American Society of Anesthesiologists®

Guidelines for Neuraxial Analgesia or Anesthesia in Obstetrics

Committee of Origin: Obstetric Anesthesia

(Approved by the ASA House of Delegates on October 12, 1988, and last amended on October 13, 2021)

These guidelines apply to the use of neuraxial analgesia or anesthesia administered to the parturient during labor and delivery and are intended to encourage quality patient care but cannot guarantee any specific patient outcome. Because the availability of anesthesia resources may vary, members are responsible for interpreting and establishing the guidelines for their own institutions and practices. These guidelines are subject to revision from time to time as warranted by the evolution of technology and practice.

GUIDELINE I
Neuraxial analgesia or anesthesia should be initiated and maintained only in locations in which appropriate resuscitation equipment and drugs are immediately available to manage procedurally related problems.

Resuscitation equipment should include, but is not limited to: sources of oxygen and suction, equipment to maintain an airway and perform endotracheal intubation, a means to provide positive pressure ventilation, and drugs and equipment for cardiopulmonary resuscitation.

GUIDELINE II
Neuraxial analgesia or anesthesia should be initiated and maintained by a physician with appropriate privileges or under the medical direction of such an individual.

Physicians should be approved through the institutional credentialing process to initiate and direct the maintenance of obstetric anesthesia and to manage procedure related complications.

GUIDELINE III
Neuraxial analgesia or anesthesia should not be administered until: 1) the patient has been examined by a qualified individual[1]; and 2) a physician with obstetrical privileges to perform operative vaginal or cesarean delivery, who has knowledge of the maternal and fetal status and the progress of labor and who agrees with the initiation of labor analgesia, is readily available to supervise the labor and manage any obstetric complications that may arise.

Under circumstances defined by department protocol, qualified personnel may perform the initial pelvic examination. The physician responsible for the patient's obstetrical care should be informed of her status so that a decision can be made regarding present risk and further management.

GUIDELINE IV
An intravenous infusion should be established before the initiation of neuraxial analgesia or anesthesia and maintained throughout the duration of the neuraxial anesthetic.

GUIDELINE V
Neuraxial analgesia for labor and/or vaginal delivery requires that the parturient's vital signs and the fetal heart rate be monitored and documented by a qualified individual. Vital signs should be obtained prior to and during placement of neuraxial analgesia (heart rate, pulse oximetry and blood

pressure). Rapid changes in patient hemodynamic and neurologic status can occur from an unintended complication (e.g. unintended intrathecal injection, local anesthetic systemic toxicity). Rapid diagnosis and treatment may prevent further complications.

Therefore, the patient should remain under continuous direct observation by an anesthesia provider, labor nurse, or midwife for at least 20 minutes following initial administration of neuraxial medication. During this 20-minute period, the patient should have continuous heart rate and pulse oximetry monitoring with blood pressure measured at least every 5 minutes. When feasible, it is recommended that blood pressure be measured every 2 minutes during the first 10 minutes. Severe hypotension can occur acutely from anesthetic drug administration into the neuraxial space, or unintended administration into a blood vessel. Rapid diagnosis and treatment may prevent further complications. For additional provider administered neuraxial doses sufficient to induce significant hemodynamic alteration, monitoring consistant with initiation of the block is recommended.

When extensive neuraxial blockade is administered for complicated vaginal delivery, the standards for basic anesthetic monitoring should be applied[2]. These minimum standards include continuous heart rate, pulse oximetry and blood pressure measurement at least every 5 minutes following administration of the additional neuraxial anesthetic and during the delivery.

GUIDELINE VI
Neuraxial analgesia or anesthesia for cesarean delivery requires that the standards for basic anesthetic monitoring[2] be applied and that a physician with privileges in obstetrics be immediately available. If an epidural for labor analgesia is converted to an epidural for surgical anesthesia, these standards should begin at the time the epidural is bolused with medication for neuraxial analgesia or anesthesia.

GUIDELINE VII
Qualified personnel, other than the anesthesiologist attending the mother, should be immediately available to assume responsibility for resuscitation of the newborn.

The primary responsibility of the anesthesiologist is to provide care to the mother. If the anesthesiologist is also requested to provide brief assistance in the care of the newborn, the benefit to the child must be weighed against the possible risk to the mother.

GUIDELINE VIII
A physician with appropriate privileges remain readily available during the neuraxial anesthetic or analgesic to manage complications until the patient's postanesthesia condition is satisfactory and stable.

GUIDELINE IX
All patients recovering from neuraxial analgesia or anesthesia should receive appropriate postanesthesia care. In the immediate postpartum period following vaginal delivery, blood pressure and pulse should be monitored at least every 15 minutes for two hours, but more frequently and for a longer duration in the event of complications, in accordance with both ACOG and AWHONN guidelines[3,4]. Following cesarean delivery and/or extensive neuraxial blockade that provides surgical anesthesia for complicated vaginal delivery, the standards for postanesthesia care should also be applied.

Motor blockade should also be assessed hourly[4] and if it persists at 4 hours from discontinuation of neuraxial anesthetic infusion or last dose of medication, an anesthesia provider should be consulted to evaluate.[5]

GUIDELINE X
There should be an institutional policy to assure the availability in the facility of a physician to manage complications and to provide cardiopulmonary resuscitation for patients receiving postanesthesia care.

REFERENCES:

1) Practice Guidelines for Obstetric Anesthesia. An Updated Report by the American Society of Anesthesiologists Task Force on Obstetric Anesthesia and the Society for Obstetric Anesthesia and Perinatology. Anesthesiology, V 124, No 2, 2016.
2) Standards for Basic Anesthetic Monitoring. Developed by the ASA Committee on Standards and Practice Parameters. Last amended October 28, 2015.
3) Postpartum Care of the Mother, Chapter 8. In Kilpatrick SJ and Papile L (Eds.) Guidelines for Perinatal Care (8th Edition). Published by The American Academy of Pediatrics and The American College of Obstetricians and Gynecologists, 2017
4) Immediate Postpartum Care. Analgesia and Anesthesia in the Intrapartum Period, an Evidence-Based Clinical Practice Guideline. Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN). p S45, 2020.
5) Yentis SM, et al. Safety guideline: neurological monitoring associated with obstetric neuraxial block 2020. A joint guideline by the Association of Anaesthetists and the Obstetric Anaesthetists' Association. Anaesthesia 2020, 75, 913–919.