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Patient Safety Alert

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Patient Safety in Labor and Delivery: Managing Complex Conditions in a Complex Environment

Labor and Delivery is a fast-paced, complex, clinical environment where emergencies can arise without warning. As such, staff must adopt a proactive approach to patient safety and be continuously vigilant in their ability to respond quickly and effectively to various clinical scenarios in this dynamic environment. Our Comparative Benchmark System (CBS) malpractice data indicates that although the annual rate of OB-related claims is small (representing less than 1 per 1,000 births), the average indemnity per case reaches upwards of a million dollars.[1] Payment for OB-related claims is more than double that seen in other clinical disciplines. Even more troubling than these high losses, is the severity of injury, including maternal and/or infant death, often associated with these cases. A detailed analysis of CBS data reveals that the most frequent, underlying causes of these untoward events are multi-factorial. Generally, they are not the result of a single act by a single individual, but are, instead, a series of slips and failures, converging at a critical moment.

Over the past several years, CRICO has worked with organizational patient safety leaders to investigate the factors leading to preventable OB harm. As a result, we have developed and implemented front-line programs to mitigate clinical risks, such as simulation and team training. These targeted programs have translated into improved safety and quality of care for obstetric patients across CRICO institutions, demonstrated in specific actuarial evidence.

Clearly though, the work is not finished. Through the integrated work of the AMC|PSO and CRICO's Patient Safety Department, we continue to analyze OB-related malpractice claims along with real-time root cause analysis information to identify trends, respond to present system vulnerabilities, and educate our members on new emerging risks.

This Patient Safety Alert has been developed to share insights and learnings gleaned from our review of key issues affecting the field of obstetrics. These alerts are intended to support patient safety by sharing not only the risks but also innovative ideas and strategies for mitigating those risks. The following represents key issues identified through our continued examination of OB claims and root cause analysis data. Issues related to management of second stage labor predominate and are addressed below.

Human Factor Issues:

Failure to accurately assess and document maternal-fetal status including: cervical dilation, effacement and membrane status, and fetal heart rate pattern.

Failure to rescue:

- Defined as "failure to recognize, or act upon early signs of distress," resulting from mistakes in clinical judgment and loss of situational awareness.

Failure of all team members to use standard FHR monitoring nomenclature:

- The inability to relay information using a common, structured language poses an increased risk for misinterpretation of important data. As a recent safety article pointed out, "Physicians, midwives, nurses, and staff train in isolated silos, with differing languages and contrasting perspectives, yet are expected to work in teams."[2]

Delays in utilizing the chain of command or asking for help or a second opinion.

Lack of and need for clearly defined roles and responsibilities of all team members, particularly for those serving as first assistants during operative procedures.

Systems Issues

Lack of interoperability and coordination of existing IT systems:

- New vendor-based electronic medical record systems often do not integrate with legacy electronic perinatal applications. Unintended consequences may result from the utilization of these disparate systems. This risk is heightened when information from the prenatal record does not integrate or populate the inpatient (intrapartum, postpartum, or neonatal) record. This is often due to variation seen in outpatient EMRs and inpatient hospital platforms. As AWHONN notes in their position statement, this adds to increased "inefficiency, fragmentation, and potential for error."[3]

Strategies for Improvement

The following strategies have been recommended to mitigate the risks and vulnerabilities that can lead to patient harm:

- Build and sustain a culture of safety that incorporates leadership, communication, teamwork, and staff empowerment.[4]

- Deliver clear communication during periods of care transition and handoffs (use of verbal mnemonics such as SBAR and I-PASS.)[5]

- Integrate crew resource management (CRM) team training and (CRM) principles to aid staff in developing effective teamwork, communication, conflict resolution, and problem solving skills and abilities.[6]

- Educate staff to recognize early warning signals of clinical deterioration. Develop tools to evaluate the "rescue process."[7]

- Review departmental emergency cesarean birth preparedness.[8]
    - Availability of a surgical suite and back-up team for emergencies.
    - Policies for preparation for surgery upon receipt of a C/S order while awaiting for arrival of MD/team.
    - Presence of identified staff member who will be responsible for neonatal resuscitation if needed.

- Increase situational awareness during cesarean deliveries
    - It is often helpful to have a member of the obstetrical delivery team serve as an official "time keeper" to assist the team in tracking the passage of time as it elapses from incision to delivery. Some institutions have found it helpful to have the circulating nurse call out the time in 30 – 60 second intervals and secure help in a timely fashion when a difficult delivery transpires.

- Require simulation training for high-risk obstetric emergencies such as shoulder dystocia, maternal hemorrhage, emergency cesarean delivery, and newborn resuscitation.[9]

Building Resilience through the Clinical Guidelines for the Obstetrical Services of the CRICO-insured Institutions

The Clinical Guidelines for the Obstetrical Services of the CRICO-insured Institutions are intended to provide guidance for clinicians and to support the safest maternal and fetal outcomes for patients receiving care.

In 2012, the OB Guidelines are again being revised to help standardize key practices and decisions from antenatal visits through labor and delivery and

postpartum care. These guidelines offer a framework for provision of obstetrical care, rather than an inflexible set of mandates. In an effort to further integrate this growing body of clinical guidance, CRICO is supporting a pilot program to provide point-of-care application of CRICO's OB Guidelines and alert clinicians to any variances in care. We will soon pilot implementation of MedCPU, a standalone IT clinical decision support tool, which scans electronic obstetrics records in real time to identify potential risks.

CRICO is grateful to the multi-disciplinary group of clinicians, including obstetricians, nurse leaders, nurse midwives, and anesthesiologists, from numerous CRICO-insured institutions who biannually research, develop, and review the CRICO Clinical Guidelines for Obstetrical Providers.

Building Resilience through the CRICO Obstetrical Patient Safety Program

Human resilience is defined as "the ability to quickly analyze and adapt to challenging situations." Patient safety tools, such as checklists, team training, and simulation, when used appropriately, can complement human resilience and successfully mitigate patient risk and ensure the best outcomes possible.[2] Toward that end, CRICO launched the Obstetrical Incentive Program in 2003, now known as the Obstetrical Patient Safety Program. All CRICO-insured OB providers, Obstetricians, Midwives and Family Physicians, are eligible to participate. The incentive program began as a 10% premium rebate for those providers who completed a series of prescribed requirements over a three-year cycle. The requirements included simulation-based team training coursework, on-line courses addressing shoulder dystocia, electronic fetal monitoring, passing a test on the *Clinical Guidelines for the Obstetrical Services of the CRICO-insured Institutions*, and participation in the hospital's obstetrical safety drills. Sponsoring organizations are also expected to provide OB safety drills and team training refresher sessions for all labor and delivery clinicians.

By 2009, actuarial analyses of CRICO-insured OB providers revealed a noticeable reduction in claims for those providers who elected to participate in the program. The trend in reduction of claims continued through 2011. As of January 1, 2011, the program was transformed from an incentive format into a two-tiered premium structure whereby providers who remained compliant with their OB safety program requirements would be assigned to the lower tier premium category, one that is 16% less than the higher tier category.

As of January 1, 2012, the CRICO Obstetrical Patient Safety Program was reformatted to be a two-year cycle of requirements) and is now being incorporated as a term of credentialing by CRICO-insured institutions.

CRICO's Obstetrical Patient Safety Program and the AMC PSO continue to analyze and address the components of obstetrical care that can lead to adverse outcomes—for mothers and babies—through a multi-pronged approach: clinical guidelines, teamwork training, and in-depth analysis of perinatal adverse events.

Ongoing Program Requirements: Sponsoring Organizations

Institutions that sponsor CRICO coverage for obstetrical care providers participating in the OB Risk Reduction Program must satisfy the following requirements:

1. Safety Drills: Institutions must provide opportunities during the course of the year for obstetrical care providers to participate in Obstetrical Safety Drills.

2. Team Training Refreshers: Institutions must provide opportunities during the course of the year for obstetrical care providers to refresh their team work training.

References

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