



POSITION STATEMENT

Appropriate Use of Technology in Childbirth

The American College of Nurse-Midwives (ACNM) maintains that every individual has the right to safe, satisfying health care that accommodates human and cultural variations and that the normal processes of pregnancy, labor, and birth can be enhanced through education, health care, and supportive intervention.¹ The practice of midwifery encourages continuity of care; emphasizes safe, evidence-based, competent clinical management; advocates for non-intervention in normal processes; promotes health education for women throughout the childbearing cycle; and supports women as partners in health care choices.²

In order to achieve these goals, ACNM supports

- The availability and provision of non-technological interventions for comfort in labor for all women, such as continuous labor support and water immersion, that have demonstrated efficacy and safety.⁴
- Appropriate use of technological interventions when the benefits of such technology outweigh the risks and when the intervention is warranted to improve the health and/or well-being of the woman and/or infant.
- A framework wherein use of technology is based on evidence of benefit. Often however, there is a lack of evidence in favor of or against the use of certain procedures. In these circumstances, judicious use of technology should be based on assessment of individual benefits and risks using shared decision making with women and families.³
- Fully informed decision-making about the use of technology, during which the benefits, risks and alternatives are clearly explained to the woman.
- Use of socially and culturally appropriate interventions at every opportunity.

Background

Medical technology is defined as any application of science to health issues, including but not limited to laboratory tests, imaging, medication, and surgical intervention.⁵ The widespread use of technology is a major contributor to the rising cost of health care.⁵ Currently, the United States has the highest cost of birth worldwide.⁶ While necessary intervention should not be withheld simply because of cost, the certified nurse-midwife/certified midwife (CNM®/CM®) should be cognizant of these costs and avoid the use of unnecessary technologic intervention when there is no demonstrated benefit.

CNM/CMs should be aware of the current evidence or lack thereof regarding the technology they use. Routine use of technology during labor, such as continuous electronic fetal monitoring or induction of labor for a woman with an uncomplicated pregnancy, has not been shown to improve outcomes and is associated with an increased incidence of further intervention such as cesarean.^{7,8} The use of technology should be evidence-based, and technology should not be used in an attempt to avoid litigation. Further, the practice of defensive medicine does not reduce the risk of liability and may actually increase untoward outcomes.⁹

Practices of care and use of technology may be influenced by a woman's preferences, and in the absence of clear evidence for use or avoidance of a certain intervention, a woman's choice should prevail. For example, if a woman desires epidural analgesia, additional intervention with technology such as continuous fetal monitoring may be necessary to assure safety.¹⁰ Additionally, place of birth (home, birth center, or hospital) in part influences the availability and use of technology during labor and birth.¹¹

ACNM recognizes the role of the CNM/CM as a member of the collaborative health care team that cares for women at all levels of risk and supports the provision of midwifery care for all women in conjunction with appropriate use of technology.

REFERENCES

1. American College of Nurse Midwives. Philosophy of the American College of Nurse-Midwives. <http://www.midwife.org/index.asp?bid=59&cat=2&button=Search&rec=49>. Revised September 2004. Accessed April 19, 2014.
2. American College of Nurse-Midwives, Midwives Alliance of North America, National Association of Certified Professional Midwives. Supporting healthy and normal physiologic childbirth: a consensus statement by ACNM, MANA, and NACPM. <http://www.midwife.org/ACNM/files/ccLibraryFiles/Filename/000000002179/Physiological%20Birth%20Consensus%20Statement-%20FINAL%20May%202018%202012%20FINAL.pdf>. Released May 14, 2012. Accessed April 19, 2014.
3. Nieuwenhuijze M, Low LK. Facilitating women's choice in maternity care. *J Clin Ethics*. 2013;24(3):276-282.
4. Hodnett ED, Gates S, Hofmeyr GJ, Sakala C. Continuous support for women during childbirth. *Cochrane Database Syst Rev*. 2013;7:CD003766.
5. Centers for Disease Control and Prevention. Health, United States, 2009 with special feature on medical technology. [http://www.cdc.gov/nchs/data/09.pdf](http://www.cdc.gov/nchs/data/hus/09.pdf). Published January 2010. Accessed April 19, 2014.
6. Truven Health Analytics. The cost of having a baby in the United States. Truven Health Analytics Marketscan® study. <http://transform.childbirthconnection.org/wp-content/uploads/2013/01/Cost-of-Having-a-Baby1.pdf>. Published January 2013. Accessed April 19, 2014.
7. Alfirevic Z, Devane D, Gyte GM. Continuous cardiotocography (CTG) as a form of electronic fetal monitoring (EFM) for fetal assessment during labour. *Cochrane Database Syst Rev*. 2013;5:CD006066.
8. American College of Obstetricians and Gynecologists, Society for Maternal Fetal Medicine. Obstetric care consensus: safe prevention of the primary cesarean

delivery <http://www.acog.org/~media/Obstetric%20Care%20Consensus%20Series/oc001.pdf?dmc=1&ts=20140312T0956274997>. Published March 2014. Accessed April 19, 2014.

9. Sartwelle TP. Electronic fetal monitoring: a defense lawyers view. *Rev Obstet Gynecol.* 2012;5(3-4):e121-e125.
10. Osterman MJ, Martin JA. Epidural and spinal anesthesia use during labor: 27 state reporting area, 2008. *Natl Vital Stat Rep.* 2011;59(5):1-13,16.
11. Cook E, Avery M, Frisvold M. Formulating evidence-based guidelines for certified nurse-midwives and certified midwives attending home births. *J Midwifery Womens Health.* 2014;59(2):153-159.

Note. Midwifery as used throughout this document refers to the education and practice of certified nurse-midwives (CNMs) and certified midwives (CMs) who have been certified by the American College of Nurse-Midwives (ACNM) or the American Midwifery Certification Board, Inc. (AMCB).

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