

NCC EFM (ELECTRONIC FETAL MONITORING CERTIFICATION) STUDY GUIDE COMPLETE SOLUTION 2023/2024 CORRECT QUESTIONS AND ANSWERS.

Which of the following factors can have a negative effect on uterine blood flow?

- Hypertension
- Epidural
- Hemorrhage
- Diabetes
- All of the above correct answer. All of the above

Stimulating the vagus nerve typically produces:

- A decrease in the heart rate
- An increase in the heart rate
- An increase in stroke volume
- No change correct answer. A decrease in the heart rate

The vagus nerve begins maturation 26 to 28 weeks. Its dominance results in what effect to the FHR baseline?

- Increases baseline
- Decreases baseline correct answer. Decreases baseline

T/F: The most common artifact with the ultrasound transducer system for fetal heart rate is increased variability. correct answer True

T/F: All fetal monitors contain a logic system designed to reject artifact. correct answer True

T/F: Fetal arrhythmias can be seen on both internal and external monitor tracings. correct answer True

T/F: Variability and periodic changes can be detected with both internal and external monitoring. correct answer True

T/F: Variable decelerations are a vagal response. correct answer True

T/F: Variable decelerations are the most frequently seen fetal heart rate deceleration pattern in labor. correct
answer True

Etiology of a baseline FHR of 165bpm occurring for the last hour can be:

- Maternal supine hypotension
- Maternal fever
- Maternal dehydration
- Unknown
- 1 and 2
- 1, 2 and 3
- 2, 3 and 4 correct answer. 2, 3 and 4

The most prevalent risk factor associated with fetal death before the onset of labor is:

- Low socioeconomic status
- Fetal malpresentation
- Uteroplacental insufficiency
- Uterine anomalies correct answer. Uteroplacental insufficiency

Which of the following conditions is not an indication for antepartum fetal surveillance?

- Gestational hypertension
- Diabetes in pregnancy
- Fetus in breech presentation
- Decreased fetal movement correct answer. Fetus in breech presentation

Which of the following does not affect the degree of fetal activity?

- Vibroacoustic stimulation
- Smoking
- Fetal position
- Gestational age correct answer. Vibroacoustic stimulation

T/F: Umbilical cord influences that can alter blood flow include true knots, hematomas, and number of umbilical vessels. correct answer True

T/F: Low amplitude contractions are not an early sign of preterm labor. correct answer False

T/F: Corticosteroid administration may cause an increase in FHR accelerations. correct answer False

T/F: Corticosteroid administration may cause an increase in FHR. correct answer True

T/F: Contractions cause an increase in uterine venous pressure and a decrease in uterine artery perfusion. correct answer True

As a result of the intrinsic fetal response to oxygen deprivation, increased catecholamine levels cause the peripheral blood flow to decrease while the blood flow to vital organs increases. These flow changes along with increased catecholamine secretions have what effect on fetal blood pressure and fetal heart rate?

- Increase BP and increase HR
- Increase BP and decrease HR
- Decrease BP and increase HR
- Decrease BP and decrease HR correct answer B. Increase BP and decrease HR

During a term antepartum NST (non-stress test), you notice several variable decelerations that decrease at least 15 bpm and last at least 15 sec long. Which of the following is the least likely explanation?

- True knot
- Gestational diabetes
- Umbilical cord entanglement
- Oligohydramnios correct answer B. Gestational diabetes

All of the following are likely causes of prolonged decelerations except:

- Uterine tachysystole
- Prolapsed cord
- Maternal hypotension
- Maternal fever correct answer D. Maternal fever

All of the following could likely cause minimal variability in FHR except

- Magnesium sulfate administration
- Fetal sleep cycle
- Narcotic administration
- Ephedrine administration correct answerD. Ephedrine administration

When an IUPC has been placed, Montevideo units must be ____ or greater for adequate cervical change to occur.

- A. 100
- B. 200
- C. 300
- D. 400 correct answerB. 200

What would be a suspected pH in a fetus whose FHTs included recurrent late decelerations during labor?A. 7.10

- B. 7.26
- C. 7.32
- D. 7.41 correct answerA. 7.10

The nurse notes a pattern of decelerations on the fetal monitor that begins shortly after the contraction and returns to baseline just before the contraction is over. The correct nursing response is to:

- Give the woman oxygen by facemask at 8-10 L/min
- Position the woman on her opposite side
- Increase the rate of the woman's intravenous fluid
- Continue to observe and record the normal pattern correct answerd. Continue to observe and record the normalpattern

Determining the FHR baseline requires the nurse to approximate the mean FHR rounded to increments of 5 bpm during a ____-minute window (excluding accelerations and decelerations).

- 2
- 5
- 10

- 20 correct answerC. 10

Which of the following interventions would best stimulate an acceleration in the FHR?

- Provide juice to patient
- Perform vaginal exam
- Turn patient on left side
- Vibroacoustic stimulation correct answerB. Perform vaginal exam

Scalp stimulation

The FHR is controlled by the

- Sympathetic nervous system
- Sinoatrial node
- Atrioventricular node
- Parasympathetic nervous system correct answerB. Sinoatrial node

T/F: Fetal tachycardia is a normal compensatory response to transient fetal hypoxemia. correct answerTrue

At how many weeks gestation should FHR variability be normal in manner?

- 24 weeks
- 28 weeks
- 32 weeks
- 36 weeks correct answerB. 28 weeks

Reduced respiratory gas exchange from persistent decelerations may cause a rise in fetal PCO₂, which leads first to _____, then _____.

- Respiratory alkalosis; metabolic acidosis
- Respiratory acidosis; metabolic acidosis
- Respiratory alkalosis; metabolic alkalosis
- Respiratory acidosis; metabolic acidosis correct answerB. Respiratory acidosis; metabolic acidosis

Decreased intervillous exchange of oxygenated blood resulting in fetal hypoxia is typically present in_____.

- Variable decelerations
- Late decelerations
- Early decelerations
- Accelerations correct answerB. Late decelerations

Place the following interventions for a sinusoidal FHR in the correct order:

- Prepare for cesarean delivery
- Place patient in lateral position
- Determine if pattern is related to narcotic analgesic administration
- Provide oxygen via face mask

A. 4, 2, 3, 1

B. 3, 1, 2, 4

C. 4, 3, 2, 1

D. 3, 2, 4, 1 correct answerD. 3, 2, 4, 1

FHTs with accelerations, no decelerations, and minimal variability would be categorized as

- Category I
- Category II
- Category III correct answerB. Category II

FHTs with minimal variability, absent accelerations, and a 3-minute prolonged deceleration would be categorized as

- Category I
- Category II
- Category III correct answerB. Category II

Which of the following is not a likely cause of a sinusoidal FHR pattern?

- Chronic fetal bleeding
- Fetal hypoxia or anemia

- Triple screen positive for Trisomy 21
- Fetal isoimmunization correct answerC. Triple screen positive for Trisomy 21

Which of the following factors is not likely to cause uteroplacental insufficiency?

- Late-term gestation
- Preeclampsia
- Gestational diabetes
- Polyhydramnios
- Maternal smoking or drug use correct answerD. Polyhydramnios

The normal FHR baseline

- Decreases during labor
- Fluctuates during labor
- Increases during labor correct answerB. Fluctuates during labor

Bradycardia in the second stage of labor following a previously normal tracing may be caused by fetal

- Hypoxemia
- Rotation
- Vagal stimulation correct answerC. Vagal stimulation

Clinically significant fetal metabolic acidemia is indicated by an arterial cord gas pH of less than or equal to 7.10 and a base deficit of

- 3
- 6
- 12 correct answerC. 12

Fetal bradycardia can result during

- The sleep state
- Umbilical vein compression
- Vagal stimulation correct answerC. Vagal stimulation

While caring for a 235-lb laboring woman who is HIV-seropositive, the external FHR tracing is difficult to obtain. An appropriate nursing action would be to

- Apply a fetal scalp electrode
- Auscultate for presence of FHR variability
- Notify the attending midwife or physician correct answerC. Notify the attending midwife or physician

Which IV fluid is most appropriate for maternal administration for intrauterine resuscitation?

- Lactated Ringer's solution
- D5L/R
- Normal saline correct answerC. Normal saline

An EFM tracing with absent variability and no decelerations would be classified as

- Category I
- Category II (indeterminate)
- Category III correct answerB. Category II (indeterminate)

An EFM tracing with absent variability and intermittent late decelerations would be classified as

- Category I
- Category II
- Category III correct answerB. Category II

Maternal oxygen administration is appropriate in the context of

- Recurrent variable decelerations/moderate variability
- Intermittent late decelerations/minimal variability
- Prolonged decelerations/moderate variability correct answerB. Intermittent late decelerations/minimalvariability

In the context of hypoxemia, fetal blood flow is shifted to the

- Brain
- Liver
- Lungs correct answerA. Brain

Baroreceptor-mediated decelerations are

- Early
- Late
- Variable correct answer C. Variable

An appropriate initial treatment for recurrent late decelerations with moderate variability during first stage labor is

- Amnioinfusion
- Maternal repositioning
- Oxygen at 10L per nonrebreather face mask correct answer B. Maternal repositioning

Most fetal dysrhythmias are not life-threatening, except for _____, which may lead to fetal congestive heart failure. correct answer Supraventricular tachycardia

Medications, prematurity, fetal sleep, fetal dysrhythmia, anesthetic agents, or cardiac anomalies may result in _____ variability. correct answer Decreased

Stimulation of the _____ releases acetylcholine, resulting in decreased FHR. correct answer Parasympathetic nervous system

The _____ maintains transmission of beat-to-beat variability. correct answer Parasympathetic nervous system

Stimulation of the _____ releases catecholamines, resulting in increased FHR. correct answer Sympathetic nervous system

Stimulation of _____ results in abrupt decreases in FHR, CO, and BP. correct answer Baroreceptors

Baroreceptors influence _____ decelerations with moderate variability. correct answer Variable

In comparing early and late decelerations, a distinguishing factor between the two is

- Onset time to the nadir of the deceleration

- The number of decelerations that occur
- Timing in relation to contractions correct answer C. Timing in relation to contractions

The underlying cause of early decelerations is decreased

- Baroreceptor response
- Increased peripheral resistance
- Vagal reflex correct answer C. Vagal reflex

Glucose is transferred across the placenta via _____. correct answer Facilitated diffusion

Oxygen, carbon dioxide, water, electrolytes, urea, uric acid, fatty acids, fat-soluble vitamins, narcotics, barbiturates, anesthetics, and antibiotics are transferred across the placenta via _____. correct answer Simple (passive) diffusion

Amino acids, water-soluble vitamins, calcium, phosphorus, iron, and iodine are transferred across the placenta via _____. correct answer Active transport

Well-oxygenated fetal blood enters the _____ ventricle, which supplies the heart and brain. Less-oxygenated blood enters the _____ ventricle, which supplies the rest of the body. correct answer Left; right

Fetal blood has a _____ affinity for oxygen compared with the mother's blood, which facilitates adaptation to the low PO₂ at which the placenta oxygenates the fetus.

- Higher
- Lower correct answer A. Higher

The fetus has a _____ cardiac output and heart rate than the adult, resulting in rapid circulation.

- Higher
- Lower correct answer A. Higher

Which statement best describes the relationship between maternal and fetal hemoglobin levels?

- Fetal hemoglobin is higher than maternal hemoglobin
- Maternal hemoglobin is higher than fetal hemoglobin