FETAL MONITORING

MONITORING BY AUSCULTATION (rarely used at HCMC):

Mortality and morbidity are the same in randomized trials of mothers monitored by auscultation and by electronic monitor.

Technique:	1:1 nurse/pt ratio required Auscultate **during** the contraction **and** 30 seconds after contraction ends	
First stage (active):	every 30 minutes	
Second stage:	every 15 minutes	
High-risk patient:	First stage:	every 15 minutes
	Second stage:	every 5 minutes or with each contraction (most frequent one)

Non-reassuring findings:

Baseline: <100 BPM or >160 BPM

Rate 30 seconds after contraction: <100

For non-reassuring patterns, follow same protocols used with electronically monitored patients

ELECTRONIC FETAL MONITORING: (how to interpret)

1. Technical Aspects: internal or external monitors?

2. Baseline FHR and Trend: (must be observed $\geq$ 10 min.)
   What is the rate? (nl 120-160)
   What is the long term and beat-to-beat variability?

3. Uterine Contractions:
   (Rate, interval, duration, regularity, intensity, baseline tone)

4. Periodic Fetal Heart Rate Changes:
   (Repetitious changes related to fetal activity/uterine contractions)
   Accelerations?
   Decelerations? What is the type?

5. Non-periodic Changes:
   Non-repetitious, related to other factors, e.g. examination

6. Interpretation:

   Reassuring or non-reassuring?
   What should we do next?

Recommendations based on Level A evidence:

- High false positive rate with EFM used to predict adverse outcomes
- Higher rate of instrumented delivers and c-sections
- Does not decrease incidence of cerebral palsy
- Amnioinfusion for persistent variable decelerations reduces need for emergent c-section

Recommendations based on Level B evidence:

- Labor of high risk OB patients should be monitored continuously
- Reinterpretation of the FHR tracing especially after knowing the neonatal outcome is not reliable
- Use of fetal pulse oximetry in clinical practice cannot be supported at this time

ALSO Course Mnemonic

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Determine **R**isk (what are patient risk factors)
Contractions (how often and how strong if IUPC placed)
Baseline **Ra**te (normal 110-160)
Variability (10 to 15 bpm)
Accelerations (increase 15 beats for 15 seconds)
Decelerations (variable, early, late)

Overall Assessment (reassuring, nonreassuring)

REFERENCES:
ALSO Course
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