

Fetal Monitoring Practice Questions

(From Yale-New Haven Hospital, a MCIC Affiliate Hospital)

1. What FHR characteristic indicates the presence or absence of fetal oxygen reserves?
 - a. Depth of the deceleration pattern
 - b. Duration of the deceleration pattern
 - c. Presence of variability

2. Supine positioning following an epidural placement or for an IUPC placement leads to reduction of maternal cardiac output thus decreasing uterine circulation and placental perfusion. Which deceleration might you see on the monitor?
 - a. Early
 - b. Variable
 - c. Late

3. The physiologic actions of Terbutaline include:
 - a. Increased maternal cardiac output
 - b. Vasoconstriction of uterine muscle circulation
 - c. Vasodilation of the umbilical cord

4. Arterial cord blood values:
pH 7.21
pCO₂ 61.4 mmHg
pO₂ 20.4 mmHg
Base deficit 3.8 mEq/L
This is:
 - a. Metabolic acidosis
 - b. Normoxic
 - c. Respiratory acidosis

5. On the FHR strip you see normal range baseline with moderate variability and 2 accelerations. What physiologic mechanism is necessary for this fetal heart rate pattern?
 - a. An intact fetal autonomic nervous system
 - b. Fetal compensation with baroreceptor response
 - c. Increased fetal movement

6. Because of the potential risks for a pregnant woman with chronic hypertension, an antepartum fetal assessment that is recommended is:
 - a. Amniocentesis
 - b. Serial ultrasound
 - c. Oxytocin challenge test

7. A negative contraction stress test is characterized by:
 - a. Accelerations with onset of contractions
 - b. Maintenance moderate variability
 - c. No decelerations in response to contractions

Fetal Monitoring Practice Questions

(From Yale-New Haven Hospital, a MCIC Affiliate Hospital)

8. Failure to elicit a reactive pattern with a nonstress test after one hour of monitoring warrants:
 - a. Initiation of a biophysical profile
 - b. Repeat testing after administration of orange juice
 - c. Retesting in 24 hours

9. In considering fetal movement counts as an indicator of fetal well being, it should be understood that fetal movements:
 - a. Average about 100-150 movements weekly throughout pregnancy
 - b. Increase incrementally until term
 - c. Reach their maximum rate around 32 weeks gestation

10. Vibroacoustic stimulation is applied following nonreactivity on a nonstress test. After a one second stimulus, no accelerations occur for the next minute. The next management step is:
 - a. Apply another one second stimulus
 - b. Discontinue the test
 - c. Increase the stimulus to three seconds

11. A woman is 7 cms dilated and on the fetal monitor. Fetal heart rate activity mirrors the contraction intensity and begins and ends with the contraction. This is consistent with:
 - a. Early deceleration
 - b. Late deceleration
 - c. Variable deceleration

12. A woman at term in labor exhibits deep variable decelerations on an electronic fetal monitor. An amnioinfusion is ordered with the goal of:
 - a. Improving placental circulation
 - b. Maximizing fetal oxygenation
 - c. Relieving umbilical cord compression

13. A baroreceptor response to an increase in arterial blood pressure is to:
 - a. Cause vasoconstriction of the veins
 - b. Increase respiratory rate
 - c. Slow down the heart rate

14. The primary indicator of fetal oxygenation on a fetal heart rate tracing is:
 - a. Absence of decelerations
 - b. Presence of variability
 - c. Presence of accelerations

15. Following premature rupture of membranes, a woman at 33 weeks gestation is placed on a fetal heart rate monitor. The fetal heart rate is persistently 175 beats per minute. This is consistent with:
 - a. Normal gestational age response
 - b. Stress mediated response
 - c. Potential uterine infection

Fetal Monitoring Practice Questions

(From Yale-New Haven Hospital, a MCIC Affiliate Hospital)

16. A series of sine waves with similar duration and amplitude develops 10 minutes after Nubain is administered to a patient with previously reassuring tracings. The appropriate response to this fetal heart rate pattern would be to:
 - a. Administer oxygen
 - b. Continue to observe
 - c. Prepare for cesarean delivery

17. The intervillous space is probably maximal when a woman:
 - a. Is at rest in the lateral position
 - b. Exercises to where the pulse is at least 140 bpm
 - c. Experiences uterine contractions

18. When pharmacologic correction of hypotension is required following conduction anesthesia, it is best accomplished by:
 - a. A diuretic
 - b. Ephedrine
 - c. Methyldopa

19. Approximately 85% of the total uterine blood flow goes to supply:
 - a. Fetal brain
 - b. Placental circulation
 - c. Uterine musculature

20. The appropriate first action to take if the recorded heart rate accelerates during pushing and lasts the duration of the contraction is:
 - a. Apply a spiral electrode
 - b. Confirm the signal source
 - c. Reposition the patient

21. Conduction anesthetics increases the risk of decreased placental blood flow secondary to maternal hypotension due to:
 - a. Constriction of peripheral vessels
 - b. Increased vascular resistance
 - c. Sympathetic blockade

22. Tactile communication between twins in utero during labor can be reflected as:
 - a. Accelerations
 - b. Tachycardia
 - c. Variable decelerations

23. Maternal tachycardia can be mistaken for the fetal heart rate especially if:
 - a. Betamimetic drugs are being administered
 - b. The woman is concurrently being assessed with pulse oximetry
 - c. There is a multiple gestation

24. In comparing metabolic acidosis to respiratory acidosis, the clinician should understand that:
 - a. pCO₂ is high with metabolic acidosis
 - b. pO₂ is normal with respiratory acidosis
 - c. the base deficit is normal for both

Fetal Monitoring Practice Questions

(From Yale-New Haven Hospital, a MCIC Affiliate Hospital)

25. Umbilical blood gas values are used to:
 - a. Determine trauma that may have occurred during labor
 - b. Direct neonatal resuscitation efforts
 - c. Establish the state of fetal oxygenation at birth

26. Fetal hypoxia that can occur with precipitate labor is most likely due to:
 - a. Increased intervillous space circulation
 - b. Decreased periods of uterine relaxation between contractions
 - c. Administration of ephedrine for maternal hypotension

27. The purpose of clinical fetal heart rate monitoring is to:
 - a. Determine adequacy of fetal oxygenation
 - b. Predict fetal tolerance for labor
 - c. Prevent cerebral palsy injury

28. An obese woman is in active preterm labor and uterine activity is difficult to assess. An appropriate intervention would be to:
 - a. Perform a vaginal examination
 - b. Place an IUPC
 - c. Start pulse oximetry monitoring

29. If a fetal heart rate is greater than 250 beats per minute, it will appear on the fetal heart monitor as:
 - a. A weak signal
 - b. Half the rate
 - c. The same as the maternal pulse

30. In the event of hypoxia, the fetal circulatory response provides for:
 - a. An increase in cardiac output
 - b. Maintenance of cerebral blood flow
 - c. Redistribution of blood to vital organs

31. When a woman in labor is placed in a supine position, an anticipated response would be:
 - a. A drop in fetal scalp pH
 - b. An increase in femoral arterial pressure
 - c. Widening of the amplitude capillary pulse

32. The underlying physiology of the fetal heart rate finds parasympathetic impulses originates in the brain stem and are carried to the heart through the:
 - a. Cervical sympathetic fibers
 - b. Stimulation of cardiac beta receptors
 - c. The vagus nerves

33. A predisposing factor that leads to thickening of the placental membrane and decreasing maternal-fetal transfer is:
 - a. Conduction anesthesia
 - b. Diabetes
 - c. Hypertension

Fetal Monitoring Practice Questions

(From Yale-New Haven Hospital, a MCIC Affiliate Hospital)

34. The underlying cause of early deceleration is:
 - a. Baroreceptor response suppression
 - b. Central vagal stimulation
 - c. Increased peripheral resistance

35. The placement and the angle of transmission of the sound waves emitted by the hand-held Doppler device is used to calculate the fetal heart rate by accessing:
 - a. Aortic pulsations
 - b. Closure of the fetal heart valves
 - c. Tissue movement

36. Amnioinfusion is best used to relieve:
 - a. Absent variability
 - b. Late decelerations
 - c. Variable decelerations

37. The threshold for intervention via cesarean birth for nonreassuring fetal heart patterns for the preterm fetus is:
 - a. Dependent on the level of prematurity
 - b. Lower than the term fetus
 - c. Similar to the term fetus

38. ACOG recommends continuous electronic fetal monitoring in pregnancies where the woman has:
 - a. A history of preterm birth
 - b. A multiple gestation
 - c. Multiple risk factors

39. At 29 weeks gestation, the fetal heart rate has a persistent baseline rate of 170 beats per minute. This can be an indication of:
 - a. Evolving fetal hypoxemia
 - b. Normal preterm fetal heart rate
 - c. Maternal diabetes

40. The fetal heart tracing of a woman at 33 weeks gestation shows prolonged decelerations. A position change ameliorates the decelerations. This intervention most likely:
 - a. Promoted dilation of the peripheral vessels
 - b. Relieved inferior vena caval compression
 - c. Restored intravascular volume levels

41. A first line strategy to address fetal hypoxia is to undertake action that:
 - a. Changes the pO₂ gradient
 - b. Induces maternal hyperoxia
 - c. Restores blood flow

Fetal Monitoring Practice Questions

(From Yale-New Haven Hospital, a MCIC Affiliate Hospital)

42. While late and early decelerations have similar characteristics, the major difference relates to:
 - a. Depth of deceleration
 - b. Duration
 - c. Timing of onset

43. The best way to determine the presence of fetal life is by:
 - a. internal fetal monitoring
 - b. palpation of fetal movement
 - c. presence of fetal movement profile marks

44. A characteristic of a bradycardia fetal heart rate is:
 - a. Increased variability
 - b. Signal loss
 - c. Smooth contour

45. Differentiating between maternal heart rate and fetal heart rate can be best accomplished by:
 - a. Placing a fetal scalp electrode on the presenting fetal part
 - b. Placing an external Doppler over the maternal abdomen
 - c. Palpating the maternal pulse while observing the fetal heart rate on the fetal monitor

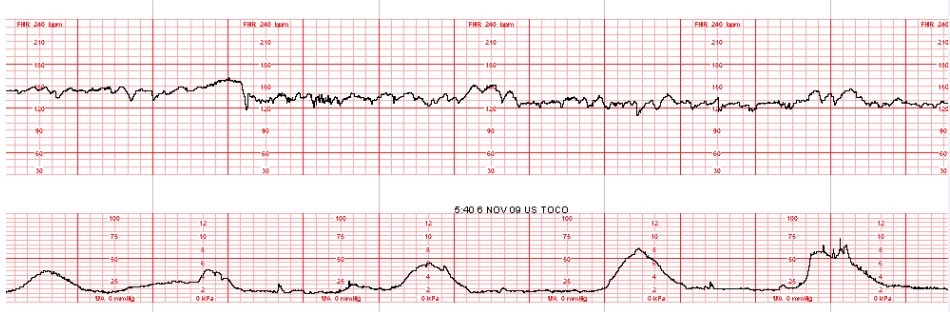
46. Short interval between the R peaks of successive QRS complexes are represented on the fetal heart tracing as:
 - a. Slower FHR
 - b. Faster FHR
 - c. Accelerations

47. Artifact on the fetal heart rate tracing appears as:
 - a. Disorganized deflections of varying lengths above and below the FHR signal
 - b. Organized deflections of equal or similar lengths that occur at regular intervals to form a pattern
 - c. Fluctuations of the FHR from one beat to the next

48. The physiologic basis of the late deceleration patterns is:
 - a. A decrease in the amount of oxygen perfused to the fetus through the placenta
 - b. Stimulation of the chemoreceptors and increased sympathetic activity
 - c. Umbilical cord compression with compromised blood flow into the fetal circulation

49. If there is a disagreement with the doctor concerning the patient's care based upon the interpretation of the fetal heart tracing, the next appropriate nursing action would be:
 - a. Notify the state department of health
 - b. Activate the chain of command
 - c. Follow the provider's order but document your concern

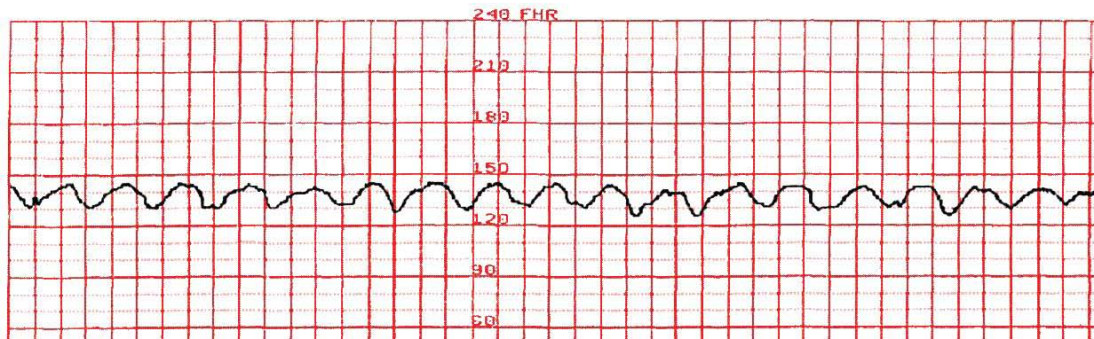
Fetal Monitoring Practice Questions
(From Yale-New Haven Hospital, a MCIC Affiliate Hospital)



50. The correct terminology to describe the uterine activity is in the above fetal tracing is:
- Tachysystole
 - Normal
 - Hyperstimulation

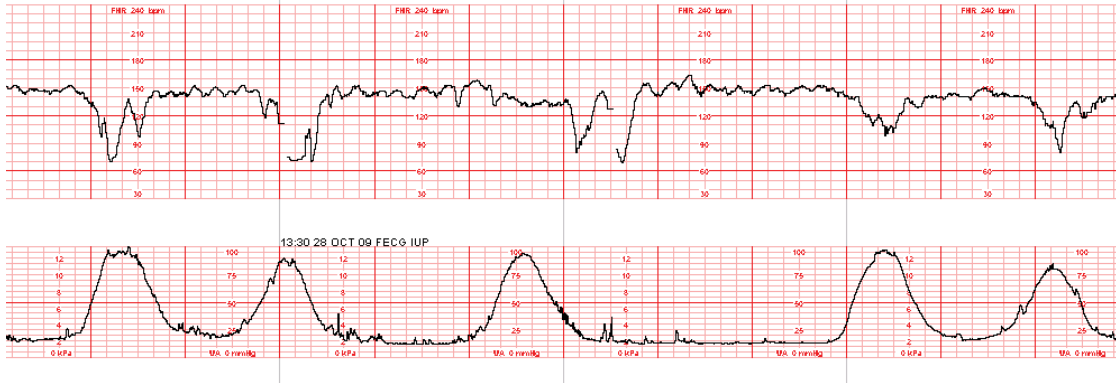


51. The most likely cause for the above FHR pattern is:
- Severe fetal anemia
 - Maternal narcotic administration
 - Chorioamnionitis

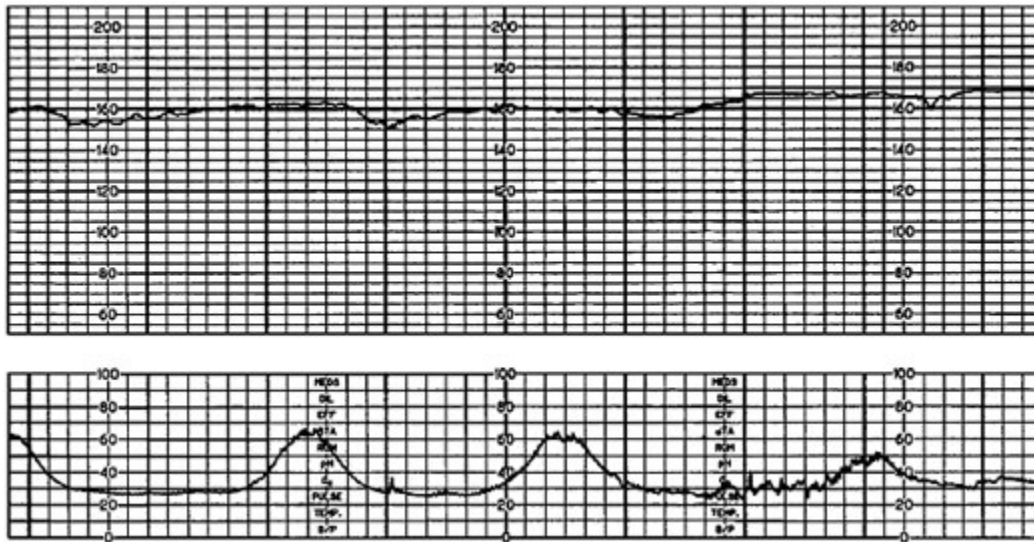


52. The above FHR tracing would be classified as:
- Category I
 - Category II
 - Category III

Fetal Monitoring Practice Questions
(From Yale-New Haven Hospital, a MCIC Affiliate Hospital)



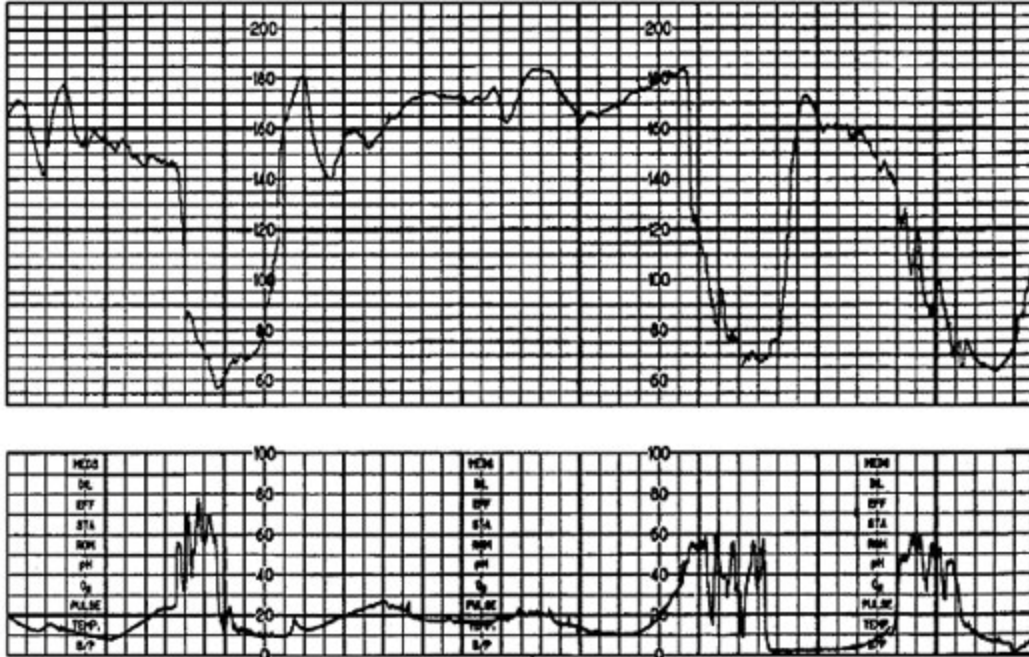
53. The above FHR tracing would be classified as:
- Category I
 - Category II
 - Category III



54. You note that the above FHR pattern has been present for the previous 10 minutes. Your next action would be:
- No interventions are needed at this time. Continue to monitor.
 - Prepare for a cesarean delivery
 - Assess maternal vital signs

Fetal Monitoring Practice Questions

(From Yale-New Haven Hospital, a MCIC Affiliate Hospital)



55. The most likely cause of the above FHR deceleration pattern is:
- Poor placental perfusion
 - Compression of the umbilical cord
 - Compression of the fetal head during delivery

Fetal Monitoring Practice Questions

(From Yale-New Haven Hospital, a MCIC Affiliate Hospital)

Answer Key

1. C	47. A
2. C	48. A
3. A	49. B
4. B	50. B
5. A	51. A
6. B	52. C
7. C	53. B
8. A	54. B
9. C	55. B
10. A	
11. A	
12. C	
13. C	
14. B	
15. C	
16. B	
17. A	
18. B	
19. B	
20. B	
21. C	
22. A	
23. A	
24. B	
25. C	
26. B	
27. A	
28. A	
29. B	
30. C	
31. A	
32. C	
33. B	
34. B	
35. C	
36. C	
37. B	
38. B	
39. A	
40. B	
41. C	
42. C	
43. B	
44. C	
45. C	
46. B	