The Joint Commission

Sentinel Event Alert

July 21, 2004

Issue 30 - July 21, 2004

Editor's Note to Sentinel Event Alert Issue # 30

Please note that the Sentinel Event statistics have changed since the Sentinel Event Alert Issue #30 was drafted. As of December 31, 2005, there are a total of 109 cases of perinatal death or permanent disability that have been reported to the Joint Commission for review under the Sentinel Event Policy. Of those 109 cases, 93 resulted in infant death and 16 cases involved major permanent disability.

Preventing infant death and injury during delivery

While a healthy and safe birth for the mother and infant is the goal for all labor and delivery units—regardless of the level of services available—in some instances, what should be a joyous, celebratory event turns to tragedy when the newborn dies. The rate of perinatal mortality in the U.S. has steadily declined to a rate of 6.9 deaths per 1,000 live births in 2001. (1) Nevertheless, since 1996, a total of 47 cases of perinatal death or permanent disability have been reported to the Joint Commission for review under the Sentinel Event Policy. Cases considered reviewable under the Sentinel Event Policy are "any perinatal death or major permanent loss of function unrelated to a congenital condition in an infant having a birth weight greater than 2,500 grams." Forty of the cases resulted in infant death and seven cases involved permanent disability. The mothers ranged in age from 13 to 41, with the average and median age being 27 years, and in just over one-half of the cases, it was the first child. The average gestation was 39 weeks.

While the absence of early and regular prenatal care is a leading contributor to the risk of infant death, review of the JCAHO's 47 cases reveals that lack of prenatal care was an identified maternal risk factor in just 4 percent of cases. Other identified maternal risk factors included age (13 percent), previous C-section (11 percent), diabetes (4 percent), and substance abuse (4 percent). Identified complications during the birth included: non-reassuring fetal status (77 percent), placental abruption (8 percent), ruptured uterus (8 percent), and breech presentation (6 percent). Forty-nine percent of the cases were emergency C-section; 46 percent vaginal deliveries; and 4 percent delays in C-section decision. Of the vaginal deliveries, 21 percent were vacuum extraction delivery or attempted; 13 percent mid forceps delivery or attempted; 11 percent failure to do indicated C-section; and 8 percent vaginal birth after C-section (VBAC).

Root causes identified

In the 47 cases studied, communication issues topped the list of identified root causes (72 percent), with more than one-half of the organizations (55 percent) citing organization culture as a barrier to effective communication and teamwork, i.e., hierarchy and intimidation, failure to function as a team, and failure to follow the chain-of-communication. Other identified root causes include: staff competency (47 percent), orientation and training process (40 percent), inadequate fetal monitoring (34 percent), unavailable monitoring equipment and/or drugs (30 percent), credentialing/privileging/supervision issues for physicians and nurse midwives (30 percent), staffing issues (25 percent), physician unavailable or delayed (19 percent), and unavailability of prenatal information (11 percent).

Risk reduction strategies

As required under the Sentinel Event Policy, based on their root cause analyses, organizations develop an action plan citing the steps they will take to reduce the risk of similar future adverse events. The risk reduction strategies identified by these organizations include:

- Revise orientation and training process (70 percent)
- Physician education and counseling (36 percent)
- Revise communication protocols (36 percent)
- Reinforce chain-of-communication policy (28 percent)
- Revise competency assessment (25 percent)
- Standardize equipment and drug availability (25 percent)
- Conduct team training (25 percent)
- Revise consultation and on-call policies and procedures (23 percent)
- Revise Medical Staff credentialing and privileging process (21 percent)
- Institute changes in the patient assessment policy (21 percent)
- Standardize the evaluation and monitoring process (21 percent)
  Revise the staffing plan and process (17 percent)
- Adopt American Academy of Pediatrics (AAP), American College of Obstetricians and Gynecologists (ACOG) guidelines for perinatal care (3) (13 percent)
- Institute mock OB emergency training drills (11 percent)
- Revise the conflict resolution policy (8 percent)
- Revise transfer policies and procedures (4 percent)

Joint Commission recommendations

Since the majority of perinatal death and injury cases reported root causes related to problems with organizational culture and with communication among caregivers (2), it is recommended that organizations:

1. Conduct team training in perinatal areas to teach staff to work together and communicate more effectively.
2. For high-risk events, such as shoulder dystocia, emergency Cesarean delivery, maternal hemorrhage and neonatal resuscitation, conduct clinical drills to help staff prepare for when such events actually occur, and conduct debriefings to evaluate team performance and identify areas for improvement.
3. Review and apply the ACOG VBAC Practice Bulletin, Vaginal Birth after Cesarean Delivery (4); the Standards & Guidelines for Professional Nursing Practice in the Care of Women and Newborn from the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) (5); and the AAP and ACOG guidelines for perinatal care, including those to: (3)
    a. Develop clear guidelines for fetal monitoring of potential high-risk patients, including nursing protocols for the interpretation of fetal heart rate tracings (pages 127, 133-134).
    b. Educate nurses, residents, nurse midwives, and physicians to use standardized terminology to communicate abnormal fetal heart rate tracings (pages 127, 133-134).
    c. Review organizational policies regarding the availability of key personnel for emergency interventions (page 19).
    d. Ensure that designated neonatal resuscitation areas are fully equipped and functioning (page 188).
    e. Develop guidelines for the transfer of patients to a higher level of care when indicated, if essential services cannot be readily provided per ACOG guidelines (Chapter 3, pages 57-71).
4. Use a standardized maternal fetal record form for each admission.

References

1. Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics
2. Joint Statement of Practice Relations Between Obstetrician-Gynecologists and Certified Nurse-Midwives/Certified Midwives
3. Guidelines for Perinatal Care, Fifth Edition, AAP, ACOG
4. ACOG Practice Bulletin, Number 54, July 2004, Vaginal Birth After Previous Cesarean Delivery
5. Standards & Guidelines for Professional Nursing Practice in the Care of Women and Newborns, Fifth Edition, 1998, AWHONN

See additional references.