management of laboring women and emergencies in Labor & Delivery. As the model evolved – and terminology changed to "ob/gyn hospitalist" – the American College of Obstetricians and Gynecologists added its stamp of approval, noting in a Committee Opinion that it, "…supports the continued development and study of the obstetric and gynecologic (OB-GYN) hospitalist model as one potential approach to improve patient safety and professional satisfaction across delivery settings. Standardization of medical care has been shown to lead to improved outcomes, and OB-GYN hospitalists can serve as a driving force behind the implementation of these protocols in labor units."[2]

Since 2003, hospitals have explored differing models with varying degrees of success. Some hospitals use in an in-house model, in which existing staff OBs perform limited OB/GYN hospitalist duties. This can be difficult for these clinicians who are simultaneously caring for their private patients while performing OB/GYN hospitalist duties, making them susceptible to being over-extended. Other hospitals use a physician employment model, in which physicians who may or may not also have a private practice are employed by the hospital to perform a contractual list of OB/GYN hospitalist duties. A third option is the management model, in which

hospitals contract with outside companies to recruit and manage OB/GYN hospitalists who provide a wide array of services, implement the program, and oversee its operation.

An aspect included in some of these models that has emerged in recent years is the Obstetrical Emergency Department (OBED). Under an OBED model, all OB patients presenting with an emergency condition are seen by a physician or midwife alongside the obstetrical nurse. Emergent issues are quickly addressed by an OB/GYN with specialized training in those situations. For patients without a primary obstetrician at the hospital, the OB hospitalist cares for the patient from arrival through discharge. For patients whose obstetrician practices at the hospital, the OB Hospitalist addresses the emergent situation with which the patient presents and then coordinates continuing care with her primary obstetrical clinician.

The nucleus of this model is that the nurse and hospitalist work together to triage and take a team- based, “first touch” approach to presenting patients in the OBED. This ensures that the patient begins on a care path that has more effective communication, timely intervention, and proactive identification of potential issues. It helps to eliminate the silos that can lead to harms in care.

A recent study conducted with Ascension Health, the largest non-profit health system in the U.S., offers empirical evidence that this “first touch” model may provide significant benefit in reduction of serious harm incidents. The case study examined the key risk mitigation strategies that resulted in favorable loss trends / claim reduction for the organization in recent years; the researchers supported their analysis with Willis Towers Watson’s National OB benchmarking study of >550 birthing hospitals.

The analysis found that the health system experienced lower claim frequency, and lost cost per birth, than average industry trends found in the benchmarking study, and identified the use of OB hospitalists at their hospitals as a valuable best practice initiative in driving down the loss. Specifically, the analysis identified a 31 percent reduction in serious harm incidents before and after implementation of OBED programs.

A deeper look at PSO and the Ascension data suggests that this “first touch” OBED approach reduces harms because it is structured to *lower the potential for harm*. Under the OBED model, most patient encounters in Labor & Delivery begin with assessment and triage by an OB/GYN

hospitalist. Even if an OB hospitalist is not involved in the delivery, or ultimate co-management of patient, the harm data suggests that it is the early team-based involvement and assessment of the patient that is critical in reducing harm from occurring during their labor and delivery.

A 2015 study by researchers at Northwestern University found adverse events or potential adverse events occurred in approximately 1 in 5 women admitted to a labor and delivery unit.[3] Up until the last few decades, mitigation has focused on improving the practice of medicine – a critically important effort, but one that PSO data tells us must be coupled with transformation of the Labor & Delivery environment. The World Health Organization's 2012 Every Woman, Every Child (EWEC) Innovation Working Group (IWG) report notes that, "Much of healthcare and health-systems based research has focused on pioneering new science. More recently there has been a focus on services already in place — specifically, investigating how to minimize harm in existing health systems and understanding better how current healthcare practice can be made to be as effective and efficient as possible."

It would be welcome irony if the impersonal "adverse event" was eliminated by focusing on the most personal aspect of the delivery of perinatal care: a clinical "first touch."

References

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