Intrapartum Fetal Heart Rate Management Decision Model

Confirm FHR and uterine activity

FHR Category?

II or III

I

Is the patient low-risk?

Yes

Routine Surveillance
- Every 30 min in the 1st stage of labor
- Every 15 min in the 2nd stage of labor

No

Heightened Surveillance
- Every 15 min in the 1st stage of labor
- Every 5 min in the 2nd stage of labor

II

Moderate variability and/or accelerations and No clinically significant decelerations

Yes

FHR Category?

No

“C” – Clear obstacles to rapid delivery
“D” – Determine decision to delivery time

No

Is vaginal delivery likely before the onset of metabolic acidemia and potential injury?

Yes

Expedite Delivery

No

“ABCD”

“A” – Assess oxygen pathway
“B” – Begin corrective measures

III

No

Yes
Fetal Heart Rate Categories

I. Category I requires ALL of the following:
   - Baseline = normal bpm
   - Variability = Moderate
   - Late decelerations absent
   - Variable decelerations absent
   - Prolonged decelerations absent

II. Category II includes all FHR tracings that are not included in Category I or II:
   - Absent variability with recurrent late decelerations
   - Absent variability with recurrent variable decelerations
   - Absent variability with bradycardia
   - Sinusoidal pattern for at least 5 minutes

III. Category III requires AT LEAST ONE of the following:
   - Absent variability with recurrent late decelerations
   - Absent variability with recurrent variable decelerations
   - Absent variability with bradycardia
   - Sinusoidal pattern for at least 5 minutes

Intrapartum Fetal Heart Rate Management “ABCD”

“Oxygen Pathway”
- Environment
  - Lungs
  - Heart
  - Vasculature
  - Uterus
  - Placenta
  - Cord
  - Fetus

“Differentials”
- Maternal
  - Fetal
  - Sleep cycle
  - Infection
  - Medications
  - Anemia
  - Hyperthyroidism
  - Congenital anomaly
  - Extreme prematurity
  - Prematurity

Three Central Concepts of FHR Interpretation
- Environment
  - Lungs
  - Heart
  - Vasculature
  - Uterus
  - Placenta
  - Cord
  - Fetus

- Hypoxia
  - Metabolic acidemia
  - Hypokalemia

- Hypoxic injury requires metabolic acidemia

- Gestational age
  - Presentation
  - Position

Facility
- OR availability
- Equipment
- Consider notifying:
  - Obstetrician
  - Surgical assistant
  - Anesthesiologist
  - Neonatologist
  - Pediatrist
  - Nursing staff

Staff
- Consider staff:
  - Availability
  - Training
  - Experience

Mother
- Informed consent
- Anesthesia options
- Laboratory tests
- Blood products
- Intrauterine access
- Urinary catheter
- Abdominal prep

Urinary catheter
- Consider: Urinary catheter

Uterus
- Baseline uterine tone
- Exclude uterine stimulant
- Consider uterine relaxant

Abdominal prep
- Confirm: Abdominal prep

Placenta
- Placental separation

Cord
- Vaginal exam
- Exclude cord prolapse

“Q” Clear Obstacles to Rapid Delivery
“P” Determine Decision to Delivery Time

Labor
- Consider IUPC
- Consider: IUPC

Fetus
- Estimated weight
- Gestational age
- Presentation
- Position
- Consider: Fetus

Facility response time
- Consider: Facility response time

Supplemental oxygen
- Consider: Oxygen therapy

Correct hypotension
- Consider: Correct hypotension

Stop or reduce uterine stimulant
- Consider: Stop or reduce uterine stimulant

Consider uterine relaxant
- Consider: Uterine relaxant

Consider administration of vasoactive agents
- Consider: Vasoactive agents

Consider immediate delivery
- Consider: Immediate delivery

Consider: Immediate delivery

Consider: Immediate delivery

Consider: Immediate delivery