



Don't Statement:

Don't automatically initiate continuous electronic fetal heart rate (FHR) monitoring during labor for women without risk factors; consider intermittent auscultation (IA) first.

Statement of Rationale:

Continuous electronic FHR monitoring has been associated with an increase in cesarean and instrumental births, and therefore costs, without an associated improvement in perinatal outcomes. Systematic reviews and meta-analyses indicate that evidence does not support routine use of continuous electronic FHR monitoring among women with a low-risk pregnancy. Intermittent FHR auscultation (IA) by a competent nurse, midwife or physician is preferable for this population. IA allows women more freedom of movement during labor which may improve outcomes.

Background:

The purpose of fetal heart rate monitoring is to identify evidence of fetal well being and oxygenation during labor and then appropriately intervene to reduce the incidence of poor neonatal outcomes. The fetal heart rate may be monitored using continuous electronic FHR monitoring (EFM) components (external cardiotocography (CTG) or internal device) or auscultated intermittently. It is generally advised that the fetal heart rate be monitored during labor by a competent clinician. Over time, continuous FHR monitoring has become a routine practice, including for women at low risk of adverse outcomes, and is used throughout labor in many hospital birth settings.

Evidence:

- The evidence does not support routine use of antenatal EFM for low-risk pregnant women (Gaikwad, 2013; Devane et al., 2012). Continuous EFM is indicated at any sign of interruption in fetal oxygenation, initiation of new bleeding during labor, use of oxytocin, maternal pyrexia, or by maternal request (Gaikwad, 2013).
- Continuous EFM does not lead to improvement in Apgar score, NICU admission, or intrapartum fetal death (Creedon et al., 2013).
- Women should be made aware of the potential for reduction in their mobility due to continuous EFM (Gaikwad, 2013).
- IA allows women more freedom of movement during labor, which can enhance women's ability to cope with labor pain and better utilize gravity to promote labor progress. Upright positions and walking have been associated with shorter duration of first stage labor, fewer cesareans, and reduced use of epidural analgesia (Lawrence, Lewis, Hofmeyr & Styles, 2013).
- Researchers have not found continuous CTG to improve the perinatal death rate or reduce the cerebral palsy rate; although the rate of neonatal seizures at birth was found to be decreased by half, the difference did not persist when children were followed up at 4 years of age. Cesarean birth rates were increased by 63% and instrumental vaginal births by 15% with continuous CTG. Findings were consistent across subgroups of low- and high-risk women and those with preterm pregnancies (ACNM, 2010; Alfirovic, Devane, & Gyte, 2013; Grant, O'Brien, & Joy, 1989).
- American College of Nurse-Midwives (ACNM), Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN), American Association of Pediatrics (AAP), and American College of Obstetricians and Gynecologists (ACOG) recommend evaluating FHR every 15-30 minutes during first stage labor

and every 5-15 minutes during second stage labor for women without risk factors. When there are risk factors (including the use of oxytocin), FHR should be evaluated every 15 minutes in first stage labor, and every 5 minutes during second stage (ACNM, 2010; AWHONN, 2008; AAP & ACOG, 2012).

- Consumer reports includes continuous EFM as one of 10 procedures for women to avoid in pregnancy. <http://www.consumerreports.org/cro/2012/05/what-to-reject-when-you-re-expecting/index.htm>
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Lawrence, A., Lewis, L., Hofmeyr, G. J., Styles, C. (2013). Maternal positions and mobility during first stage labour. *Cochrane Database of Systematic Reviews*, 10, CD003934.

Resources:

American College of Nurse-Midwives. Resources for promoting physiologic birth including promoting progress in first stage labor. <http://birthtools.org/>

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Consumer Reports. What to reject when you are expecting: Top 10 procedures to think twice about during your pregnancy. <http://www.consumerreports.org/cro/2012/05/what-to-reject-when-you-re-expecting/index.htm> Last updated May 2014.