Care Practice #4: No Routine Interventions

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ABSTRACT

This updated edition of *Care Practice Paper #4* presents the evidence for risks of routinely intervening in normal physiologic labor and birth. The authors review evidence related to the routine use of restrictions on oral intake, intravenous lines, continuous electronic fetal monitoring, artificial rupture of membranes, pharmacologic augmentation of labor, epidural analgesia, and episiotomy. Medical indications for each intervention are listed. Women are encouraged to avoid routine interventions in labor unless interventions are medically indicated.

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A pregnant woman in a Lamaze class asks the childbirth educator, “On TV, it seems that most laboring women are in bed hooked up to machines like the one that monitors the baby’s heartbeat. Isn’t birth safer with today’s technology?”

Advances in medical care have made birth safer, especially for women with high-risk pregnancies and for preterm babies. In many hospitals, obstetric interventions such as restrictions on eating and/or drinking, intravenous lines, electronic fetal monitoring (EFM), augmentation (speeding up labor), and epidural analgesia are routine and are used on all women even without a specific medical reason. However, research does not show that the routine use of these interventions makes birth safer for women and babies. In fact, unless there is a clear

medical reason for an intervention, interfering with the natural process of labor and birth is not likely to be beneficial and actually may be harmful.

RESTRICTIONS ON EATING AND DRINKING

In birth settings that allow women to drink and eat in labor, most women choose to do so. However, in a recent survey of U.S. women who gave birth in 2005, only 40% drank anything in labor, and only 15% ate anything in labor (Declercq, Sakala, Corry, & Applebaum, 2006). Hospitals began restricting food and fluids about 50 years ago, when women often gave birth under general anesthesia without their airway protected. At that time, doctors believed that fasting reduced the chance that stomach contents would enter the lungs (aspiration) if a woman vomited during general anesthesia. Anesthesia techniques have greatly improved in the last 50 years. General anesthesia is rare in modern

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THE SIX CARE PRACTICES THAT SUPPORT NORMAL BIRTH

Care Practice #4: No Routine Interventions

Key Points

- Any intervention in labor or birth has possible benefits and risks.
- When interventions are used in normal labor and birth, women and babies are exposed to unnecessary risks.
- You should choose a healthcare provider and place of birth that provides you with the full range of choices for your care and uses interventions only when they are medically necessary.

obstetrics, aspiration is rare in modern anesthesia, no period of fasting guarantees an empty stomach, and clear liquids leave the stomach almost immediately. Despite these facts, many health-care providers continue to restrict eating and drinking during normal labor.

A recent review of the research on this topic found that there is no evidence that restricting food and fluids in normal labor is beneficial (Goer, Leslie, & Romano, 2007). Recent research shows that eating and drinking are safe in normal labor (Goer et al., 2007; Kubli, Scrutton, Seed, & O'Sullivan, 2002; Scrutton, Metcalfe, Lowy, Seed, & O'Sullivan, 1999; Tranmer, Hodnett, Hannah, & Stevens, 2005). Based on the best evidence available, food and fluid should not be routinely restricted in labor.

The American Society of Anesthesiologists and the American College of Obstetricians and Gynecologists (ACOG) recommend that clear fluids be given to low-risk woman during labor (ACOG, 2002; American Society of Anesthesiologists Task Force on Obstetric Anesthesia, 2007). The American College of Nurse-Midwives (2000) recommends that healthy women experiencing normal labors determine for themselves what, if anything, they wish to eat or drink. The Cochrane Pregnancy and Childbirth Group recommends a diet of easy-to-digest foods and fluids during labor (Enkin et al., 2000).

USE OF INTRAVENOUS FLUIDS

Intravenous (IV) therapy has been used routinely to prevent dehydration in women who were restricted from eating and drinking and to provide quick access to a vein in case of an emergency. However,

researchers have questioned the need for IVs in all laboring women (Begun, Sengupta, Chattopadhyay, Thornton, & Sengupta, 1999; Goer et al., 2007). Life-threatening emergencies are rare in low-risk laboring women. Also, IVs are not harmless: IVs do not provide the ideal balance of nutrition or energy offered by food and fluids, some women find having an IV painful and stressful, and IVs make it hard for women to change positions and move around freely. According to the Cochrane Pregnancy and Childbirth Group, a respected worldwide source of information about evidence-based care, routine use of IVs is not likely to be beneficial (Enkin et al., 2000). No studies demonstrate that routinely placing an IV in low-risk laboring women prevents poor outcomes (Enkin et al., 2000; Goer et al., 2007).

If your labor is induced or speeded up, you have an epidural, you need intravenous medicine such as antibiotics, or you are unable for other reasons to eat or drink, you will need an IV.

CONTINUOUS ELECTRONIC FETAL MONITORING

Your baby's heart rate can be monitored either by listening with a Doppler or stethoscope (auscultation) or with electronic fetal monitoring (EFM). Electronic fetal monitoring can be done intermittently (on a schedule) or continuously (constantly). An example of intermittent EFM is when a monitor is left on you for 20 minutes each hour during labor and removed for the remaining 40 minutes. While the monitor is off, you are free to move around and to use comfort measures such as the tub or shower. Continuous EFM restricts your ability to move and change positions and, in many hospitals, you may be required to stay in bed. Your access to a wide variety of comfort measures, such as the use of a shower, bath, or birth ball, may be restricted when you have continuous EFM.

Intermittent auscultation (listening) with a Doppler is the least restrictive method and is safe in normal labors. With intermittent auscultation, you can usually labor in whatever position you like while the nurse or midwife listens to your baby's heart rate for brief periods of time. Recommendations for monitoring by intermittent auscultation depend on whether your labor is considered low risk or high risk. For a low-risk labor, experts recommend that your nurse or midwife listen to the baby's heartbeat every 30 minutes during active labor and every 15 minutes during second stage (the bearing-down

phase of labor). For a high-risk labor, the nurse or midwife should listen to your baby's heartbeat every 15 minutes during active labor and every 5 minutes during second stage (ACOG, 2005).

Studies comparing intermittent auscultation with EFM find that continuous EFM increases the number of interventions in labor and increases the risk of cesarean surgery and instrumental vaginal birth (requiring forceps or vacuum assistance). However, research findings indicate that babies born after continuous monitoring are not any healthier than those born after intermittent auscultation (Goer et al., 2007; Thacker & Stroup, 2001). For these reasons, ACOG (2005) and the Association of Women's Health, Obstetric and Neonatal Nurses (2000) say that healthy women with no complications may be monitored with intermittent auscultation or with EFM. In fact, ACOG (2000) suggests using intermittent auscultation instead of EFM as a way to safely decrease the cesarean rate.

Talk with your health-care provider about using auscultation or intermittent EFM instead of continuous EFM. However, if you have a medical complication, your labor is induced or speeded up artificially, you have an epidural, or there is a problem during labor, you will need continuous EFM.

SPEEDING UP LABOR: ARTIFICIAL RUPTURE OF THE MEMBRANES AND AUGMENTATION OF LABOR

Making labor quicker sounds appealing, but interfering with the pace and length of labor without a medical reason is not likely to be beneficial (Enkin et al., 2000). Each labor is unique and influenced by a number of factors, including the size and position of the baby, the laboring woman's ability to move freely, the confidence the woman feels, and the support she receives during labor. Breaking the bag of water (rupturing membranes) may shorten labor, but there are tradeoffs (Enkin et al., 2000; Goer et al., 2007). The bag of water surrounding your baby protects him or her from infection and pressure as he or she moves through the birth canal. If a health-care provider ruptures the membranes early in labor, research suggests that the woman's chance of cesarean section increases (Fraser, Turcot, Krauss, & Brisson-Carrol, 1999). Because prolonged rupture of the membranes is associated with increased risk of infection in both mother and baby, in a very real sense, the clock starts ticking after a woman's water breaks. If labor does not progress after membranes rupture, the health-care provider may

suggest the use of artificial oxytocin (Pitocin) to speed up labor.

In normal labor, oxytocin is released in the brain. When oxytocin reaches a high level, endorphins are released. Endorphins, the body's natural pain-reducing hormones, help women cope with labor pain. Pitocin given through an IV does not reach the brain, so there is no release of pain-reducing endorphins.

Pitocin changes labor in other ways as well. Contractions are stronger, longer, and often more painful. When Pitocin is used, the woman will need other interventions, including an IV and continuous EFM. With Pitocin, women are usually restricted to bed without the comfort of moving around freely or using a warm tub or shower. Stronger contractions, loss of endorphins, and the inability to use comfort measures increase the likelihood of needing an epidural.

According to the Cochrane Pregnancy and Childbirth Group, "allowing women to move around and to eat and drink as they please may be at least as effective and certainly more pleasant for a sizeable proportion of women considered to be in need of augmentation" (Enkin et al., 2000; p. 237). Research suggests that rupturing membranes and utilizing Pitocin augmentation should be reserved for women with truly abnormal labor progress (Fraser et al., 1999). Neither intervention should be used routinely or without a medical reason.

EPIDURAL ANALGESIA

Most women are afraid of the pain of labor and birth and are eager to use pain medication, especially when it is as effective as epidurals in relieving pain or when hospital restrictions make it hard to manage the pain of contractions without medication. In some hospitals, more than 90% of women use epidurals during labor. In a recent survey of childbearing women in the United States, 76% of the women who had a vaginal birth reported having an epidural (Declercq et al., 2006). In an earlier survey, as many as 41% of the mothers who used an epidural in labor were unaware of the procedure's possible side effects (Declercq, Sakala, Corry, Applebaum, & Risher, 2002).

With an epidural, because the pelvic muscles relax, it may take longer for the baby to rotate and descend through the birth canal, and the baby is more likely to get stuck in a position (called "posterior") that makes cesarean surgery much more likely (Lieberman, Davidson, Lee-Parritz, & Shearer, 2005). The absence of pain can interfere with your

natural release of oxytocin and may lead to the need for Pitocin. Epidural medication can cause a drop in your blood pressure, so you will need IV fluids both before and during the epidural. Lower blood pressure can cause a drop in blood (and oxygen) flow to your baby, so you will need continuous EFM if you have an epidural. Some women with epidurals do not feel when they need to urinate, so you may need a catheter to empty your bladder.

The changes in the way labor and birth unfold and the interventions needed to watch for, prevent, and manage side effects during an epidural set the stage for a number of possible problems. Studies show that epidurals are associated with a lower rate of spontaneous vaginal birth, a higher rate of instrumental birth (vacuum or forceps), and longer labors, particularly for women having their first babies. Studies also show that women with epidurals have a higher rate of fever during labor and, as a result, their babies may need to be tested and treated for possible infections, necessitating separation of mothers from their babies after birth (Lieberman & O'Donoghue, 2002). There is some evidence that the use of an epidural, especially for first-time mothers, may increase the likelihood of cesarean surgery (Anim-Somuah, Smyth, & Howell, 2005; Klein, 2006; Lieberman & O'Donoghue, 2002).

Epidural medication does affect the baby. The newborns of women who receive certain kinds of epidurals (that include a narcotic drug) have more problems breastfeeding in the first hours, days, and weeks after birth (Beilin et al., 2005; Jordan, Emery, Bradshaw, Watkins, & Friswell, 2005; Lieberman & O'Donoghue, 2002; Radzysinski, 2003, 2005; Torvaldsen, Roberts, Simpson, Thompson, & Ellwood, 2006).

It makes sense to carefully weigh the risks and benefits of epidural use before making a personal decision. Each labor is unique. If your labor is especially long and you are very tired, an epidural can provide a break that may be beneficial. There may be a medical reason for an epidural (e.g., if you need a cesarean). If you are free to move and encouraged to find comfort in a variety of ways, you are less likely to need an epidural at all, to need one early in labor, or to need as much medicine. Using a smaller dose of epidural medicine or using it later in labor may reduce the chance of side effects.

EPISIOTOMY

Until recently, episiotomy (surgically cutting the area between the vagina and the anus—an area

called the “perineum”—in order to make the vaginal opening larger during pushing) was done routinely in the United States. Twenty-five percent of U.S. women who gave birth in 2005 had an episiotomy, a considerable decrease from a decade ago (Declercq et al., 2006.) This decrease was spurred by research findings suggesting that the routine or frequent use of episiotomy is a harmful practice. However, the rate is still higher than it should be, especially in first-time mothers.

There is no evidence that an episiotomy reduces the risk of perineal injury, improves perineal healing, prevents birth injury in babies, or reduces the risk of future incontinence (involuntary loss of urine or feces). In fact, an episiotomy is associated with *more* pain, sexual problems, and incontinence after birth (Goer et al., 2007; Hartman et al., 2005; Klein et al., 1994; Renfrew, Hannah, Albers, & Floyd, 1998). Also, episiotomies done to “prevent” tears that the provider thinks are about to happen actually cause more tears (Dannecker et al., 2004). The episiotomy rate can be safely lowered to 10% or even lower (Goer et al., 2007).

RECOMMENDATIONS FROM LAMAZE INTERNATIONAL

Lamaze International recommends that restrictions on eating and drinking and that the use of IVs, continuous EFM, artificial rupture of the membranes, augmentation of labor, epidurals, and episiotomies be used only when medically necessary. When a provider intervenes in the normal process of labor or birth, there should always be evidence that the intervention is likely to do more good than harm. Lamaze International encourages you to have confidence in your ability to give birth without routine interventions or restrictions. Lamaze International further encourages you to choose a health-care provider and place of birth that provides you with the full range of choices for your care and uses interventions only when medically necessary.

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