Ontario Primary Care Paramedic Practice Exam (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. What consequence can arise from the pressure of the uterus on the bladder during pregnancy?

A. Decreased need to urinate

B. Increased frequency of urination

C. Painful urination

D. No effect on urination

2. What is a common expected behavior of a patient after administering Naloxone?

A. Calm demeanor

B. Confused and lethargic

C. Combative behavior

D. Extreme fatigue

3. What is the dosing guideline for Dextrose based on weight?

A. 0.1g/kg

B. 0.2g/kg

C. 0.3g/kg

D. 0.4g/kg

4. What is the normal duration range of a P-R interval on an ECG?

A. 0.08-0.12 seconds

B. 0.12-0.20 seconds

C. 0.10-0.15 seconds

D. 0.15-0.25 seconds

5. For a King LT Size 5 supraglottic airway, what height is it designed for?

A. 4-5 Feet

B. 5-6 Feet

C. 6+ Feet

D. 3-4 Feet

6. In which condition is nebulization contraindicated?

- **A. Patients with mild asthma**
- **B. Patients with fever and suspected febrile respiratory illness outbreak**
- **C. Patients with known allergies**
- **D. Patients with obstructive sleep apnea**

7. What is a contraindication for using a supraglottic airway?

- **A. Patient is conscious**
- **B. Stridor**
- **C. Low heart rate**
- **D. Upper respiratory infection**

8. What is created when the foramen ovale closes?

- **A. A small valve**
- **B. A septal defect**
- **C. A fossa ovalis**
- **D. A network of blood vessels**

9. In the case of a patient weighing 75kg, how much 50% dextrose will you administer based on the medical directive?

- **A. 50ml**
- **B. 37.5g**
- **C. 25g**
- **D. 15g**

10. Which of the following is a contraindication for administering Ibuprofen?

- **A. Previous use of Acetaminophen**
- **B. Pregnant**
- **C. History of mild headaches**
- **D. Unaltered mental status**

Answers

1. B
2. C
3. B
4. B
5. C
6. B
7. B
8. C
9. C
10. B

Explanations

1. What consequence can arise from the pressure of the uterus on the bladder during pregnancy?

A. Decreased need to urinate

B. Increased frequency of urination

C. Painful urination

D. No effect on urination

During pregnancy, the growing uterus exerts pressure on the bladder, which can lead to increased frequency of urination. As the uterus expands, it takes up more space in the abdominal cavity, lowering the capacity of the bladder to hold urine. The increased pressure can trigger the urge to urinate more frequently, even if the bladder is not full. Additionally, hormonal changes during pregnancy may also contribute to increased renal blood flow and urine production, further intensifying the need to urinate. This physiological change is common and is caused by both the mechanical effects of the uterus as well as the body's adaptations to pregnancy. As the pregnancy progresses, especially in the second and third trimesters, many women report needing to urinate more often, which can be uncomfortable but is a normal part of the physiological changes occurring in the body.

2. What is a common expected behavior of a patient after administering Naloxone?

A. Calm demeanor

B. Confused and lethargic

C. Combative behavior

D. Extreme fatigue

After administering Naloxone, a common expected behavior of a patient can include combative behavior. Naloxone is an opioid antagonist that works quickly to reverse the effects of opioid overdose, stimulating the central nervous system to restore normal respiratory function. As the patient emerges from the effects of the opioids, they may experience withdrawal symptoms, which can lead to disorientation and agitation. This state can present as combative behavior due to confusion or distress as they might not immediately understand their surroundings or what has transpired. While other behaviors such as calmness, confusion, or extreme fatigue may occur in different circumstances, the immediate reaction to the sudden withdrawal from opioids, triggered by the action of Naloxone, frequently results in an agitated or combative state as the patient regains consciousness. Understanding this can help paramedics anticipate and effectively manage the patient's behavior in the post-administration phase.

3. What is the dosing guideline for Dextrose based on weight?

A. 0.1g/kg

B. 0.2g/kg

C. 0.3g/kg

D. 0.4g/kg

The dosing guideline for Dextrose is indeed typically set at 0.2 grams per kilogram (g/kg) of body weight. This guideline is used particularly in emergency situations to address hypoglycemia or provide rapid glucose delivery to patients in need. Using a dosing standard of 0.2 g/kg allows for a consistent and safe administration of Dextrose based on the patient's weight, ensuring that both adults and pediatric patients receive an appropriate amount tailored to their body mass. This formula helps in quickly addressing the hypoglycemic state by raising blood glucose levels effectively. In practice, administering this amount takes into account individual patient factors, such as their current blood glucose levels and clinical condition, ensuring therapeutic efficacy while minimizing the risk of adverse effects, such as hyperglycemia. In emergency medical services, utilizing the correct dosing guidelines for such interventions is crucial, and being familiar with this particular dosage is essential for safe and effective patient care.

4. What is the normal duration range of a P-R interval on an ECG?

A. 0.08-0.12 seconds

B. 0.12-0.20 seconds

C. 0.10-0.15 seconds

D. 0.15-0.25 seconds

The P-R interval on an ECG measures the time taken for electrical impulses to travel from the atria to the ventricles, encompassing both the P wave (atrial depolarization) and the delay at the AV node. The normal duration of the P-R interval is crucial for determining the conduction of impulses within the heart. A normal P-R interval ranges from 0.12 to 0.20 seconds. This duration indicates that the impulse is taking an appropriate amount of time to traverse through the atrioventricular (AV) node and into the ventricles, allowing for proper cardiac function. If this interval is too short or too long, it can indicate various types of heart block or other conduction abnormalities. The other ranges presented do not align with the standard definition of a normal P-R interval. A shorter range, like 0.08-0.12 seconds, suggests faster conduction that may not allow for proper ventricular filling. The range of 0.10-0.15 seconds is too narrow and does not encompass the full normal variation. Lastly, the range of 0.15-0.25 seconds extends beyond the standard upper limit, indicating potential pathology or conduction delay. Therefore, the specified range of 0.12

5. For a King LT Size 5 supraglottic airway, what height is it designed for?

A. 4-5 Feet

B. 5-6 Feet

C. 6+ Feet

D. 3-4 Feet

The King LT Size 5 supraglottic airway is specifically designed for adult patients who are taller than 6 feet. This size is used to accommodate individuals with a larger airway volume, which is necessary for effective ventilation and airway management in the prehospital setting. The device is engineered to fit the anatomical differences found in taller adults, ensuring that the device provides an adequate seal and allows for proper ventilation without causing trauma or discomfort. Understanding the appropriate sizing for supraglottic airways is crucial for paramedics, as the correct size impacts the effectiveness of airway management during emergencies. Using an airway that is too small may lead to inadequate ventilation, while one that is too large can cause injury or dislodgement. Therefore, recognizing that Size 5 is tailored for individuals over 6 feet helps paramedics make informed decisions when selecting airway equipment in diverse patient populations.

6. In which condition is nebulization contraindicated?

A. Patients with mild asthma

B. Patients with fever and suspected febrile respiratory illness outbreak

C. Patients with known allergies

D. Patients with obstructive sleep apnea

Nebulization is contraindicated in patients with fever and a suspected febrile respiratory illness outbreak due to concerns about aerosolizing infectious agents. When patients are experiencing a febrile respiratory illness, there is a risk of transmitting infections to healthcare providers and other patients through the nebulized mist. This is particularly important in outbreak situations, where respiratory pathogens like COVID-19 or influenza could be circulating. Aerosol-generating procedures can increase the risk of disease transmission, thus making nebulization an inappropriate choice in these scenarios. In contrast, nebulization can be an effective treatment for patients with mild asthma or known allergies, as it helps deliver medication directly to the airways. It can also be beneficial for individuals with obstructive sleep apnea, depending on their specific clinical situation. Therefore, understanding the context of nebulization and its implications on infection control is critical in making safe treatment decisions in emergency medical settings.

7. What is a contraindication for using a supraglottic airway?

A. Patient is conscious

B. Stridor

C. Low heart rate

D. Upper respiratory infection

A contraindication for using a supraglottic airway is present when there is stridor. Stridor indicates a potential upper airway obstruction or significant edema, leading to the risk of further complicating the airway situation. In such cases, using a supraglottic airway could exacerbate the obstruction, potentially causing airway compromise due to the device not being able to navigate through or above the blockage effectively. Patients with stridor typically require advanced airway management techniques that can ensure they are protected from further obstruction. While a conscious patient may indicate a risk for the use of a supraglottic airway, consciousness itself is not an absolute contraindication unless the patient's mental status affects their ability to manage an airway safely. A low heart rate could indicate a variety of conditions, but it alone does not necessarily contraindicate the use of a supraglottic airway. An upper respiratory infection may pose challenges, but it does not classify as an outright contraindication for supraglottic airway placement in most scenarios.

8. What is created when the foramen ovale closes?

A. A small valve

B. A septal defect

C. A fossa ovalis

D. A network of blood vessels

When the foramen ovale closes, it results in the formation of a fossa ovalis. This is a small depression in the interatrial septum of the heart, which is the wall that separates the left and right atria. During fetal development, the foramen ovale serves as an important pathway, allowing blood to bypass the non-functioning fetal lungs and flow directly from the right atrium to the left atrium. After birth, when the baby's lungs become functional and the pressure in the left atrium increases, the foramen ovale typically closes. Over time, the tissue of the heart where this opening was located becomes scar tissue, leading to the development of the fossa ovalis. The presence of this depression indicates that the opening has successfully closed, and it typically does not have any functional significance in adults. Understanding this anatomical change is essential for grasping how the circulatory system transitions from fetal to postnatal life.

9. In the case of a patient weighing 75kg, how much 50% dextrose will you administer based on the medical directive?

A. 50ml

B. 37.5g

C. 25g

D. 15g

In a medical context, particularly for cases of hypoglycemia, the administration of dextrose is typically calculated based on the patient's weight and the concentration of the dextrose solution. For a patient weighing 75 kg, the standard protocol is to administer dextrose at a specific dosage based on weight. The medical directive often specifies a dosage of dextrose in grams per kilogram of body weight. In this case, a common guideline for administering 50% dextrose is to give 0.5 to 1 gram per kilogram. For a 75 kg patient, administering 25 grams of dextrose is in line with this protocol, as it corresponds to 0.33 grams per kilogram. Therefore, the correct amount to administer, which is 25 grams, corresponds directly to maintaining safe and effective treatment for this patient. This dosage allows for the rapid correction of hypoglycemia, capitalizing on the properties of the 50% dextrose solution to swiftly elevate blood glucose levels.

10. Which of the following is a contraindication for administering Ibuprofen?

A. Previous use of Acetaminophen

B. Pregnant

C. History of mild headaches

D. Unaltered mental status

Administering Ibuprofen during pregnancy is contraindicated due to potential risks to both the mother and her developing fetus. Nonsteroidal anti-inflammatory drugs (NSAIDs), such as Ibuprofen, can affect fetal development, particularly during the third trimester, where they may lead to issues such as fetal renal dysfunction, oligohydramnios, and potential complications during delivery. Healthcare providers typically recommend alternatives like Acetaminophen for pain relief in pregnant individuals because it is generally considered safer during pregnancy, especially when addressing mild to moderate discomfort. The other options do not pose the same level of risk or contraindication for Ibuprofen use. Previous use of Acetaminophen does not impact the safety or efficacy of Ibuprofen. A history of mild headaches suggests a potential need for pain management rather than a contraindication. Unaltered mental status does not indicate any inherent risk or contraindication for using Ibuprofen, as it pertains more to the patient's consciousness and cognitive function rather than to the medication's safety profile.