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Active Management of Third Stage of Labor

By Patty Brennan

Definitions and Related Facts

Postpartum hemorrhage and complications of third stage of labor

- Blood loss greater than 500 ml (a little over two cups), with severe postpartum hemorrhage being loss of 1,000 ml or more, and very severe being a loss of 2,500 ml or more.
- Anemia in the mother can pre-exist or be the result of hemorrhage; severe cases may necessitate a blood transfusion.
- Postpartum hemorrhage is the main cause of maternal death in several countries, the vast majority of which occur in the developing world.

Active management of third stage

- A uterotonic medication is administered to all mothers immediately prior to or after delivery.
- Early clamping and cutting of the umbilical cord, often before the cord ceases to pulse (thereby cutting off the transfer to the baby of his/her full blood volume).
- Wait one minute, after clamping the cord, and initiate controlled cord traction for delivery of the placenta.

Expectant management of third stage

- Signs of placental separation are awaited, and the placenta is delivered spontaneously via normal uterine contractions.
- May involve nipple stimulation by putting the baby to breast immediately after delivery, stimulating an oxytocin surge in the mother.
- Medical interventions that interfere with the body's natural oxytocin release may reduce the effectiveness of the normal physiological process (because oxytocin release can be inhibited by anxiety and excess adrenaline, oxytocin augmentation in labor, and administration of epidural or narcotic analgesia).
- The umbilical cord is left intact until it has ceased pulsing and baby has received his/her full blood volume.
- Uterotonic drugs are used only in cases of excess bleeding.

What does the evidence say?

Medical recommendations in favor of active management over expectant management of third stage of labor are based on a Cochrane Review of eight studies involving 8,892 women. For all women, irrespective of their risk for severe bleeding, active management protocols reduced the incidence of severe postpartum blood loss, maternal blood transfusions, and postpartum

anemia. At the same time, the following statistically significant negative effects of active management were noted:

- Increase in mother's blood pressure, afterpains, vomiting, and use of drugs for pain relief; these effects are due to administration of a specific uterotonic (choice of drug used, specifically ergometrine).
- Increase in the number of women returning to the hospital ER after discharge due to bleeding (thought to be caused by controlled cord traction leading to retained shreds of membrane or placenta). It should be noted that such bleeding takes place away from immediate access to medical assistance—a concern of greater significance for women in low-income countries where access to medical care is more limited.
- Decrease in newborn birth weight due to early cord clamping leading to a 20 percent reduction in the baby's overall blood volume and a higher incidence of anemia in the infant.

Conclusions

"It must be emphasized that this review includes only a small number of studies with relatively small numbers of participants, and the quality of evidence for primary outcomes is low or very low."

"Although the data appeared to show that active management reduced the risk of severe primary postpartum hemorrhage at the time of birth, we are uncertain of this finding because of the very low-quality evidence. Active management may reduce the incidence of maternal anemia following birth, but harms such as postnatal hypertension, pain, and return to hospital due to bleeding were identified."

"In women at low risk of excessive bleeding, it is uncertain whether there was a difference between active and expectant management for severe PPH."

"Women could be given information on the benefits and harms of both methods to support informed choice. Given the concerns about early cord clamping and the potential adverse effects of some uterotonics, it is critical now to look at the individual components of third-stage management. Data are also required from low-income countries."

Source:

Begley, C., G. Gyte, D. Devane, W. McGuire, and A. Weeks. (2019). Active versus expectant management for women in the third stage of labor. *Cochrane Library.* Retrieved from: https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD007412.pub5/full

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My Commentary

Question for Parents to Consider. For low-risk women, especially those experiencing drug free labors, do the benefits of active management of third stage of labor outweigh the risks? *Parents are encouraged to discuss the benefits and risks of the active management approach with their midwife or doctor as it applies uniquely to their situation.*

When Things Are Happening Fast and Informed Consent. In my experience, in healthcare settings where active management is routine, informed consent for this practice is rare. Two specific pieces of active management—early cord clamping and administration of Pitocin—are usually completed within a minute after birth. Therefore, many parents (being distracted) may not even notice what is done until after the fact. Parents who prefer an expectant management approach will need to discuss their preferences with their care provider, express their wishes in a birth plan, and then be prepared to advocate for their preferences at the delivery. Keep in mind that whomever parents discuss this topic with prenatally is not necessarily the same person who will be attending the birth.

Mixed Management Option. Further study is needed on the "mixed management option" based on the mother's risk factors. A mixed management approach might be most beneficial for someone with a high-risk birth. For example, for someone with low iron, one option might look like this: IM Pitocin immediately following the birth to decrease the chance of hemorrhage (active management), delayed cord clamping to allow the baby to receive his/her full blood volume from the placenta (expectant management), and careful cord traction once the cord is done pulsing (mild active management).

Keep in Mind. Medical interventions that interfere with the body's natural oxytocin release may reduce the effectiveness of the normal physiological process (i.e., oxytocin release can be inhibited by anxiety and excess adrenaline, oxytocin augmentation in labor, and administration of epidural or narcotic analgesia). This should be taken into consideration by women preferring an expectant management approach.

Delayed Cord Clamping. In a post on Lamaze International's *Science and Sensibility* blog, pediatrician Dr. Mark Sloan examines common objections to delayed cord clamping and what the evidence says about its benefits. Dr. Sloan concludes, "*The evidence of benefit from delayed cord clamping is so compelling that the burden of proof must now lie with those who wish to continue the practice of immediate clamping, rather than with those who prefer—as nature intended—to wait."*

Prevent Anemia. If active management of third stage is promoted as a benefit to anemic mothers (those with low blood levels of iron who might suffer more from even a normal blood loss at their birth), then let's become as proactive as possible about preventing and treating anemia prior to the birth through proper nutrition and supplementation.

The Midwifery Model of Care. I believe routine active management of the third stage of labor is inconsistent with the Midwifery Model of Care [www.cfmidwifery.org]. It violates the basic tenet of respect for the birth process as it unfolds uniquely, as well as the belief that birth is a normal life process for which women's bodies are well designed. This is to be distinguished from the medical model approach wherein birth is viewed as an emergency waiting to happen and interference with the normal process is common.