Welcome! Please text SK130 to 22333 to join our Poll Everywhere session for full enjoyment of this presentation. (we promise not to put anyone on the spot!)

Low-Risk FHR Monitoring

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What is your role?

RN/Birth Assistant - Home or Birth Center	1
RN - Hospital	2
Provider - Home or Birth Center	3
Provider - Hospital	4
Leadership	5
Doula	6
Other	7

Objectives & Acronyms

- Recall evidence on fetal heart rate (**FHR**) monitoring
- Discuss benefits and limitations of external fetal monitoring (**EFM**) vs intermittent auscultation (**IA**)
- Compare professional guidelines on method and interpretation of IA
- Discuss “sacred cows”; intermittent monitoring (**IM**), admit strip, nursing perception of IA use
- Discuss local efforts in monitoring low-risk clients, including barriers, and successes
- Have a lively conversation!

Brief Historic Context

- In 1970 EFM was introduced and widely launched as a way to decrease rates of cerebral palsy (CP) and fetal death in labor…**without** clinical trials.
- Use of EFM grew rapidly and today around 91% of all labors are currently monitored with EFM
- Evidence suggests up to 45% of low-risk laboring clients could benefit from IA

Ellenberg & Nelson, 2013; Lear, 2016; Sholapurkar, 2015

Regarding CP

- Rates of CP have remained the same (≈one of 500)
- Per ACOG & SMFM 70% of CP cases occur before labor begins. Very few are linked to birth asphyxia.
- False positive rates for CP are >99% (mostly wrong)

VanNaarden Braun, 2016; Ellenberg & Nelson, 2013; ACOG, 2009

Regarding fetal death

- An issue of “n”, >50k people would need to be randomly assigned to EFM or IA to detect a difference
- Stillbirths have been decreasing over time (secular trend)
- Meta-analysis of randomized trials shows no effect on stillbirth or newborn death (n=37k)

Alfirevic, 2017; Decker & Bertone, 2018

Data Comparing IA to EFM

- No significant improvement in overall perinatal death
- No significant difference in CP
- Associated with 50% decrease in neonatal seizures
- Slight increase in instrumental delivery rate
- Significant increase in cesarean birth rates

Martis, 2017; Devane, 2012

Professional Input

"To facilitate the option of intermittent auscultation, obstetrician-gynecologists and other obstetric care providers and facilities should consider adopting protocols and training staff to use a hand-held Doppler device for low-risk women who desire such monitoring during labor." ACOG 2017

"Intermittent auscultation is the preferred method for monitoring low risk women." ACNM, 2016

"Women's preferences and clinical presentation should guide selection of monitoring method, with least invasive method as preferred method." AWHONN, 2015

Routine use of Continuous EFM During Labor is Discouraged by

- Society of Obstetrics and Gynecologists of Canada
- National Institute for Health and Care Excellence in the U.K.
- ACNM
- CMQCC
- USPFTF
- Oprah, Buddha & Jesus

Advice to Clients

- Consumer Reports: *If it's not medically necessary, CFM doesn't reduce the risk of CP, death, or other negative outcomes for your newborn…it does restrict your movement and increases the chance of a cesarean delivery.*

- USPSTF: *Evidence against CEFM is so clear that the US Preventive Services Task force issued a recommendation against use in low risk women.*

What's the Big Deal? Informed Choice!

Non-reassuring FHR is the #2 indication for 1st time cesarean birth!

IA supports:

- Continuous labor support
- Upright positioning
- 2nd stage positional options
- Change in hospital culture to physiologic birth
- Water birth

ACOG/SMFM, 2015

Big Picture

Implement fetal heart monitoring per professional guidelines

- IA as the standard of care for all low-risk patients
- EFM as the “risk-out” option
- Consider how your institution can contribute to national data, building consensus and recommendations

“In the end, using electronic fetal monitoring for everyone is an example of high-tech, high-cost, non-evidence-based care.”

Intermittent Auscultation – Definition

- The FHR is counted for a specified amount of time at specified intervals in relation to uterine contractions
- Utilizes a fetoscope, handheld doppler or pinard horn.
- No visual representation of FHR or permanent record

Fetoscope

Doppler

Pinard

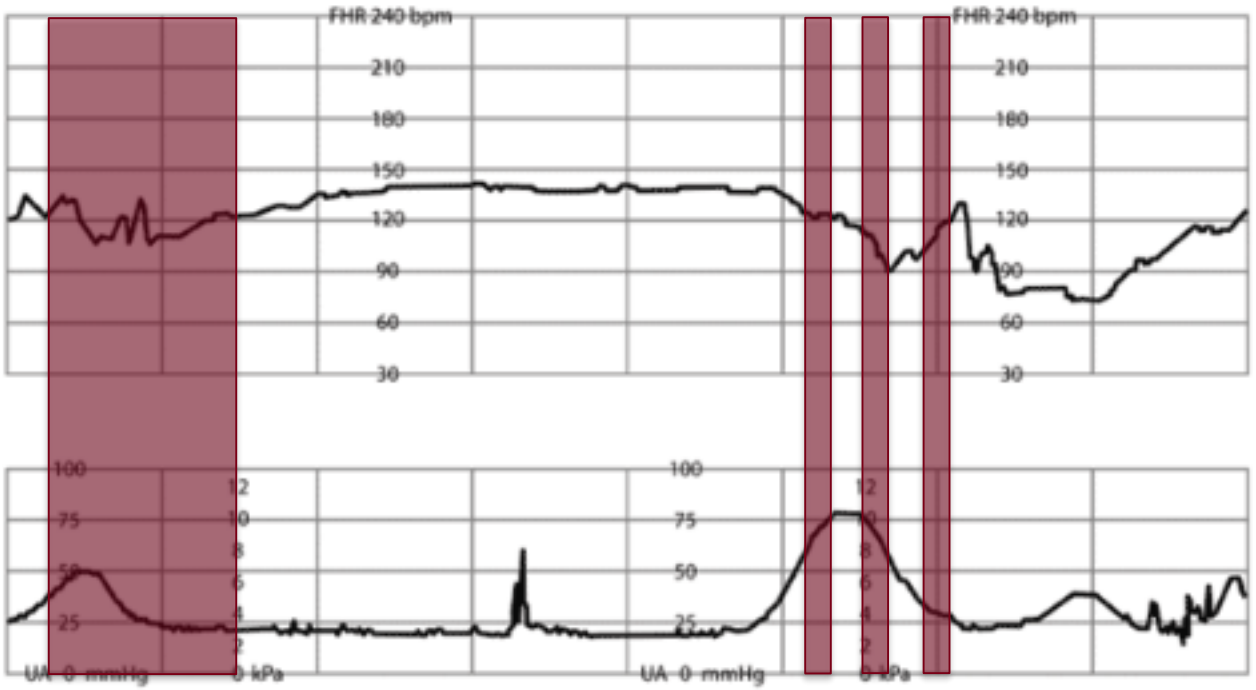
Intermittent Auscultation – Definition Cont.

Recommended IA Intervals by Professional Organizations

	Latent	Active	Second Stage
ACNM		15-30	5
ACOG		30	15
AWHONN		15-30	5-15
SOGC	Approximately every hour	15-30	5

ACNM, 2016

Intermittent Auscultation – Methods



Single Count

Multiple Count

When is IA Appropriate?

IA is only for low-risk patients

- ≥36 weeks gestation
- Singleton fetus
- Vertex presentation
- Category I tracing on admission (if admission strip done)

Exclusions: high-risk patients

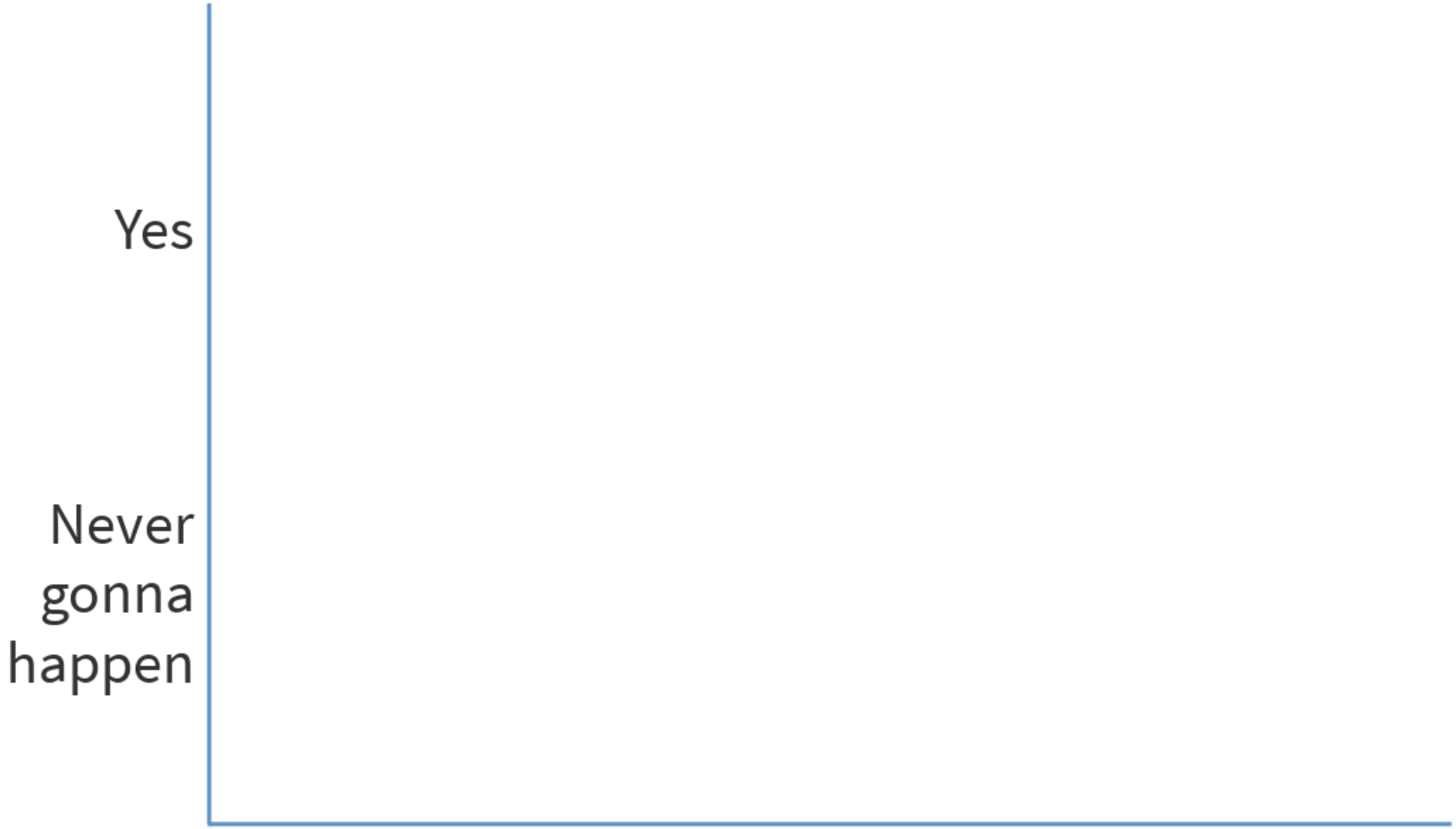
- Maternal, fetal and intrapartum conditions associated with uteroplacental insufficiency and/or conditions associated with cord pH of <7.1 at birth.
- Anytime we intervene: IOL, augmentation, pain management.

Sacred Cows

Do you think the admission strip will EVER go away?

When poll is active, respond at **PollEv.com/sk130**

Text **SK130** to **22333** once to join



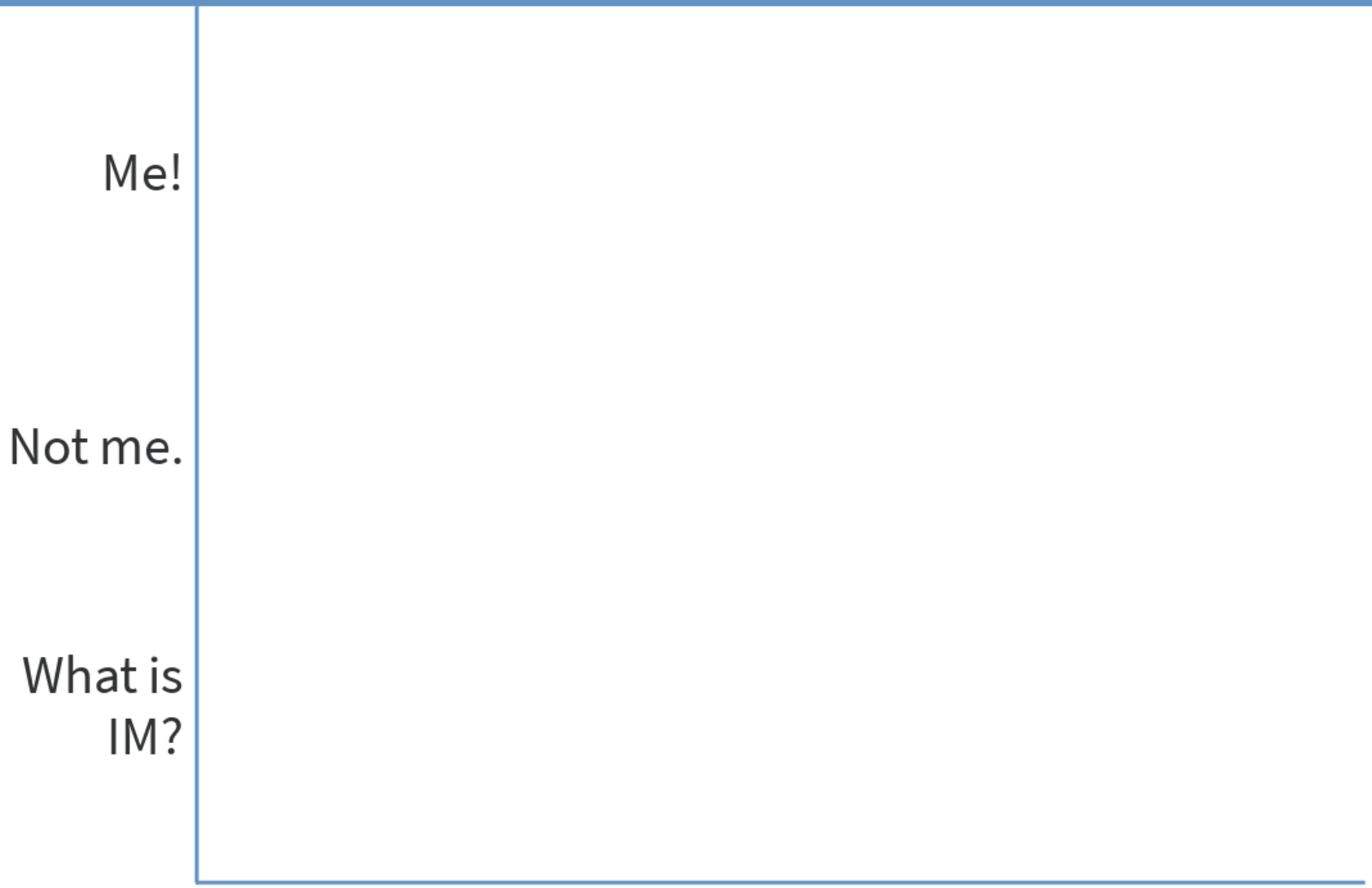
The Admission Strip

2017 Cochrane Review

- 4 trials – 13,000 laboring patients
- Trend towards more c-sections with admission strip (20% increase, not statistically significant)
- Increased likelihood of continuous monitoring (RR 1.30)
- No difference in fetal or neonatal deaths or other secondary outcomes.
- Author Conclusions: No benefit to an admission strip. Inform patient that admission cardiotocography likely associated with increased c-section rate.

Devane, 2017

Who still uses IM and would rather die than give it up?



Intermittent Monitoring

- EFM utilized in an intermittent fashion
- NOT the same as IA
- Methods vary and are not evidence-based
- Medicolegally problematic
- Continues to be widely used

Real Talk on Barriers

- Liability
- Training
- Nursing work flow (time, preference)

Real Talk on Barriers - Liability

- Fear of litigation/perception of “evidence” in court
- Documentation issues (policies and procedures)
- Is CEFM the Standard of Care?
- Staff Education
- Informed consent

Miller, 2015; Sartwelle, 2017; Spector-Bagdady, 2017; Vintzileos, 2018

Real Talk on Barriers - Training

- Limited options for training
- Training is primarily left up to each institution

Miller, 2015

Real Talk on Barriers – Nursing Workflow & Preferences

- More time required at the bedside
- 1:1 staffing
- Perception that patients are inconvenienced by IA and/or prefer CEFM
- RN preference/more adept at finding FHT with EFM device over doppler
- Intraprovider distrust/desire to “prove” category I tracing
- Lack of available supplies/dopplers

Heelan, 2013; Walker, 2001

Local focus

“I love being restricted to IA in the OOH environment. It removes the possibility that someone on the birth team will use continuous monitoring for convenience or out of habit.” –Birth Center Provider

“I wish that we would have had an IA policy years and years ago.” –Hospital Provider

“As soon as you apply EFM meaning creating a record on paper or electronically no matter how brief, it is not IA. IA involves the use of a doptone or a fetoscope. Medicolegally and theoretically even a 1 minute tracing requires evaluation and interpretation as EFM.” –Birth Center Provider

“I feel like there are no clear guidelines for whether or not we can do IA in 2nd stage when we’re hearing decels.”-Hospital RN

“Sometimes patient’s ask to be on the monitor so that we aren’t coming in and out of their room so often, especially if they are trying to rest.” – Hospital RN

Recommendations

- Eliminate use of IM entirely to contribute to national data and build evidence on method, timing and interpretation
- Consider eliminating use of admit strip
- Encourage professional development of obstetric nurses in FHR monitoring
- Ongoing chart reviews for low-risk patients, similar to strip review for high-risk
- Discussion on informed choice with clients
- Keep the discussion going!

“Intrapartum fetal death is not prevented by monitors; it is prevented by an alert *provider* at the bedside of a laboring woman.” –Shearer, 1979

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