Electronic Fetal Monitoring Review Questions

The Johns Hopkins Hospital

Review Questions

1. These FHR tracings are not associated with fetal acidemia and may be managed in a routine manner with either continuous or intermittent monitoring.
   a. Category I
   b. Category II
   c. Category III

2. These FHR tracings require evaluation, initiation of appropriate corrective measures when indicated, continued surveillance, and reevaluation.
   a. Category I
   b. Category II
   c. Category III

3. These FHR tracings convey an increased risk for fetal acidemia at the time of observation.
   a. Category I
   b. Category II
   c. Category III

4. These FHR tracings have been associated with an increased risk for neonatal encephalopathy, cerebral palsy, and neonatal acidosis.
   a. Category I
   b. Category II
   c. Category III

5. According to NICHD, baseline FHR includes:
   a. Approximate mean FHR rounded to increments of 5 beats per minute during a 10-minute segment
   b. Periods of marked FHR variability
   c. Periodic or episodic changes

6. According to NICHD, fluctuations in the baseline FHR amplitude range detectable but 5 beats per minute or fewer is a term used to describe:
   a. Absent variability
   b. Minimal variability
   c. Moderate variability

7. The presence of FHR accelerations or moderate FHR variability or both are highly predictive of normal fetal acid–base status.
   a. True
   b. False

8. FHR tracings with recurrent variable decelerations, the presence of moderate FHR variability or a spontaneous or induced acceleration suggests that the fetus is currently acidemic.
    a. True
    b. False

9. Scientific research has shown amnioinfusion to decrease the recurrence of variable decelerations as well as the rate of cesarean delivery for abnormal FHR patterns.
    a. True
    b. False

10. The predictive value of Category III tracings for abnormal neurologic outcome is poor.
    a. True
    b. False

11. The decision-to-incision interval and mode of delivery should be based on the timing that best incorporates maternal and fetal risks and benefits.
    a. True
    b. False

12. Moderate variability and/or accelerations reliably predict the absence of fetal metabolic acidemia at the time they are observed.
    a. True
    b. False

13. According to NICHD, a visually apparent abrupt increase (onset to peak in less than 30 seconds) in the FHR is a term used to describe:
    a. Accelerations
    b. Variable decelerations
    c. Late decelerations

14. The onset, nadir, and recovery of the deceleration are coincident with the beginning, peak, and ending of the contraction, respectively.
    a. Late decelerations
    b. Variable decelerations
    c. Early decelerations

15. Visually apparent, smooth, undulating pattern in FHR baseline with a cycle frequency of 3–5 per minute which persists for 20 minutes or more.
    a. Variability
    b. Lamda pattern
    c. Sinusoidal pattern

16. Intermittent variable decelerations:
    a. Defined as occurring with less than 70% of contractions
    b. Are the most common FHR abnormality occurring during labor
    c. are associated with hypoxia and fetal asphyxia

17. In the fetus, which path does oxygenated blood take from the placenta to the fetus?
    a. Umbilical vein–inferior vena cava–patent foramen ovale–left atrium
    b. Umbilical artery–inferior vena cava–patent foramen ovale–left atrium
    c. Umbilical vein–superior vena cava–patent foramen ovale–left atrium

18. Which of the following is *not* an indication for antepartum fetal surveillance?
    a. Prior unexplained fetal demise
    b. Multiple gestation
    c. Fetal macrosomia

19. Which of the following statements about fetal movement monitoring is *false*?
    a. A decrease in fetal movements often precedes fetal death
    b. Fetal movement monitoring is beneficial in high-risk and low-risk pregnancies in reducing fetal mortality
    c. There is an established protocol for duration for counting movements and optimal number of movements has been defined

20. The CST is indicated in the following circumstances:
    a. Multiple gestations
    b. Preeclampsia
    c. History of prior myomectomy or classical Cesarean section scar

21. All of these factors can lead to a nonreactive NST *except*:
    a. Smoking
    b. Stimulants
    c. Fetal behavioral states

22. FHR variability can be decreased in all of the following situations, *except*:
    a. Excessive fetal movement
    b. Narcotics
    c. Fetal anomalies

23. Which of the following pairs, matching the FHR pattern with its definition, is ***correct***?
    a. Prolonged acceleration – acceleration of > 10 min
    b. Sinusoidal pattern – smooth, sine wave-like pattern of regular frequency and amplitude
    c. Bradycardia – baseline FHR < 100 b.p.m. lasting longer than 2 minutes

24. When a decision for operative delivery in the setting of a Category III EFM tracing is made, it should be accomplished:
    a. Within 15 minutes
    b. Within 30 minutes
    c. As expeditiously as feasible

25. No distinction in the NICHD definitions is made between:
    a. Episodic and periodic decelerations
    b. Short and long term variability
    c. Recurrent and intermittent decelerations

26. If tachysystole-induced FHR abnormalities do not resolve with intrauterine resuscitation measures in the woman undergoing induction, the next management step is to:
    a. Administer a tocolytic
    b. Expedite delivery
    c. Provide sedation

27. Ms. Green is receiving Magnesium Sulfate infusion for fetal neuroprotection. The first step in managing minimal variability is:
    a. Intrauterine resuscitation
    b. Scalp stimulation
    c. Continued observation

28. The greatest strength of intrapartum EFM is its:
    a. Ability to predict the absence of metabolic acidosis
    b. Predictive ability for cerebral palsy and other neurologic impairment
    c. Value as an indicator confirming the need for an expedited birth

29. The first step in managing recurrent variable decelerations is:
    a. Initiation of IV fluids
    b. Maternal repositioning
    c. Oxygen administration

30. A factor that would be reassuring in the presence of recurrent variable decelerations is:
    a. Presence of moderate fetal heart variability
    b. Shoulders before and after the variable deceleration
    c. Fetal heart rate baseline within normal range

31. The predictive value of Category III tracings for abnormal neurologic outcome is:
    a. High
    b. Poor
    c. Unknown

32. When tachysystole occurs in the presence of a Category I tracing, oxytocin:
    a. Can be maintained
    b. Must be stopped immediately
    c. Should be decreased

33. An advantage to the use of vibroacoustic stimulation compared to a nonstress test is that:
    a. Is predictive of Apgar scores
    b. Protects against fetal auditory insult
    c. Shortens testing time

34. The fetal behavior with the earliest sign of fetal compromise is:
    a. Breathing movements
    b. Fetal heart rate
    c. Fetal tone

35. After 20 minutes, a nonstress test is nonreactive. The most appropriate next step is to:
    a. Perform a contraction stress test
    b. Extend testing time
    c. Give the mother juice to drink

36. As gestational age advances, the fetal heart rate:
    a. Increases
    b. Decreases
    c. Remains the same

37. Fetal movement counting in low risk pregnancies should start at:
    a. 24 weeks gestation
    b. 28 weeks gestation
    c. 36 weeks gestation

38. In congenital heart block, at delivery the neonate is a candidate for:
    a. Insertion of a pacemaker
    b. Cardiac surgery
    c. Heart transplant

39. Parameters of fetal movement and fetal breathing movement reflect:
    a. Functional central nervous system
    b. Adequate vascular perfusion
    c. Normal heart and lungs

40. Biophysical profile score of 6, which of the following factors would be an indication for delivery?
    a. Non-reactive stress test
    b. Amniotic fluid volume score of 0
    c. Absence fetal breathing movement

41. While performing a nonstress test on a 34 week fetus, a prolonged deceleration is noted. The next step in management is to:
    a. Emergency delivery
    b. Extend the testing time
    c. Perform a biophysical profile

42. A contraction stress test that shows intermittent variable decelerations should be interpreted as:
    a. Positive
    b. Suspicious
    c. Unsatisfactory

43. Common causes of late decelerations include the following conditions **except**:
    a. Prematurity
    b. Chronic hypertension or preeclampsia
    c. Diabetes mellitus

44. In preeclampsia, there is a greater degree of _____ than is seen in normotensive gravidas, which can lead to decreased placental perfusion and placental hypoxia.
    a. Placental vasodilation
    b. Placenta thickening
    c. Placental infarction

45. In diabetes, there is _____ of the trophoblastic basement membrane creating an increase in the diffusion distance between the maternal and fetal systemic circulations, which can lead to decreased placental perfusion and placental hypoxia.
    a. Placental vasodilation
    b. Placenta thickening
    c. Placental infarction

46. Sustained bearing down efforts during the second stage of labor result in:
    a. Higher maternal blood pressure and placental blood flow
    b. Delayed recovery of FHR decelerations and subsequent newborn acidemia
    c. Lower fetal pH and PO2, higher PCO2

47. The usual claim in fetal monitoring malpractice cases is miscommunication among health care members, which leads to:
    a. Use standardized terminology to describe FHR pattern interpretation.
    b. Timely cesarean section prevention of fetal injury.
    c. Failure to implement appropriate interventions in nonreassuring situations.

48. Communication between health care providers should be recorded in the medical record. Which statement is ***appropriate*** to document in the medical record?
    a. Any request for the provider's presence and the lack of response received.
    b. Subjective and objective facts provided in the communication, including the content of phone calls, any requested treatments, and placing blame for a lack of response to a request.
    c. The FHR pattern identified with standard terminology for decelerations and variability.

49. Should the provider refuse to respond to the bedside when asked, it is the responsibility of those caring for the obstetrical patient to implement the appropriate actions when deemed necessary. Which of the following actions would be ***inappropriate***?
    a. Continue to monitor the patient closely and wait for the provider to respond.
    b. Implement the hospital chain of command policy and document that the procedure was followed according to the protocol in effect.
    c. Activate the obstetrical emergency management team.

50. Which statement is **true**?
    a. It is acceptable to use EFM terminology like "fetal distress" and "non reactive, but reassuring"
    b. Normalization of deviant behavior results when usually competent caregivers engage in at-risk behaviors or shortcuts are taken in patient care.
    c. A common legal claim is the use of oxytocin to induce labor after 39 weeks gestation.

References:

1. Journal Article: Multidisciplinary Teamwork Approach in Labor and Delivery and Electronic Fetal Monitoring Education: A Medical-Legal Perspective. Dawn E. Collins, RNC, JD, J Perinat Neonat Nurs, Vol. 22, No. 2, pp. 125–132

2. Journal Article: Management of Intrapartum Fetal Heart Rate Tracings: ACOG Obstetrics & Gynecology, Practice Bulletin, Number 116, November 2010.

3. Textbook: Thomas J. Garite (In Gabbe et al), 2012. Obstetrics: Normal and Problem Pregnancies, *6th ed.*; Chapter 16 - Intrapartum Fetal Evaluation

Answer Key

1. A
2. B
3. C
4. C
5. A
6. B
7. A
8. B
9. A
10. A
11. A
12. A
13. A
14. C
15. C
16. B
17. A
18. C
19. C
20. B
21. B
22. A
23. B
24. C
25. B
26. A
27. C
28. A
29. B
30. A
31. B
32. C
33. C
34. B
35. B
36. B
37. B
38. A
39. A
40. B
41. C
42. B
43. A
44. C
45. B
46. C
47. C
48. C
49. A
50. B