One of the most critical aspects of safe nursing care during labor induction and augmentation is titration of intravenous (IV) oxytocin based on maternal and fetal response. Vigilance is required to avoid excessive uterine activity, because it can increase risk of fetal compromise and adverse maternal and fetal outcomes. Recent research suggests risk of progressive deterioration in fetal status in the context of excessive uterine activity. In a study that involved 1,433 women, contractions that occurred every 5 minutes or more during the last hour of first-stage labor were associated with newborn acedia at birth (umbilical artery pH < 7.11) (Bakker, Kurver, Kuik, & van Geijn, 2007). This same contraction frequency over 30 minutes in the first-stage labor is also associated with a 20% to 29% decrease in fetal oxygen saturation (Simpson & James, 2008). During excessive uterine activity, the fetus attempts to compensate because uterine blood flow and fetal oxygenation are negatively affected, which activates the autonomic nervous system and results in a decrease in fetal heart rate (FHR) variability and appearance of recurrent decelerations (Bakker & van Geijn, 2008). These findings are consistent with earlier evidence that suggests that over time, excessive uterine activity during labor can have a negative effect on fetal status and newborn outcomes at birth (Bakker & van Geijn, 2008).

In the context of maternal–fetal assessments by labor nurses every 15 minutes during oxytocin-induced labor, the question arises as to how excessive uterine activity occurs. One issue is lack of consensus regarding what constitutes normal versus excessive uterine activity. For example, some clinicians believe that an abnormal or nonreassuring FHR pattern must be evident; others believe the woman must be reporting significant pain. This is often the source of clinical disagreements between nurses and physicians (Simpson, James, & Knox, 2006). Nurses report being pressured by some physician colleagues to “push the pit,” “keep it going,” or even in some cases “pit to distress” (Simpson et al., 2006). Yet ultimately, in most hospitals, it is the nurse who is responsible for oxytocin administration and avoiding excessive uterine activity. Attributing inappropriate nursing care to physician pressure is outdated. Each member of the perinatal team must act in accordance with the principles of safe care, including seeking consultation with the charge nurse if clinical disagreements cannot be resolved.

Although prevention is the best approach, there are situations in which excessive uterine activity occurs despite careful vigilance. Recent evidence suggests that the most efficacious treatment includes collective initiation of lateral maternal repositioning, an IV fluid bolus of 500 mL of lactated Ringer’s solution, and temporarily discontinuing the oxytocin infusion until uterine activity returns to normal (Simpson & James, 2008). Treatment should not be delayed until the FHR pattern is abnormal or nonreassuring (Simpson, 2008).

An extensive review of the literature regarding prevention, identification, and treatment of excessive uterine activity is included in the new edition of the practice monograph Cervical Ripening and Induction and Augmentation of Labor from the Association of Women’s Health, Obstetric and Neonatal Nurses. Review this practice resource and share with other members of the perinatal team so you are prepared to do all that you can to keep mothers and babies safe during labor induction and augmentation.

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References