Guidelines for Obstetrical Anesthesia and Conduction Analgesia for the Certified Registered Nurse Anesthetist

Introduction

The American Association of Nurse Anesthetists (AANA) advocates high patient safety standards for all anesthesia techniques, including general, regional, local or monitored anesthesia care. The practice of obstetrical anesthesia is by no means an exception. Expectations of the parturient, obstetrician and the public at large have demanded a reexamination of the quality of anesthesia care offered in the obstetric unit. Quality assessment and improvement activities, legal ramifications of adverse outcomes and economics have also been instrumental in changing obstetrical anesthesia practice. This anesthesia specialty is of dual importance, because the needs of both the mother and the fetus must be assessed and met.

While pregnancy and childbirth are a normal physiological process, there are many factors which may complicate and play a role in the management of pregnancy, labor and delivery. The American Academy of Pediatrics and the American College of Obstetricians and Gynecologists (AAP-ACOG) have published Guidelines for Perinatal Care which define levels of perinatal care in terms of facilities, equipment and personnel, to assist hospitals and healthcare providers in developing policies and procedures for the care of the obstetrical patient and the unborn child, including the newborn following birth. (American Academy of Pediatrics, American College of Obstetricians and Gynecologists. Guidelines for Perinatal Care 3d ed. Elk Grove Village, IL: AAP, 1992.) Certified Registered Nurse Anesthetists (CRNAs) should make themselves fully aware of these guidelines.

According to Aubry, approximately 20% of pregnant women can be identified prenatally to be at risk. They account for approximately 50-55% of poor pregnancy outcomes. Another 5-10% of pregnant women can be identified to be at risk for the first time during labor, accounting for another 25-30% of poor pregnancy outcomes. Another 20% of perinatal morbidity and mortality occurs in the approximate 70% of pregnant women demonstrating no identifiable risk. (Aubry RH: Identification of the high-risk obstetric patient. In: Ryan GM Jr (ed): Ambulatory Care in Obstetrics and Gynecology, New York, Grune & Stratton, 1980) Furthermore, even if a risk is identified during the antepartum and intrapartum period, transport of such patients to a higher level of obstetrical service may be contraindicated or impossible. Therefore, it is imperative that all CRNAs, no matter what their practice setting, work with other health professionals and hospital administration to assure the availability of needed resources including policies and procedures to appropriately care for obstetrical patients and their newborn infants.

It is further acknowledged that standards and guidelines promulgated by some healthcare professional groups may not be able to be fully met in certain rural and underserved areas. Nevertheless, it is important that CRNAs who often work in these areas strive to ensure the best conditions possible for obstetrical and anesthesia services under the demographic, geographic and other constraints peculiar to the location. CRNAs must recognize that they are responsible and accountable for their practice, for adherence to generally accepted standards of practice and for compliance with institutional and departmental guidelines.

The tradition of the provision of safe anesthesia care by CRNAs is documented by the positive results of numerous anesthesia outcome studies and decreasing anesthesia malpractice insurance rates. In order to maintain their position as competent providers of anesthesia services in the healthcare community, CRNAs must continually assess their practice to ensure that it meets or exceeds generally accepted obstetrical anesthesia practice.

In recognition of the role of a professional organization in promulgating standards and guidelines, the AANA has developed these Guidelines for Obstetrical Anesthesia and Conduction Analgesia to promote the continued safe delivery of obstetrical anesthesia care by CRNAs. The AANA, in adopting and publishing these guidelines, is providing a single yardstick for CRNAs to assess their own practice in order to make changes if needed or warranted. Furthermore, these guidelines complement, rather than supplant, the profession’s defined standards of care.

Qualifications and Availability of Providers

Guideline I

Obstetrical anesthesia, whether by conduction techniques (intrathecal, epidural or caudal epidural block) or general anesthesia techniques should be initiated, monitored and managed by a CRNA or other qualified anesthesia provider.

Interpretation:

A qualified anesthesia provider is a CRNA, an anesthesiologist or a physician who has been approved by a credentialing body or process to administer or collaborate in the administration of obstetrical anesthesia. The anesthesia provider should have the appropriate skills and clinical privileges to administer the types of general or regional anesthesia that may be required for the obstetrical patient.

1Adopted November 1991 to become effective October 1, 1992.
Guideline II
Conduction analgesia (via epidural or intrathecal single dose or via continuous catheter) should be initiated, monitored and managed by a CRNA or other qualified anesthesia provider.

**Interpretation:**
The course of the conduction analgesia should be monitored and documented by the CRNA or other qualified anesthesia provider. The registered professional nurse providing the patient's obstetrical care should monitor the patient and report changes in vital signs, the analgesia level and other alterations in the laboring patient's condition to the anesthesia provider. Adjustment of analgesia levels should be done by the CRNA or other qualified anesthesia provider.

**Guideline III**
Conduction or general anesthesia for an obstetrical surgical procedure should be administered by a CRNA who is in continuous attendance of the patient unless relieved by another qualified anesthesia provider.

**Interpretation:**
Obstetrical surgical procedures may include cesarean section, extraction of retained placenta, uterine manipulation or other types of procedures. The CRNAs primary obligation is to the patient receiving anesthesia for the obstetrical surgical procedure. A simultaneous true emergency with another obstetrical patient may dictate that the needs and risks of both patients be weighed and care provided to both patients to minimize the morbidity and mortality of each.

**Guideline IV**
CRNAs who provide obstetrical anesthesia as a component of their practice should make every effort to initiate anesthesia as soon as possible after a decision is made that an obstetrical emergency requires an anesthesia service.

**Interpretation:**
Under most circumstances, the response time should be no more than 30 minutes from the time the decision is made until initiation of cesarean section. When this is not possible because of personnel, geographic or other potential hospital constraints, policies should be in place to provide a plan of action to minimize adverse outcomes resulting from such delays. While transfer of the patient to another hospital is one such option, consideration should be given to the actual time it would take to effect a transfer as opposed to the arrival time of the CRNA as well as other patient considerations.

**Guideline V**
Prior to the initiation of conduction analgesia, the CRNA should confirm that a physician capable of managing obstetrical emergencies is immediately available.

**Guideline VI**
The CRNA should be immediately available, as defined by institutional policy, when conduction analgesia is in progress.

**Interpretation:**
The criteria defining "immediately available" should be documented in institutional policy, which must contain a contingency plan for management of the conduction analgesia in the event the CRNA becomes engaged in another anesthetic situation.

**Guideline VII**
A qualified healthcare provider, other than the CRNA, should be present during delivery to perform neonatal resuscitation.

**Interpretation:**
Departmental and institutional policies should be developed and approved regarding responsibilities for neonatal resuscitation. Such policies should recognize that in some situations, the CRNA will be the most qualified person available for neonatal resuscitation. While the primary responsibility of the CRNA is to the parturient, any decision to assist in neonatal resuscitation should be made after weighing the risks of diverting attention from the mother's anesthetic or analgesic management and after ensuring that the mother will be continuously monitored.

**Guideline VIII**
The CRNA should perform a preanesthesia assessment and ensure that informed consent has been obtained prior to initiating obstetrical anesthesia or conduction analgesia.

**Interpretation:**
In cases where delays in initiating anesthesia may put the life of the mother or fetus at greater risk, the CRNA must have adequate knowledge of the maternal health history and physical status to tailor an appropriate anesthetic for the patient. Furthermore, the CRNA should weigh the risk of any delay in initiating anesthesia in order to obtain a formal informed consent against the emergency nature of the procedure.

**Guideline IX**
Prior to initiation of obstetrical anesthesia or conduction analgesia, the CRNA must ensure that an evaluation of the parturient, her progress in labor and the status of the fetus has been performed and documented in the patient's record. An order authorizing this service must be obtained from the attending physician.
Interpretation:
The CRNA must ascertain that the attending physician is aware of the patient's status prior to initiation of any analgesia or anesthesia service.

Monitoring and Equipment
Guideline X
In addition to such monitoring as may be indicated from the standpoint of obstetrical management, patients receiving conduction analgesia during labor should be monitored as defined in departmental policies. At a minimum, this should include heart rate, blood pressure and patient comfort level. In addition, oxygen saturation should be monitored and documented if indicated by the condition of the parturient or fetus.

Interpretation:
There should be a policy defining monitoring requirements for obstetrical patients receiving conduction analgesia during labor which takes into consideration those periods of initiation of analgesia, stabilized levels of analgesia and reinjection of analgesic drugs. Oxygen saturation should be monitored to document adequacy of oxygenation if significant hypotension or other complications occur or if the fetal heart rate suggests fetal compromise. Compliance with the policy should be demonstrated through appropriate documentation of the monitoring data, including evidence of appropriate intervention as may be indicated by such data.

Guideline XI
Obstetrical patients receiving anesthesia for a surgical procedure in a delivery room should be monitored according to the Patient Monitoring Standards of the AANA. (See next page.)

Interpretation:
It is the responsibility of the CRNA to ensure that appropriate monitoring equipment is available to deliver obstetrical anesthesia services or to seek transfer of patients to facilities having such equipment when such a transfer will not further endanger the patient.

Guideline XII
The CRNA should ensure that adequate anesthesia equipment, monitors and supplies for administering and managing an anesthetic are available in obstetrical settings. Such equipment and supplies should be comparable to that found in the operating room for use on surgical patients.

Interpretation:
Routine and emergency drugs, supplies, monitoring and resuscitation equipment, including oxygen, intubation equipment, positive pressure breathing devices and suction, should be available where conduction analgesia or obstetrical anesthesia is administered. Appropriate equipment and drugs for resuscitation of the neonate should be available in every delivery room. A defibrillator should be available in the labor and delivery suite.

Guideline XIII
All obstetrical patients who are undergoing an analgesia/anesthesia procedure should be considered to have a full stomach and should be afforded protection from the risks and complications of aspiration pneumonitis.

Interpretation:
The patient should take nothing by mouth during labor except small sips of water, ice chips or a preparation to moisten the mouth and lips. Protection from the morbidity of aspiration may be provided by pharmacological intervention. If a general anesthetic is to be administered, a rapid sequence induction and intubation with application of cricoid pressure should be performed.

Guideline XIV
All obstetrical patients who receive analgesia/anesthesia should have an intravenous catheter inserted and an appropriate type and volume of fluid administered.

Interpretation:
Administration of appropriate IV fluids will maintain hydration of the patient. Preloading with fluids is indicated prior to conduction analgesia or obstetrical anesthesia. Intravenous cannulation affords direct access for the administration of pharmacologic agents in the event of complications.

Guideline XV
Postanesthesia care should be available, consistent with the analgesia or anesthesia technique administered and the condition and needs of the patient.

Interpretation:
Postanesthesia care for the patient receiving major conduction or general anesthesia should be consistent with the AANA Postanesthesia Care Standards. This immediate postanesthesia care may be given in the obstetrical unit rather than in a postanesthesia care unit. When conduction analgesia is utilized for labor and vaginal delivery, the appropriate monitoring modalities to be utilized in the postanesthesia period shall be determined by the patient’s condition. The CRNA should remain with the patient until another qualified healthcare provider accepts responsibility for the patient’s care.

Guideline XVI
A quality assessment and improvement program for anesthesia-attended obstetrical and neonatal patients should be developed and maintained.

Interpretation:
Departmental policies and procedures, in conjunction with the analysis of the annual statistics determined through quality assessment, should be reviewed yearly.