



Promoting Primary Vaginal Deliveries Initiative

Intermittent Auscultation for Low Risk Women

PROVIDE Collaborative Session Webinar

Partnering to Improve Health Care Quality
for Mothers and Babies



Welcome!

- **Please join by telephone to enter your Audio PIN on your phone or we will be unable to un-mute you for discussion.**
- If you have a question, please enter it in the Question box or Raise your hand to be un-muted.
- This webinar is being recorded.
- Please provide feedback on our post-webinar survey.

Agenda

May 10, 2018

Announcements

Intermittent Auscultation for Low Risk Women

 Dr. Jessica Brumley and Frances Manali RN

Q&A



**Provide Data Questions?
Contact Estefania Rubio at:**

erubio1@health.usf.edu

(813)458-1284

Partnering to Improve Health Care Quality
for Mothers and Babies



Are Your Hospital's Birth Certificates Accurate?

Did you know that inaccurate or incomplete birth certificate data significantly impacts the health and healthcare of Florida's mothers and babies?

Want to make a difference?

You are invited to improve birth certificate accuracy in your hospital by joining the Birth Certificate Initiative (BCI) at no cost to your hospital!

To join, hospitals will need to complete an online application and return a commitment letter.

Please visit

<http://health.usf.edu/publichealth/chiles/fpqc/bci>

for more information. **Deadline is June 15.**

SAVE THE DATE

PROVIDE MID-PROJECT MEETING

SEPTEMBER 21, 2018

9 AM – 4 PM

SECOND HARVEST FOOD BANK

ORLANDO



Partnering to Improve Health Care Quality
for Mothers and Babies

Jessica Brumley CNM, PhD and Francis Manail RN

Intermittent Auscultation for Low Risk Laboring Women



Intermittent Fetal Monitoring

A strategy for change implementation

Partnering to Improve Health Care Quality
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Session Objectives

- Review FPQC/CMQCC/ACOG/SMFM/AWHONN/ACNM recommendations on fetal monitoring/fetal heart rate concern
- Review evidence for intermittent monitoring, intermittent auscultation
- Review appropriate parameters for intermittent fetal heart rate auscultation.
- Review documentation of the results of intermittent fetal heart rate auscultation
- Discuss appropriate patient teaching regarding intermittent fetal heart rate auscultation to patient and family

Acronyms

- 👶 CEFM: Continuous Electronic Fetal Monitoring
- 👶 IA: Intermittent Auscultation
- 👶 IFM: Intermittent Fetal Monitoring

RECOGNITION AND PREVENTION

Every patient

- Implement standardized admission criteria, triage management, education, and support for women presenting in spontaneous labor.
- Offer standardized techniques of pain management and comfort measures that promote labor progress and prevent dysfunctional labor.
- Use standardized methods in the assessment of the fetal heart rate status, including interpretation, documentation using NICHD terminology, and encourage methods that promote freedom of movement.
- Adopt protocols for timely identification of specific problems, such as herpes and breech presentation, for patients who can benefit from proactive intervention before labor to reduce the risk for cesarean birth.



Table 7. Barriers to Supporting Intended Vaginal Birth

Recognition and Prevention: Barriers to Supporting Intended Vaginal Birth

1. Lack of institutional support for the safe reduction of routine obstetric interventions
2. Admission in latent (early) labor without a medical indication
3. Inadequate labor support
4. Few choices to manage pain and improve coping during labor
5. Overuse of continuous fetal monitoring in low-risk women
6. Underutilization of the current treatment and prevention guidelines for potentially modifiable conditions (e.g. breech presentation and recurrent genital herpes simplex virus)

ELECTRONIC FETAL MONITORING IS THE MOST COMMON OB INTERVENTION!

Transforming Maternity Care

A Toolkit to Support Vaginal Birth and Reduce Primary Cesareans

FPQC Recommended Key Practices

1. Improve access to and promote quality childbirth education, informed consent, and shared decision making
2. Implement institutional policies that uphold best practices in obstetrics, safely reduce routine interventions in low-risk women, and consistently support vaginal birth
3. Educate nurses and providers on intermittent auscultation/EFM and implement intermittent monitoring for low-risk women
4. Educate nurses on labor support skills that promote labor progress, labor support, pain management

Why Intermittent Auscultation?

Intermittent Auscultation, for low risk women, is considered safe and is evidenced based.

- Promotes freedom of movement
- Promotes hands-on nursing care (1:1 support)
- Non-Invasive technique with comparable outcomes to those monitored with EFM

ACOG Practice Bulletin 106 and AWHONN Fetal Heart Monitoring Principles and Practice

Background

CMQCC

- 🌀 Fetal heart monitoring is an essential part of monitoring the wellbeing of the fetus during labor to detect any abnormalities which may indicate intolerance of labor, so that interventions could be performed in a timely manner to prevent fetal or maternal injury or death
- 🌀 Intermittent Auscultation is the oldest method of fetal monitoring, having been utilized since the 1800s
- 🌀 Electronic Fetal Heart Monitoring developed in 1950's
 - 1970's used nationwide in hospitals
 - 1980 nearly 50% of all labors
 - 1990's 60-75% of all labors
 - 2000's 85% or more

The problem with EFM is...

- Over use in low-risk women
- Over reliance on a poor screening tool
- 99% false positive rate for predicting Cerebral Palsy
- Low reliability (little consensus among interpreters) and low validity (poor detector of IP asphyxia)
- Increased rate of interventions with significant increase in morbidity and mortality for women and babies
- Can contribute to significantly more difficulty in legal cases second to interpretation disputes
 - Only 50% of labors will have a completely normal strip throughout

Evidence

In a 2013 Cochrane Analysis (13 RCT's, n>37,000), researchers compared EFM to IA and found that EFM resulted in

- Increased Cesarean**
- Increased Operative Vaginal Deliveries**
- No difference in perinatal mortality**
- No difference in Cerebral Palsy**
- No difference in Apgars <7 at 5 minutes**
- CEFM was associated with 50% decrease in neonatal seizure but no difference in longterm outcomes.**

Expert Opinion: Intermittent Auscultation

“Given that the available data do not show a clear benefit for the use of EFM over IA, either option is acceptable in a patient without complications.” – ACOG

IA allows women more mobility, which in turn increases comfort and progress of labor. – ACNM

“A woman’s preferences and clinical presentation should guide selection of FHM techniques with consideration given to use of the least invasive methods.” – AWHONN

Continuous Fetal Monitoring

- **Benefits**
 - Can identify early signs of developing hypoxia
 - Allows closer monitoring of high risk patients
 - Excellent predictor of a normally oxygenated fetus
 - Records FHR and UCs simultaneously
- **Limitations**
 - High rate of false positives leading to increased interventions...C/S, etc... without better outcomes
 - No agreement regarding timing of intervention
 - Expensive
 - Poor reliability/validity

}

Intermittent Auscultation

- Benefits
 - Evidence-based practice
 - Lower rates of C/S, operative delivery and related morbidities/mortalities for mom and baby
 - Increased mobility for mother...can ambulate, hydrotherapy, more comfortable
 - Decrease use of analgesia/anesthesia
 - Fosters more continuous labor support
 - Focus on mother not machine
 - Facilitates alternative birth positions

Intermittent Auscultation

- Limitations
 - Frequency of auscultation is lacking evidence but agreed upon
 - Could miss an acute and sustained bradycardia (rare)
 - Difficult to assess variability
 - Periodicity of decelerations cannot be determined
 - Attention to staffing matrix
 - Requires unit education, commitment and support for sustained use
 - In one study of a hospital who sig decreased their EFM usage had no change in nurses' time spent providing labor support, not more labor intensive when factoring in time spent collecting and analyzing EFM, staffing costs not higher, but would be offset by sig improvement in outcomes and patient satisfaction
 - No permanent record of FHR (could be good or bad)

IA vs IFM?

- 👶 Intermittent Auscultation is the standard of care for low risk women internationally.
- 👶 IFM vs CEFM are equivalent.
- 👶 The evidence supports IA over CEFM.
- 👶 No studies have compared IA to IFM.

We want you to have choices.

- 👶 If IFM is where you can start, then start there.
- 👶 Small changes can create culture change.
- 👶 IFM may create comfort with and lead to IA.

Planning Change

- 👤 Create a standard protocol
- 👤 Implement initial and ongoing training for staff and providers.
- 👤 Develop or borrow patient education
- 👤 Problem solve staffing needs
- 👤 Make IFM the norm for low risk women.

Model Policies available in toolbox.

Last Reviewed -4/16

TAMPA GENERAL HOSPITAL PATIENT SERVICES	DEPARTMENT: Women's and Children's - Protocol MANUAL: OB Suite Standards Manual
SUBJECT: Intermittent Auscultation of the Fetal Heart Rate	MANUAL CODE: 1-1 PAGE: 1 of 5
ISSUED BY: Patient Services	EFFECTIVE: 4/16 REVISED:
APPROVED BY: Sherri Badia, RN, Nurse Manager, OB Suite Pam Sanders, Vice President, Women and Children	<i>Sherri Badia 5-2-16</i> <i>Pam Sanders 4/16</i>

PURPOSE: To describe the technique for intermittent auscultation (IA) of the fetal heart rate (FHR), identify the appropriate patient for IA and define criteria for continuation and discontinuation of IA.

DEFINITION: Intermittent auscultation with doppler is a tool for surveillance of the FHR during labor. With regard to neonatal outcomes, evidence from numerous randomized controlled trials has demonstrated IA and continuous external fetal monitoring (CEFM) are equivalent methods of Intrapartum fetal surveillance. IA offers many benefits to the laboring woman including comfort, freedom of movement, hydrotherapy, non-traditional and out of bed positioning for labor and second stage. IA additionally confers the benefit of decreased cesarean sections, operative vaginal delivery and increased patient satisfaction.

RESPONSIBILITY: Labor and Delivery Nursing
Certified Nurse Midwives
Obstetrics and Gynecology Attending and Resident Physicians

I. INCLUSION / EXCLUSION CRITERIA

A. Inclusion:

1. Gestational age 36 weeks or greater
2. Vertex presentations
3. Singleton pregnancy
4. Fetal heart rate tracing upon admission (including L&D triage) of at least 20 minutes with normal baseline rate and rhythm, presence of moderate variability (6-25 bpm). Category 1

B. Exclusion:

1. Maternal contraindications:
 - a. Preeclampsia
 - b. Chronic uncontrolled HTN
 - c. Gestational Hypertension requiring antihypertensive therapy or evidence of growth restriction
 - d. Diabetes requiring medication

Identify appropriate patients.

- **Low Risk Laboring patients**
 - Reassuring FHR tracing on admission
 - Gestation 36 weeks or greater
 - Vertex presentation
 - Singleton pregnancies
 - No Maternal/Fetal exclusionary factors per your department standard.
 - No Intrapartum risk factors per your department standard

Policies should list exclusions

- 👤 Exclusions should focus on conditions associated with uteroplacental insufficiency and/or conditions associated with cord pH < 7.1 at birth.

**SOGC IA
Exclusion
Criteria**

Table 12. Antenatal and intrapartum conditions associated with increased risk of adverse fetal outcome* where intrapartum electronic fetal surveillance may be beneficial

Antenatal	
Maternal	<ul style="list-style-type: none"> Hypertensive disorders of pregnancy Pre-existing diabetes mellitus/Gestational diabetes Antepartum hemorrhage Maternal medical disease: cardiac, anemia, hyperthyroidism, vascular disease and renal disease Maternal MVA/trauma Morbid obesity
Fetal	<ul style="list-style-type: none"> Intrauterine growth restriction Prematurity Oligohydramnios Abnormal umbilical artery Doppler velocimetry Isoimmunization Multiple pregnancy Breech presentation
Intrapartum	
Maternal	<ul style="list-style-type: none"> Vaginal bleeding in labour Intrauterine infection/chorioamnionitis Previous Caesarean section Prolonged membrane rupture > 24 hours at term Induced labour Augmented labour Hypertonic uterus Preterm labour
Fetal	<ul style="list-style-type: none"> Post-term pregnancy (> 42 weeks) Meconium staining of the amniotic fluid Abnormal fetal heart rate on auscultation

*Adverse fetal outcome: cerebral palsy, neonatal encephalopathy, and perinatal death.
Adapted from RCOG Evidence-based Clinical Guideline Number 8, May 2001. The use of electronic fetal monitoring.⁷

Society of Obstetricians & Gynaecologists

Disagreement on some exclusion criteria will require department consensus.

- 👶 Meconium
- 👶 Oligohydramnios
- 👶 Misoprostol
- 👶 Narcotics
- 👶 Prolonged rupture of membranes without chorioamnionitis.



Sample Decision Support Tool - SOCG **CMQCC**

JOGC Journal of Obstetrics and Gynecology Canada
The official voice of reproductive health care in Canada
Le porte-parole officiel des soins gynécologiques au Canada
Journal d'obstétrique et gynécologie du Canada

Volume 33, Number 3 • Volume 33, Number 3 September • septembre 2007 Supplement 4 • supplément 4

Fetal Health Surveillance: Antepartum and Intrapartum Consensus Guideline

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Robert Lister, Dawn Sawchuk, David Young

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Antenatal Fetal Surveillance 59

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Intrapartum Fetal Surveillance 525

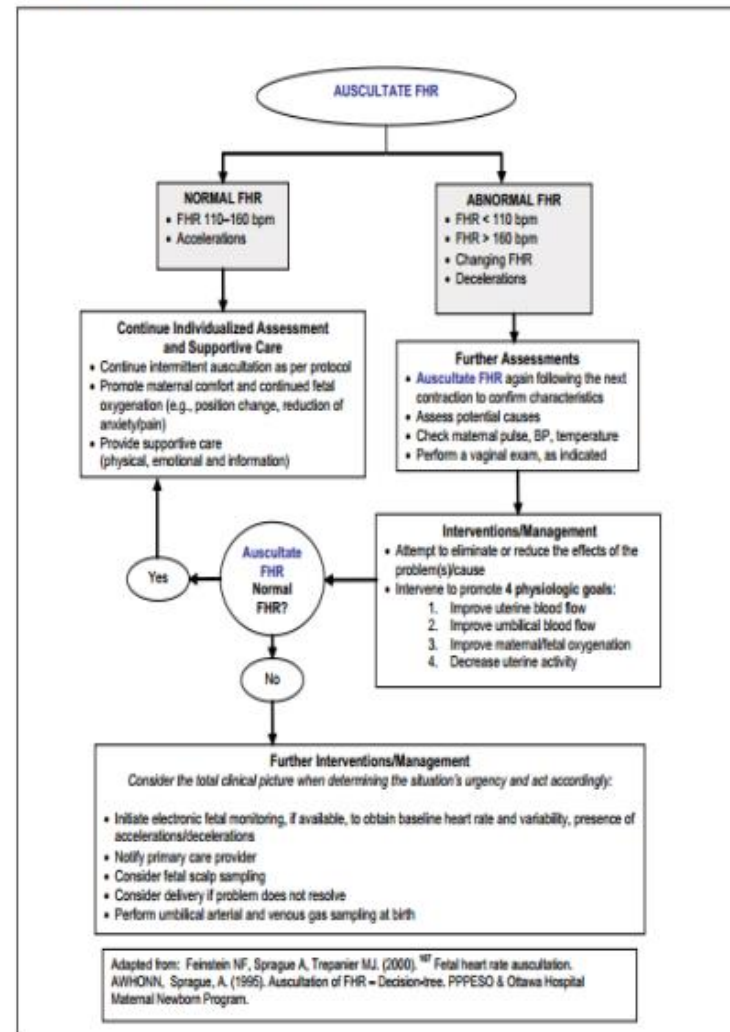
Chapter 3:
Maintaining Standards in Antenatal and Intrapartum Fetal Surveillance: Quality Improvement and Risk Management 545

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THE SOCIETY OF OBSTETRICIANS AND GYNAECOLOGISTS OF CANADA
LA SOCIÉTÉ DES OBSTÉTRICIENS ET GYNÉCOLOGUES DU CANADA

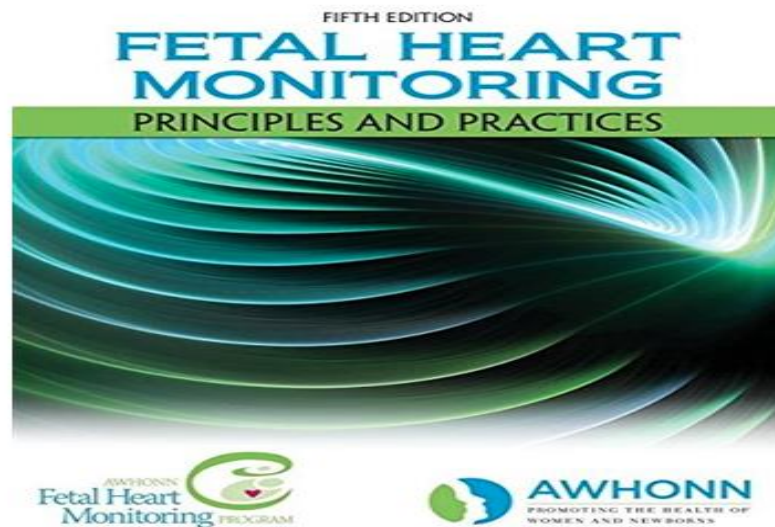
Publications mailing agreement: #10524333 Revue en ligne disponible
Ces listes d'adresses et de changements d'adresse sont fournies à SOGC
Subscription Services, 390 John D. Ottawa, Ontario K1S 0J7.

Figure 7. Decision support tool—intermittent auscultation in labour for healthy term women without risk factors for adverse perinatal outcome



Training

- 👶 AWHONN FHR Principle & Practice 5th ed.
- 👶 <https://www.awhonn.org/store/ViewProduct.aspx?id=5035284>



Training

ACNM Birth Tools

 <http://birthtools.org/MOC-Assessing-Fetal-Well-Being-TOOLBOX>

Clinical Education/Staff Training Resources



UMMC IA training video

This video, developed by a DNP student at the University of Minnesota Medical Center, walks through the proper steps of performing intermittent auscultation safely.



Doppler IA Pack

This photo is an example of a "Doppler IA Pack" used by Highland Hospital, including laminated "cheat sheets" to assist nursing staff with utilizing intermittent auscultation.



Safe Beginnings: Implementing IA as the Standard for Low-Risk Women

This presentation reviews the process of implementing intermittent auscultation as the standard for low-risk women to decrease the primary cesarean rate in a hospital setting.



Making IA the Norm in the Hospital Setting

Moving Evidence Into Practice: Making Intermittent Auscultation the Norm in the Hospital Setting, presented by staff CNMs from Oregon Health & Science University at the presented at ACNM's 59th Annual Meeting. A PDF of the presentation with notes.

[Close](#)

Employee Name:		Job Title:		
Pre-requisition:		Unit:		
Target Audience: L&D staff to ensure appropriate knowledge level and skill with use of Auscultation during the labor process.				
Competency Statement: RN's will accurately implement and document Fetal heart rate Auscultation				
Reason(s) for Assessment:	<input type="checkbox"/> ↑ Risk-↑ volume <input type="checkbox"/> ↓ Risk-↑ volume <input checked="" type="checkbox"/> ↑ Risk-↓ volume <input checked="" type="checkbox"/> New Equipment	<input type="checkbox"/> Age related <input type="checkbox"/> Regulatory <input checked="" type="checkbox"/> Safety	<input checked="" type="checkbox"/> Patient Satisfaction <input type="checkbox"/> Infection Control <input checked="" type="checkbox"/> Quality-Related	
		<input type="checkbox"/> Learner's needs <input type="checkbox"/> Policy change <input type="checkbox"/> Performance issue	<input type="checkbox"/> New scope of practice <input checked="" type="checkbox"/> Professional development <input type="checkbox"/> Others:	
Recommended Validation Methods:	<input checked="" type="checkbox"/> Direct observation of actual behaviors in work environment <input type="checkbox"/> Indirect observation through superiors, peer reports, document reviews		<input checked="" type="checkbox"/> Direct Observation of Auscultation techniques <input type="checkbox"/> Documented results, Oral or written	
Skill Set:	<input checked="" type="checkbox"/> Critical Thinking	<input checked="" type="checkbox"/> Technical Skills	<input checked="" type="checkbox"/> Interpersonal Skills	
Reference(s):	<input checked="" type="checkbox"/> TGH Policy & Procedure Manual <input type="checkbox"/> Medical Records	<input checked="" type="checkbox"/> Professional Organization's Standards Manual <input type="checkbox"/> Regulatory Agency Guidelines	<input type="checkbox"/> Others:	
Demonstrated Behavior			Assessment Date	
			Met	* Not Met
<ul style="list-style-type: none"> ➤ Prepare for Auscultation ➤ Perform Leopold's maneuvers to assist in optimal placement of auscultation device. ➤ Assess uterine activity for onset, duration, and frequency of contractions. ➤ Determine maternal pulse. ➤ Place Doppler or US electronic fetal monitor over fetal back or chest. ➤ Determine baseline fetal heart rate by listening for 60 seconds-2minutes between contractions. Palpate maternal pulse each time auscultation performed in order to differentiate maternal from fetal heart rate. Note and document palpable fetal movement ➤ Assess fetal heart rate during a uterine contraction and for 60 seconds after a uterine contraction in order to assess fetal response to the uterine contractions (UC). 				

SHOULD YOUR PATIENT HAVE

INTERMITTENT AUSCULTATION??

- ✓ Spontaneous labor
- ✓ 36 weeks or greater
- ✓ Singleton gestation
- ✓ Nitrous oxide
- ✓ IV Pain medicine
- ✓ ROM
- ✓ Cervical Ripening Balloon

- ~~Pitocin~~
- ~~Magnesium Sulfate~~
- ~~Epidural~~
- ~~Cervidil (OK once removed)~~
- ~~Cytotec (OK after 4 hours unless inserting a new one)~~
- ~~Thick meconium~~
- ~~Chorioamnionitis~~

Maternal Contraindications:

- Preeclampsia, chronic uncontrolled HTN, gestational hypertension requiring antihypertensive therapy or evidence of growth restriction
 - Diabetes requiring medication
- Previous cesarean in active labor or history of other significant uterine surgery
 - Suspected placenta abruption or placenta previa
 - History of or current significant cardiac disorders
 - Cigarette smoker greater than 1 pack per day
 - Current Illicit drug use
 - Active respiratory infections or systemic illness
 - Other severe medical condition

Fetal Contraindications:

- IUGR
- ~~Isimmunization~~
- Major anomalies unless decided upon by OB team
 - In utero infections (TORCH infections)



Toolkit Recommendation: Patient Education

Provide patient education for the use of intermittent methods of monitoring and engage in shared decision making in order to determine the most appropriate method for each patient

Figure 4. Essential Elements of Shared Decision Making. Two Examples for Clinical Practice

The SHARE Model



The SHARE approach. Agency for Healthcare Research and Quality Website. <http://www.ahrq.gov/professionals/education/sr/curriculum-tools/shareddecisionmaking/index.html>. Accessed December 1, 2015.

 **Choosing Wisely**[®]

An initiative of the ABIM Foundation

ConsumerReportsHealth



Monitoring your baby's heartbeat during labor

There are two ways to do it, and most women have a choice



Shared Decision-Making

Figure 4. Essential Elements of Shared Decision Making, Two Examples for Clinical Practice (Continued)

1 Choice Talk

- Let the patient know she has a choice
- Let the patient know her preferences matter
- Reiterate that the risks and benefits of various reasonable options will need to be weighed

3 Options Talk

- Review all options, including the option of doing nothing, and the risks and benefits of each

3 Decision Talk

- Incorporate the patient's personal values and preferences
- Arrive at a decision grounded in best evidence available

This process could be accomplished during one encounter or may require a multi-step process during separate conversations (may not need to be entirely face-to-face). Certain portions of the discussion may require decision aids.

Somano, A. Activation, engagement, and shared decision making in maternity care. http://maternityneighborhood.com/whitepapers/activation-engagement-shared-decision-making_MaternityNeighborhood. Published September 2015. Accessed February 7, 2018. Used with permission from the author.

Table 4. Patient Decision Points that Impact Risk of Cesarean⁸⁰⁻⁸⁶

PATIENT DECISION POINTS THAT IMPACT RISK OF CESAREAN
Choice of provider and/or facility for prenatal care and care at time of birth
Timing of admission to hospital (admission to labor and delivery while still in the latent/early phase is associated with an increased risk of cesarean)
Choice of fetal monitoring method (continuous monitoring is associated with an increased risk of cesarean)
Whether to have continuous labor support by a trained caregiver like a doula (continuous labor support improves chances of having a vaginal birth)
Induction of labor without medical indication (depending on the provider and facility, induced labor may be associated with higher rates of cesarean)

Patient Education

1. Evidence-Based Fetal Monitoring:

<https://evidencebasedbirth.com/evidence-based-fetal-monitoring/>

2. Continuous Electronic Fetal Monitoring in Labor: For Your Safety... But Is it Always Safe?:

<http://www.givingbirthwithconfidence.org/p/bl/et/blogid=16&blogaid=1236>

3. Electronic Fetal Monitoring:

<http://www.givingbirthwithconfidence.org/p/bl/et/blogid=7&blogaid=1235>

Can Good Intentions Backfire in Labor?

A Closer Look at Continuous Electronic Fetal Monitoring (EFM)

1960s:

Continuous electronic fetal monitoring (EFM) was introduced for high-risk labors¹

1970s:

EFM became a routine part of maternity care²

2000s:

A 2006 survey of new mothers revealed 76% had continuous EFM during labor³

EFM was designed with good intentions, to help diagnose fetal stress during labor and provide early warning of a baby in trouble.

SO DOES CONTINUOUS EFM WORK AS INTENDED



NO. EVIDENCE SHOWS IT:



Does **not** improve well-being of baby⁴



Frequently gives false signals of a baby in trouble



Can restrict mom to bed



EFM records can be confusing, leading to an increased risk of a cesarean delivery

Situations where continuous EFM **may** be recommended:



Labor is induced or sped up with Pitocin



Baby's heart rate changes or shows that more monitoring is needed



You have an epidural



You or your baby have a health problem that makes your birth high-risk

Avoid **unnecessary** EFM:



Find a care provider who doesn't require routine use of continuous EFM



Talk to your care provider about intermittent monitoring with handheld devices, instead of constant electronic monitoring



Ask whether your place of birth offers wireless monitors ("telemetry units")

If your situation requires continuous EFM – here are a few tips:



Go Wireless

Ask to use a wireless telemetry device so you can walk around



Hit Mute

Turn down or turn off the beeping sound if it is distracting to you



Continue to Move

Change positions in and out of bed as much as the EFM wires allow



Hit Pause

Get disconnected for regular bathroom breaks or a shower which can also help manage pain. Even walking a little can help move baby down and out

There's much more to know about safe monitoring during labor. Take a Lamaze class to learn about your options.

PUSH FOR THE SAFEST, HEALTHIEST BIRTH POSSIBLE. VISIT WWW.LAMAZE.ORG/PUSHFORYOURBABY TO LEARN MORE.



ACNM Share with Women

Fetal Heart Rate Monitoring in Labor



What is fetal heart rate monitoring?

Fetal heart rate monitoring is used to check your baby's heart rate when you are in labor. Watching or listening to your baby's heart rate can tell your health care provider how well your baby is doing during labor. Your baby's heart rate may be checked continuously (all the time) or intermittently (off and on). Your provider will use a type of fetal stethoscope called a Doppler or an electronic fetal monitor that can also record your contractions.

Why is fetal heart rate monitoring important?

When your uterus (womb) contracts, the blood flow to your baby slows down during the contraction. Most babies have enough oxygen stored up that they can handle normal labor contractions without any problems. Fetal heart rate monitoring does not tell us for sure that everything is okay, but if your baby is not getting enough oxygen, the fetal heart rate will show certain patterns that your health care provider will watch for.

What types of fetal heart rate monitoring are available?

Intermittent Fetal Heart Rate Monitoring:

A handheld fetal stethoscope, called a Doppler, is used to listen to your baby's heart rate for a couple of minutes every 5 to 30 minutes or so. How often your provider listens depends on what stage of labor you are in and if your provider is concerned about your baby. Your provider will listen while you are having a contraction and for a short time after the contraction ends.

Continuous Fetal Heart Rate Monitoring:

External Fetal Heart Rate Monitoring:

Two plastic discs are placed on your stomach and held in place by straps. They will be connected to an electronic fetal heart rate monitor machine with a cord, or the monitor will be wireless. The monitor provides a continuous recording that shows your baby's heart rate, how often you are having contractions, and how long your contractions are lasting.

Internal Fetal Heart Rate Monitoring:

A small wire is placed through your cervix and attached just under the skin of your baby's scalp. The other end of the wire is attached to a sensor on your leg. This wire is a fetal scalp electrode (FSE). To insert the FSE, your membranes (bag of water) must be broken and your cervix must be open enough, usually at least 2 centimeters dilated.

What are the benefits of intermittent fetal heart rate monitoring?

Intermittent monitoring allows you to move around freely while you are in labor. You can walk, shower, or bathe as much as you want. You can move into any position that is comfortable, which can help you cope with the pain of labor better. Intermittent monitoring may lower your chance of having a cesarean birth. If you are healthy and you have had a normal pregnancy, intermittent monitoring is safe for your baby.

How does the safety of continuous and intermittent fetal heart rate monitoring compare?

A lot of research has been done to compare the safety of both methods of fetal heart rate monitoring. The chance of cerebral palsy or that your baby will die during labor or after birth is the same for both methods. Continuous monitoring slightly decreases the chance your baby will have seizures after birth. Intermittent monitoring significantly decreases the chance you will have a cesarean or assisted vaginal birth using forceps or a vacuum.

Share with Women

Journal of Midwifery & Women's Health

www.sharewithwomen.org

American College of Nurse-Midwives

Why would I need to have continuous fetal heart rate monitoring?

If you have a problem during your pregnancy or labor, you may need continuous fetal heart rate monitoring in order to watch your baby closely. These problems include:

- If you have risks during your pregnancy that suggest your baby may have a higher chance of not having enough oxygen during labor such as you are expecting more than one baby, have preeclampsia, or have diabetes.
- If your baby has extra risks like being smaller than expected, being born early (before 37 weeks of pregnancy), being born late (after 42 weeks of pregnancy), or not having enough amniotic fluid (water) around your baby.
- If you have extra risks during your labor like you are getting Pitocin, you have an epidural, you have large amounts of vaginal bleeding, your amniotic fluid (water) contains meconium (baby poop), your water has been broken for more than 24 hours, you develop a fever, or your baby's heartbeat shows signs that more oxygen or more time between contractions is needed.

Why would I need to have internal fetal heart rate monitoring?

Internal monitors may be used if your provider has concerns about your baby's heart rate and the external monitor cannot record the fetal heart rate well.

What will happen if my provider has concerns about my baby's heart rate while I am in labor?

If your provider has concerns about your baby's heart rate and you are using intermittent monitoring, your provider may recommend continuous monitoring. If you are using external monitoring, your provider may recommend changing to internal monitoring. Oftentimes, simple things like changing your position, giving you IV fluids, or giving you extra oxygen through a facemask may improve your baby's heart rate. If these methods do not help or the heart rate worsens, your provider may not feel it is safe for your baby to continue labor. In this case, a cesarean birth or assisted vaginal birth (using forceps or a vacuum) may be recommended.

Do I have a choice of what type of fetal heart rate monitoring I have while I am in labor?

Different providers and birth settings may have different policies or preferences for what type of fetal heart rate monitoring is standardly used in labor. Most women in the United States have continuous monitoring. You should discuss your fetal heart rate monitoring options with your provider before you go into labor. Many providers will allow you to use intermittent monitoring if you do not have any risk factors and prefer this method.

For More Information

BabyCenter: Fetal Monitoring

http://www.babycenter.com/0_fetal-monitoring_1451559.bc

Johns Hopkins Medicine: External and Internal Heart Rate Monitoring of the Fetus

http://www.hopkinsmedicine.org/healthlibrary/test_procedures/gynecology/external_and_internal_heart_rate_monitoring_of_the_fetus_92,P07776/

YouTube: Fetal Monitoring

<https://www.youtube.com/watch?v=DvcDXvICXAE>

Flesch-Kincaid Grade Level: 10.4

Approved September 2014.

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Staffing Needs

- AHWONN recommends 1:1 staffing during active and second stage.
- Could be an actual or perceived barrier.
- Consider collecting baseline data to provide actual numbers.
- Consider how the unit currently problem solves staffing for other patients requiring 1:1 care.

Make IFM the Norm

- 👶 Make it a standard order
- 👶 Map out a QI plan
 - 👶 Assess readiness (ACNM IA Bundle)

PDSA

Plan:

-  Review evidence with key stakeholders
-  Create policy
-  Train staff

Do:

-  Consider a small trial first

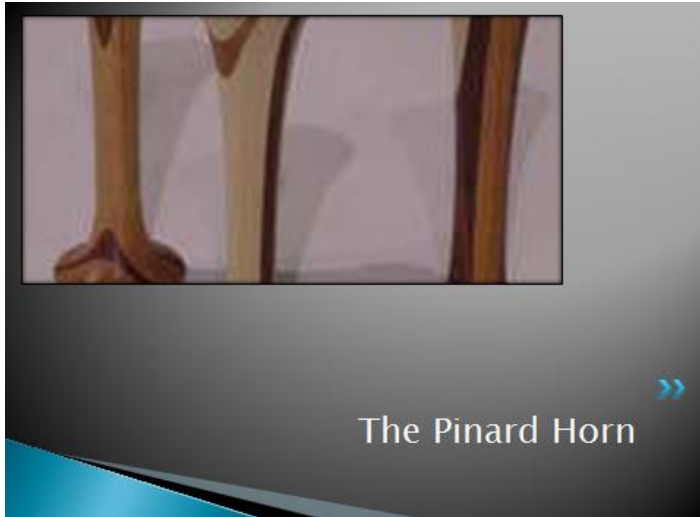
Study:

-  Collect, Analyze and Share/Celebrate your data

Act:

-  Implement on a larger scale
-  Advocate for use on all low risk women

How is it done?



Reassuring Defined

- Normal baseline rate and rhythm
- Moderate variability 6-25 bpm
- Absence of persistent (occurring more than 50% of the time) variable decelerations or late decelerations
- 20 minute strip
- NOTE: Accelerations not required

Technique for performing IA

1. Perform Leopold's maneuvers to identify the fetal presentation and position.
2. Assist the laboring woman into a position that maximizes audibility and preserves comfort.
3. Assess frequency and duration of uterine contractions.
4. Determine the maternal pulse rate.
5. Place the fetoscope or Doppler over the fetal thorax or back.
6. Determine the baseline fetal heart rate by listening between contractions for 30 to 60 seconds and when the fetus is not moving. Verify maternal pulse rate if necessary.
7. Subsequently, count the fetal heart rate starting right after a contraction resolves.
8. Note increases (accelerations) or decreases (decelerations) from the baseline rate by counting and recording the fetal heart rate using a multiple-count strategy agreed upon by practice protocol.

Suggested Auscultation Frequency

	Latent Phase	Active First Stage	Active Second Stage
ACNM		Every 15-30 Minutes	Every 5 minutes
AWHONN		Every 15-30 Minutes	Every 5-15 minutes
ACOG,AAP		Every 15-30 Minutes	Every 5 minutes
RCOG		Every 15	Every 5 minutes
SOGC	At the time of assessment and approximately every 1 hour	Every 15-30 Minutes	Every 15 minutes then every 5 minutes after pushing initiated

(AAP & ACOG, 2007; ACNM, 2007; ACOG 2005;AWHONN, 2009; Feinstein, Sprague & Trepanier,2008; RCOG; SOGC,2007)

When to listen

- Listen Before
 - AROM
 - Administration of narcotics
 - Transfer or discharge
- Listen After
 - SROM/AROM
 - Vaginal Exam
 - Identification of abnormal contraction pattern
 - Identification of abnormal vaginal bleeding

Where to listen

Walking

Standing

In the tub

In the shower

On the ball

On a chair

In a house

With a mouse....

Convert to Continuous EFM

Continuous monitoring if: IP risk factors

- Frank bleeding not bloody show
- Thick meconium
- Maternal fever
- Baseline bradycardia or tachycardia
- Abnormal rhythm
- Persistent decelerations after position changes
- Uterine tachysystole noted
- Acuity of unit
- Severe persistent hypertension or hypotension
- Desires Epidural
- Augmentation with Pitocin

NOTE: May potentially convert back to IA

In case of non-reassuring FHT

- Same as with EFM
 - Increase auscultation
 - Change to EFM until reassured
 - Position change
 - Fluid Bolus
 - Oxygen
 - Notify Provider
 - Document



Documentation Sample



- **0800**

FHR 130-136 bpm via auscultation, regular rhythm. Acceleration to 160bpm. No audible decelerations. Auscultated x120 seconds after UC. Pt ambulating and coping well with UCs. Palpable FM. Maternal pulse 90.

- **0830**

Pt reports UCs getting stronger. Breathing with UCs and coping well. Palpable FM. Maternal pulse 100. FHR auscultated 135 bpm x 60sec before UC. Regular rhythm. Acceleration to 155bpm. Abrupt decrease to 90 bpm following UC. Quick return to baseline. Auscultated x 60 sec after UC. Pt repositioned to left lateral. Increased frequency of auscultation.

Flowsheet Documentation

Additional Documentation			
Fetal Auscultation Assessment			
Fetal Heart Rate Range	125-135		
Fetal Heart Rhythm	regular		
Fetal Heart Increases	heard		
Fetal Heart Decreases	not he...	 	
Fetal Auscultation Category	Categ...		
Uterine Activity Assessment			
Method	palpat...		
Contraction frequency (min)	q 5		
Contraction Duration (sec)	60-80		
Contraction Intensity	moder...		
Uterine Resting Tone	soft b...		

Consider Implementing in Stages

- 👂 If you don't think you can start with IA but can implement IFM, then start there.
- 👂 Getting off the monitor introduces more opportunity for mobility and hydrotherapy.
- 👂 This may also start to change the culture and improve comfort with being off the monitor.

Recommendations

- 👶 Implement IA or IFM as the standard for low risk laboring women.
- 👶 No need to reinvent the wheel. All of these resources are available in the PROVIDE Toolbox.
- 👶 Be a champion for change!



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Q & A

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THANK YOU!

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