Beyond the Basics:
The Art and Science of
Tracing Interpretation

Session 4:
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Wisconsin Association for Perinatal Care (WAPC)

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Notice of disclosures

• Notice of requirements for successful completion
  – Registrants must attend full session and complete evaluation to receive contact hours
• Conflicts of Interest
  – None to report
• Financial Disclosures
  – None
• Sponsorship or commercial support
  – None
• Non-endorsement of products
  – The speaker does not endorse the use of any particular medications or products as part of this educational session
• Off-label use
  – The speaker may discuss the off-label use of misoprostol and terbutaline as they relate to labor and delivery.
Before we begin...

- Listen-only mode

- Questions – please ask, please answer!
  - Raise your hand
  - Type into the Question Pane
  - Out of time? Email wapc@perinatalweb.org

- Technical problems: Email Barb Wienholtz at wienholtz@perinatalweb.org or call at 608-285-5858, ext. 201
Before we begin...

The content presented today is a case study. Components of this case were chosen based on their applicability to achieve learning objectives for this presentation. Do not assume the patient featured in the case was cared for by the instructor or at the facility at which the instructor is employed.

The discussion will focus on interpretation of the electronic fetal monitoring (EFM) tracings for the purpose of education. At times, the discussion may lead to the care decisions made based on EFM interpretation.

IF the instructor shares details regarding actual or potential care decisions, please note those decisions do not necessarily reflect the opinions of the instructor, a particular provider, the standard of care for any particular institution or facility, or of WAPC.
Objectives

At the conclusion of the session, participants will be able to:

1. Systematically review the fetal monitoring data to identify the fetal heart rate pattern classification (category).
2. Discuss interventions/management of the fetal heart rate patterns based on their pathophysiology.
Learning Outcome

• Identify required actions correctly to manage women with abnormal fetal heart rate patterns.
The 2008 National Institute of Child Health and Human Development (NICHD) Report of Fetal Heart Rate Monitoring

- Defined standard fetal heart rate nomenclature
- Identified three categories for fetal heart rate interpretation
- Proposed future research
2008 NICHD Report

• Report endorsed by:
  

  – AWHONN-endorsed and incorporated in fetal monitoring curriculum

  – American College of Nurse Midwives

  – American Academy of Family Practice

"Management of Intrapartum Fetal Heart Rate Tracings"

- Reviewed:
  - Nomenclature
  - Fetal Heart Rate Interpretation (categories)

- Provided framework for evaluation and management of intrapartum patterns based on categories

- Assessment algorithm for fetal heart rate patterns

- Intrapartum resuscitative measures

- Management of uterine tachysystole

The following questions are used to evaluate every tracing, followed by specific questions:

1. What is the contraction pattern? (interval, duration, resting tone if appropriate)
2. What is the baseline fetal heart rate?
3. What is the baseline variability?
4. Are there any periodic changes present?
5. Are there any episodic changes present?
6. What are the probable causes of the changes present?
7. When was the last time there was either moderate variability or an acceleration?
• Interpretation
• Interventions/Communication
• Documentation in chart
• **SBAR**
  
  – **Situation**
  – **Background**
  – **Assessment**
  – **Recommendation**
Case Scenario #1

• 37 weeks
• G1 P0
• IOL for IUGR and Gestational Hypertension
• Monitored for growth
  – 2nd percentile 5 weeks prior to delivery
  – 7th percentile 2 weeks prior to delivery
  – EFW 4 lbs 12oz
• Doppler studies normal
• Labs WNL
Case 1 Tracing 1

NST 1 month before delivery
BP 143/81
Case 1 Tracing 2

NST part 2
Case 1 Tracing 3

NST part 3
BP 152/87    BP at time of discharge 132/80
Poll Question #1

What is your interpretation of the NST?

A. Reactive
B. Reassuring
C. Category I
D. A & C are both correct
Can/should the term “reactive” be used when describing intrapartum tracings?

A. Yes
B. No
Case 1 Tracing 4

NST 1 week prior to delivery (started @ 1140)
BP 146/99
Case 1 Tracing 5

NST 1 week prior to delivery (started @ 1140)
BP 140/81 (136/87 just prior to discharge)
IOL planned for following week
Tracing on admission for IOL
Case 1 Tracing 8

dinoprostone 10mg vaginal insert @ 1810 & 0633
Case 1 Tracing 11

AROM 0914 clear fluid, FSE and I UPC placed
Poll Question #3

How would you best describe the tracing?

A. Baseline 135, min var, variable decel
B. Baseline 135, mod var
C. Baseline 135, mod var, no accels, no decels
D. Category II
Case 1 Tracing 13

VE – 3.0cm / 60 / -2
Case 1 Tracing 14

VE – 3.0cm / 60 / -2
VE – 3.0cm / 60 / -2
Decision for CS @ 1309
Outcome Case 1

- Infant delivered by CS @ 1340
- Apgars 8/9
- Weight 1985 gm / 4lb 8oz
- Admitted to NICU (<2000gms)
Case Scenario #2

• 36 4/7 weeks
  – MFM recommendation to deliver prior to 37 wks
• G1 P0
• IOL for Type I DM (non-compliant, poor glucose control), polyhydramnios
• Preeclamptic labs WNL
Tracing on admission
VE 1 cm / 40 / -3
Case 2 Tracing 3

Misoprostol 25mcg @ 0126 (repeated @ 0528)
0430 "uterine irritability" charted
BP 137/81
2nd misoprotol 25mcg placed
VE 1cm / 70 / -2
Uterine activity documented as “irritability”
Case 2 Tracing 6

1 hr after last misoprostol
Case 2 Tracing 7

30 minutes later
Poll Question #4

Which of these uterine contraction pattern descriptions meet the definition for tachysystole?

A. 6 contractions in a single 10 min window
B. 16 contractions in 30 minutes
C. 18 contractions in 30 minutes
D. Both B and C are correct
Case 2 Tracing 10
Terbutaline 0.25mg subq given @ 1014
VE 2cm / 90 / -1
FSE / IUPC placed terbutaline 0.25mg subq repeated @ 1052
VE 2.5 cm / 90 / -1
Poll Question #6

What is the category of the last tracing?

A. I
B. II
C. III
Case 2 Tracing 15

Last prior to transfer to OR
Outcome Case 2

- Infant delivered by CS @ 1205
- Apgars 1/8
- Weight 3325 gm / 7lb 5oz
- NO evidence of abruption
Case Scenario #3

• 29 wk 2 days
• G2 P1001
• 2days ↓ fetal movement & ↑ leg swelling
• No H/A at present, but had past few days
• No RUQ pain
• BPs 170-180 / 100-100 in office
• FHTs 150 per doppler
This is tracing on admission to L&D
BP 156/99
Case 3 Tracing 2

BP 154/105
BP 154/105
Labs being drawn
Case 3 Tracing 4

BP 200/137
Labetolol 10m IV given @ 1213
MgSO4 started @ 1214
BP 225/112
Labetolol 10mg IV repeated @ 1224
Last tracing prior to move to OR
Outcome Case 3

- Infant delivered by CS @ 1250
- Apgars 1 / 4 / 7
- Weight 810 gm / 1lb 12oz
- Discharged to home day 56 of life


Discussion

Questions?

Comments?
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• Don’t miss the next session: November 15, 2017