Relationship of Epidural to Overall Length of Labor and Duration of the Second Stage

The vast majority of studies indicate that labor is lengthened in women with epidural anesthesia.[177] Also, a recent retrospective analysis of 42,000 women demonstrated that epidural use is associated with a larger effect on the second stage of labor than previously suspected.[184]

The amount of anesthetic administered may also play a role. A 2011 meta-analysis of epidural anesthetic concentrations revealed that low concentrations (less than or equal to 0.1% epidural bupivacaine or less than or equal to 0.17% ropivacaine) were associated with fewer operative vaginal deliveries and a shorter second stage.[171]

A statement by the American Congress of Obstetricians and Gynecologists and the American Society of Anesthesiologists states, "There is no other circumstance where it is considered acceptable for an individual to experience untreated severe pain amenable to safe intervention, while under a physician's care. In the absence of a medical contraindication, maternal request is a sufficient medical indication for pain relief during labor. Pain management should be provided whenever medically indicated."[183]

Innovations in Obstetric Anesthesia

In recent years, there have been many innovations in obstetric anesthesia including drug combinations, dosing, and delivery systems. At the forefront of these advances is the goal of improving patient satisfaction while simultaneously reducing the overall consumption of local anesthetic and subsequent need for anesthetic intervention. For laboring women, studies have shown that patient-controlled epidural anesthesia (PCEA) is superior to fixed dose continuous infusion epidural (CIE).[170] In comparison to CIE, PCEA offers less analgesic consumption and need for anesthetic intervention. PCEA with background maintenance infusion improves overall pain control and decreases the need for unscheduled rescue boluses as compared to PCEA alone.[173]

Recent studies comparing programmed intermittent epidural bolus (PIEB) to CIE show that PIEB improves satisfaction, results in less anesthetic consumption while maintaining analgesia,[185] and may decrease motor block, an essential goal for obstetric anesthesia.[174]

6. Implement Intermittent Fetal Monitoring Policies for Low-Risk Women

The type of fetal monitoring, like other interventions, should be based upon the risk profile and needs of the woman. The vast majority of the low-risk NTSV population are candidates for intermittent auscultation or intermittent EFM, and the use of intermittent methods is supported by the AWHONN[160,186] and the ACOG.[137] The ACNM endorses intermittent auscultation as the preferred method for low-risk women.[138] *Table 13* outlines the requirements for intermittent EFM or intermittent auscultation as the default method of monitoring.

Table 13. Components of Successful Implementation of Intermittent Fetal Monitoring

Components of Successful Implementation of Intermittent Fetal Monitoring
Policies should include a risk assessment tool or checklist with exclusion criteria to assist in identifying women for which intermittent auscultation or intermittent EFM is appropriate[85]
Provide patient education for the use of intermittent methods of monitoring, including the risks and benefits of intermittent versus continuous methods, and engage in shared decision making in order to determine most appropriate method for each woman
Provide on-going assessments of women to determine appropriateness of continued intermittent methods versus conversion to continuous EFM[85]
Engage in initial and ongoing training and education of all nurses and providers on intermittent auscultation or intermittent EFM procedures
Provide appropriate staffing, e.g. 1:1 nursing care as recommended by AWHONN for intermittent auscultation in low-risk women[160]
Work with necessary committees and Information Technology (IT) to modify admission orders to reflect the use of intermittent EFM or auscultation as the default mode of monitoring for women who do not meet the exclusion criteria
Ensure that the appropriate equipment, such as Dopplers, are readily available in sufficient numbers
Develop a competency tool for evaluating knowledge of procedures and use of equipment

Many providers and nurses currently have no experience with intermittent methods of monitoring. Implementing intermittent monitoring as the default method for low-risk women will require "tapping into" a unit culture that prioritizes supportive, appropriate, evidence-based care. Intermittent monitoring should not be undertaken until providers and nurses have been adequately trained. Furthermore, women must be made aware of the risks and benefits of intermittent versus continuous methods. Shared decision making is critical.

7. Implement Current Treatment and Prevention Guidelines for Potentially Modifiable Conditions

Assessment of Fetal Presentation and External Cephalic Version (ECV)

Fetal presentation should be assessed by 36 weeks gestation and external cephalic version should be offered to women with a singleton breech fetus.[3] It is incumbent upon physicians to engage in initial training for ECV and maintain competency. Regional anesthesia can be utilized to increase likelihood of successful ECV.[187] If ECV is unsuccessful, cesarean delivery is the preferred mode of delivery.[188] Alternatively, vaginal breech delivery is an option with a skilled provider who has significant experience in such cases, but should be undertaken with an abundance of caution. The woman should be informed that higher risk to the neonate may exist for vaginal breech deliveries than for planned cesarean of the breech fetus.[3]

HSV Prophylaxis

Administration of acyclovir for viral suppression and prevention of outbreaks during pregnancy has been shown to be highly effective[189] and remains the most important strategy to reduce active genital lesions at the time of labor.[3] All women with a history of genital herpes, including those without active lesions during the current pregnancy, should be offered oral suppressive therapy at 36 weeks gestation, or within 3-4 weeks of anticipated delivery. A cesarean need not be performed on women with a history of genital herpes but no active genital lesions at the time of labor.