

Fundamentals of Fetal Health Surveillance Exam

Name: _____ Site: _____

Date: _____ Test Score: _____

1. Intermittent auscultation of the fetal heart during labour is:
 - a) less effective than electronic fetal monitoring
 - b) associated with decreased intrapartum interventions
 - c) associated with increased perinatal mortality
 - d) not recommended in Canada.

2. Electronic fetal monitoring is associated with all of the following, **except**:
 - a) decreased maternal mobility
 - b) increased instrumental vaginal births
 - c) increased cesarean births
 - d) increased 5 min. Apgar score < 4

3. Which of the following fetal heart rate regulatory factors gradually matures and causes a slowing of the fetal heart rate baseline?
 - a) sympathetic nervous system
 - b) parasympathetic nervous system
 - c) chemoreceptors
 - d) epinephrine

4. Supine positioning without adequate tilt should be avoided in labouring women because it:

- a) causes decreased uterine blood flow by decreasing venous return
- b) significantly increases maternal arterial blood pressure
- c) results in increased uterine activity and dysfunctional labour
- d) causes catecholamine release and increased maternal heart rate

5. Which of the following condition is **not a possible** cause compromised placental blood flow?

- a) fetal movements
- b) diabetes mellitus
- c) maternal hypertension
- d) maternal smoking

6. Which of the following uterine activity finding is considered **normal**?

- a) uterine resting tone of moderate intensity
- b) uterine resting tone lasting 70 seconds
- c) uterine contractions doubling
- d) six (6) uterine contractions in ten (10) minutes

7. Using the external tocotransducer, you can assess the relative:

- a) duration and intensity of contractions
- b) frequency and duration of contractions
- c) frequency, duration, and resting tone of contractions
- d) frequency, duration, intensity and resting tone of contractions

8. Uterine contractions displayed on the external monitor tracing do not return to baseline. What is the **best** way to determine uterine resting tone?

- a) adjust the toco button to read 20 mm Hg
- b) ask the patient if she has pain
- c) palpate the abdomen between contractions
- d) re-adjust the tocotransducer on the fundus

9. The Consensus Guideline from the Society of Obstetricians and Gynecologists of Canada (2007) recommends that once the baseline is established you auscultate the fetal heart:

- a) immediately after a contraction for 30 to 60 seconds
- b) during a contraction and for 30 seconds thereafter
- c) before the next contraction for 10 seconds
- d) during every contraction for a 10-minute period

10. Which of the following FHR characteristic is **not** identified by auscultation?

- a) baseline rate of 100 bpm
- b) FHR 90 bpm for 45 seconds after a contraction
- c) persistent baseline tachycardia
- d) variable decelerations with contractions

11. Which of the following FHR characteristics is **not** determined when auscultating?

- a) baseline FHR
- b) baseline variability
- c) FHR rhythm
- d) Decelerations

12. In which of the following clinical situations would auscultation be ***contraindicated***:

- a) labour admission
- b) after rupture of membranes
- c) epidural analgesia
- d) augmentation with oxytocin

13. Giving a woman a glass of orange juice during a Non-stress test will stimulate fetal accelerations and reduce testing time.

- a) True
- b) False

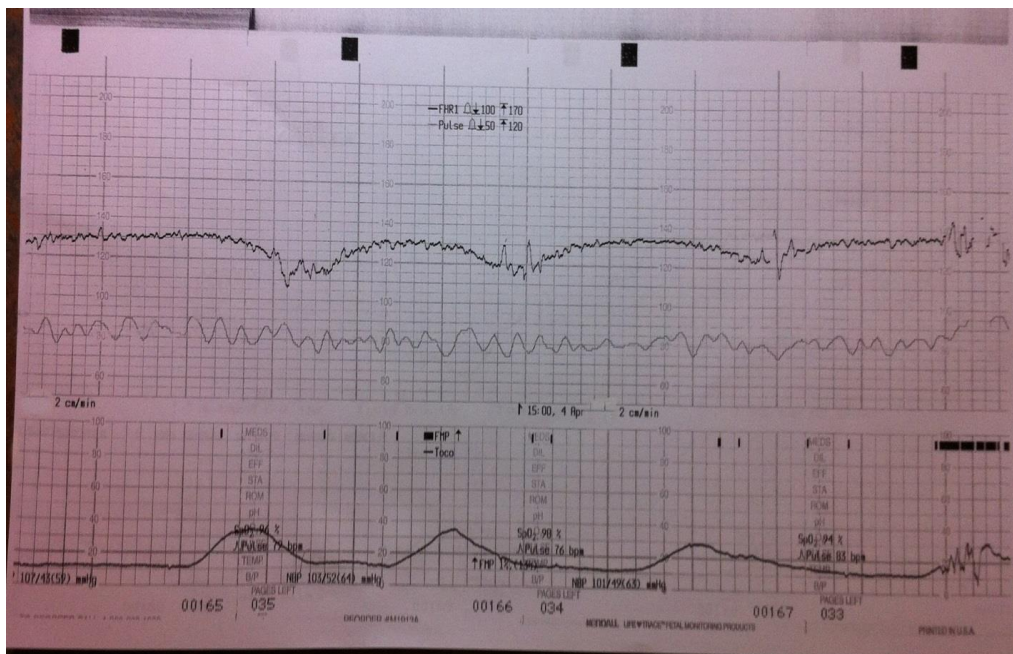
Case Scenario

Emily is a primigravida at 41² weeks gestation admitted at 0300 hours with ruptured membranes for 12 hours. She has had an uneventful low-risk pregnancy. These are her initial findings:

- cervix 1 cm dilated, 2 cm long, station -1
- leaking small amounts of clear fluid
- contractions q 5-6 minutes x 30 sec., mild to moderate to palpation, soft resting tone

At 0900 hours, an intravenous fluid infusion is started with oxytocin augmentation. The external electronic fetal monitor is applied.

At 1500 hours: Cervix: 5 cm, effacement: 1 cm long, station -2. This is the tracing observed (2cm/min):



14. The frequency of uterine contractions is:

- a) 5 in 10min
- b) 4 in 10 min.
- c) 2-3 in 10 min.
- d) unable to determine

15. The baseline fetal heart rate is:

- a) 130 bpm
- b) 150 bpm
- c) 115 bpm
- d) 140 bpm

16. The baseline variability is:

- a) absent
- b) moderate
- c) minimal
- d) sinusoidal

17. Periodic changes noted on this tracing are:

- a) early decelerations
- b) late decelerations
- c) variable decelerations
- d) mixed deceleration pattern

18. Periodic changes on this tracing persist for greater than 30 minutes; this tracing is classified as:

- a) normal
- b) Atypical
- c) Abnormal

19. Based on Emily's clinical information, what are the possible underlying physiological mechanisms for the observed pattern?

- | | |
|-----------------------------------|---------------------------------|
| 1. healthy fetal response | 5. loss of fetal reserve |
| 2. maternal fever/dehydration | 6. tetanic uterine activity |
| 3. umbilical cord compression | 7. uteroplacental insufficiency |
| 4. placental dysfunction/infarcts | 8. fetal sleep |

- a) 1
- b) 2, 7, 8
- c) 3, 4, 6
- d) 2, 4, 5, 7

20. As well as providing supportive care, what clinical management is indicated?

- | | |
|-----------------------------------|--|
| 1. change maternal position | 5. readjust tocotransducer |
| 2. consider increase in IV fluids | 6. consider giving oxygen by face mask |
| 3. discontinue oxytocin | 7. take maternal pulse |
| 4. administer tocolytic | 8. notify primary care provider |

- a) 1, 3, 4
- b) 2, 3, 5, 7
- c) 1, 2, 3, 6, 8
- d) 2, 4, 5, 6, 8

21. A scalp sampling is obtained. The results are pH 7.10. What is your interpretation and expected management?

- a) normal values, no immediate intervention required
- b) abnormal values, delivery indicated
- c) abnormal values, delivery indicated, but brain damage has likely already occurred
- d) unreliable values, need to repeat sample

22. At birth, the umbilical arterial gases were: **pH 7.01 pCO₂ 45 HCO₃ 10 Base deficit 15 mmol/l.**

Select the most appropriate interpretation:

- a) normal values
- b) metabolic acidosis
- c) respiratory acidosis
- d) mixed acidosis

23. Which of the following statements is **true** regarding documentation of FHR characteristics:

- a) when decelerations are auscultated after contractions, they should be documented as late decelerations
- b) the patient chart should summarize all maternal/fetal assessments and patient care events
- c) abnormal findings on the EFM tracing should be circled and then recorded in the chart
- d) the term “fetal distress” should be used to summarize abnormal FHR characteristics

24. It is recommended that a woman at 41 weeks and 3 days with normal amniotic fluid and normal NSTs be monitored with intermittent auscultation.

- a) True
- b) False

Total ____/24