

Care of Patients with Musculoskeletal Trauma Practice Test (Sample)

Study Guide



Everything you need from our exam experts!

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SAMPLE

Questions

SAMPLE

- 1. What is an important nursing intervention following a joint replacement surgery?**
 - A. Encouraging immediate weight-bearing as tolerated**
 - B. Implementing range of motion exercises as soon as possible**
 - C. Maintaining joint immobilization for several months**
 - D. Monitoring for any signs of infection and controlling pain**
- 2. How can you assess for the presence of osteoporosis in patients with multiple fractures?**
 - A. Through bone density scanning or DEXA scans**
 - B. By performing a physical exam for pain sensitivity**
 - C. Through patient history regarding family fractures**
 - D. Using a simple blood test for calcium levels**
- 3. What change should a patient notify the health care provider about after a below-knee amputation?**
 - A. Reduced pain at the incision site**
 - B. Increased mobility of the limb**
 - C. Observation of a large amount of serosanguineous or bloody drainage**
 - D. Improvement in appetite**
- 4. Which statement regarding chronic complications from fractures is accurate?**
 - A. "Fat embolism syndrome is a chronic complication."**
 - B. "Avascular necrosis can occur due to a lack of blood supply."**
 - C. "All fractures lead to immediate osteoporosis."**
 - D. "Hardware used in surgery prevents all complications."**
- 5. Which type of traction is specifically used to correct bone deformities of the lower extremities?**
 - A. Pelvic sling**
 - B. 90-90 traction**
 - C. Russell's traction**
 - D. Pelvic belt**

- 6. What type of documentation is critical after the initial assessment of musculoskeletal injuries?**
- A. Detailed assessment findings, patient's complaints, interventions taken, and the patient's response**
 - B. A summary of the patient's medical history**
 - C. Future treatment plans for the patient**
 - D. A report on the patient's home environment**
- 7. What physiological change due to compartment syndrome can lead to symptoms of flexed posture?**
- A. Decreased oxygen saturation**
 - B. Increased production of lactic acid**
 - C. Increased capillary permeability**
 - D. Release of histamines**
- 8. What is a common complication of fractures, especially open fractures?**
- A. Hemorrhage**
 - B. Infection**
 - C. Joint stiffness**
 - D. Malunion**
- 9. Which drug can cause seizures due to its toxic metabolites in older adults?**
- A. Tramadol**
 - B. Meperidine**
 - C. Morphine**
 - D. Ketorolac**
- 10. What can the presence of multiple fractures indicate about a patient's health?**
- A. Potential underlying conditions such as osteoporosis**
 - B. Improper healing of previous fractures**
 - C. Increased likelihood of arthritis**
 - D. General weakness in muscles**

Answers

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

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Explanations

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1. What is an important nursing intervention following a joint replacement surgery?

- A. Encouraging immediate weight-bearing as tolerated**
- B. Implementing range of motion exercises as soon as possible**
- C. Maintaining joint immobilization for several months**
- D. Monitoring for any signs of infection and controlling pain**

Following a joint replacement surgery, monitoring for signs of infection and controlling pain is vital for several reasons. First, surgical procedures carry the inherent risk of infection, which can compromise the healing process and lead to significant complications. Signs of infection may include increased redness, swelling, warmth, or drainage from the surgical site, as well as systemic symptoms like fever. Early detection and intervention are critical to prevent the spread of infection and ensure optimal recovery. Additionally, pain control post-surgery is essential for several aspects of the recovery process. Effective pain management allows the patient to participate in necessary rehabilitation, such as physical therapy and mobility exercises. If pain is not adequately controlled, it can lead to decreased range of motion, prolonged immobility, and even psychological effects such as anxiety or depression. While early weight-bearing, range of motion exercises, and joint immobilization are relevant considerations in the postoperative care plan, they are typically guided by specific protocols depending on the surgeon's preferences, the type of joint replaced, and the individual patient's condition. Prioritizing infection monitoring and pain control establishes a foundation for a safe and effective recovery journey following joint replacement surgery.

2. How can you assess for the presence of osteoporosis in patients with multiple fractures?

- A. Through bone density scanning or DEXA scans**
- B. By performing a physical exam for pain sensitivity**
- C. Through patient history regarding family fractures**
- D. Using a simple blood test for calcium levels**

Assessing for osteoporosis in patients who have suffered multiple fractures is best accomplished through bone density scanning or DEXA scans. These scans measure the density of bones and provide a quantitative assessment of bone strength, which is crucial in identifying osteoporosis. A lower bone density score indicates a higher risk of fractures, making DEXA an essential tool in both diagnosing osteoporosis and evaluating fracture risk in patients with a history of fractures. While reviewing family history for fractures can provide insights into possible genetic predisposition to osteoporosis, it does not directly measure bone density or strength. Similarly, a physical exam may help identify areas of sensitivity but does not provide a definitive diagnosis of osteoporosis. Lastly, calcium levels, measured through blood tests, do not directly correlate with bone density or osteoporosis since they can be maintained in cases of osteoporosis due to regulatory mechanisms. Therefore, the use of DEXA scans is the most effective and direct method for assessing osteoporosis in such patients.

3. What change should a patient notify the health care provider about after a below-knee amputation?
- A. Reduced pain at the incision site
 - B. Increased mobility of the limb
 - C. Observation of a large amount of serosanguineous or bloody drainage**
 - D. Improvement in appetite

After a below-knee amputation, the observation of a large amount of serosanguineous or bloody drainage is significant and warrants immediate attention from a health care provider. This type of drainage can indicate potential complications, such as bleeding, infection, or inadequate healing of the incision site. Monitoring the drainage from the surgical site is critical, as excessive bleeding can lead to serious health risks, including shock, and may require further medical intervention. In contrast, reduced pain at the incision site is generally expected as healing progresses, and increased mobility of the limb can also indicate that the patient is adapting well to the surgical changes. An improvement in appetite reflects overall recovery and health but does not typically signal a concern that necessitates urgent communication with a healthcare professional. Thus, the presence of excessive drainage is the most critical change that should be reported.

4. Which statement regarding chronic complications from fractures is accurate?
- A. "Fat embolism syndrome is a chronic complication."
 - B. "Avascular necrosis can occur due to a lack of blood supply."**
 - C. "All fractures lead to immediate osteoporosis."
 - D. "Hardware used in surgery prevents all complications."

The statement about avascular necrosis accurately reflects a potential chronic complication that arises from fractures. Avascular necrosis occurs when there is a loss of blood supply to a bone, leading to the death of bone tissue. This condition can occur after a fracture, especially if the blood vessels supplying the bone are damaged or if the fracture disrupts the blood supply. Over time, without adequate blood flow, the bone may weaken and collapse, resulting in pain, loss of function, and the potential need for surgical intervention. Considering the context, fat embolism syndrome typically presents acutely rather than as a chronic complication; it arises soon after a fracture, where fat globules enter the bloodstream and can lead to severe respiratory distress and other systemic issues. While fractures can contribute to a risk of osteoporosis, not all fractures lead to immediate osteoporosis, and the development of osteoporosis is influenced by various factors, including age, sex, and overall health. The statement about surgical hardware misleadingly suggests that it can prevent all complications; however, while it may aid in stabilization and proper healing, complications can still arise post-surgery. Therefore, the accuracy of the statement regarding avascular necrosis is reinforced by the understanding of how chronic complications develop in the context of fractures.

5. Which type of traction is specifically used to correct bone deformities of the lower extremities?

A. Pelvic sling

B. 90-90 traction

C. Russell's traction

D. Pelvic belt

Russell's traction is specifically designed to correct bone deformities of the lower extremities. This form of traction involves the use of a system where a pull is applied to the leg using weights and pulleys, allowing for alignment of the bones and reduction of deformities. It effectively maintains the alignment of the femur and is particularly useful for treating conditions such as fractures of the femur, knee injuries, or other lower extremity deformities that require continuous traction. The mechanism of Russell's traction enables both longitudinal and lateral force application, which promotes effective realignment of the limb. By maintaining proper positioning and alignment over time, Russell's traction can facilitate bone healing and correction of deformities without the need for more invasive surgical interventions. Other types of traction serve different purposes or may be designed for different anatomical areas or types of injuries. Understanding the specific applications and benefits of Russell's traction helps in managing lower extremity deformities effectively.

6. What type of documentation is critical after the initial assessment of musculoskeletal injuries?

A. Detailed assessment findings, patient's complaints, interventions taken, and the patient's response

B. A summary of the patient's medical history

C. Future treatment plans for the patient

D. A report on the patient's home environment

The documentation of detailed assessment findings, the patient's complaints, interventions taken, and the patient's response is crucial after the initial assessment of musculoskeletal injuries because it provides a comprehensive and accurate account of the patient's condition at that specific point in time. This thorough documentation serves multiple essential purposes. Firstly, it ensures continuity of care, allowing other healthcare providers to understand the baseline status and the evolution of the patient's condition over time. Secondly, it serves as a legal record of the care provided, which can be vital if any disputes arise regarding treatment. Thirdly, having a clear record of the patient's complaints and responses to interventions helps identify effective treatment strategies and adjust plans as necessary to optimize recovery. While other types of documentation, such as a summary of the patient's medical history and future treatment plans, are important, they do not capture the immediate details and dynamic aspects of the injury and initial care that are vital for ongoing management. Similarly, a report on the patient's home environment may provide context for discharge planning but does not serve the immediate clinical documentation needs following an injury assessment.

7. What physiological change due to compartment syndrome can lead to symptoms of flexed posture?

- A. Decreased oxygen saturation**
- B. Increased production of lactic acid**
- C. Increased capillary permeability**
- D. Release of histamines**

The physiological change associated with compartment syndrome that leads to symptoms of flexed posture is the increased production of lactic acid. Compartment syndrome occurs when increased pressure within a closed muscle compartment impairs blood flow, leading to ischemia and subsequent cellular injury. As cells undergo anaerobic metabolism due to inadequate oxygen supply, lactic acid is produced as a byproduct. The accumulation of lactic acid can cause metabolic acidosis, which not only contributes to pain and discomfort but also affects muscle function. When lactic acid builds up, it can lead to muscle weakness and fatigue, often resulting in a protective reflex in which the affected muscles contract, causing a flexed posture. This positioning may be an attempt to alleviate pain or protect the area from further injury. Regarding the other options, while decreased oxygen saturation, increased capillary permeability, and the release of histamines may occur during various pathological states, they do not directly relate to the characteristic flexed posture seen in compartment syndrome. Increased capillary permeability could lead to swelling, and decreased oxygen saturation indicates hypoxia, but neither of these conditions specifically produces the muscular response associated with flexed posture. Ultimately, the increased production of lactic acid is closely linked to the physiological changes that result in this distinct posture.

8. What is a common complication of fractures, especially open fractures?

- A. Hemorrhage**
- B. Infection**
- C. Joint stiffness**
- D. Malunion**

Infection is a common complication of fractures, particularly open fractures, because the skin is broken, allowing bacteria to enter the wound site. Open fractures expose the underlying bone and surrounding soft tissues directly to the external environment, significantly increasing the risk of microbial contamination. This can lead to a serious infection, which may compromise healing and could result in further complications if not addressed promptly. When managing an open fracture, it is essential to initiate appropriate antibiotic therapy, perform thorough debridement, and implement careful wound care to minimize infection risk. If infection occurs, it can lead to delayed healing, chronic symptoms, or necessitate surgical interventions to cleanse the area or even remove infected tissue. While hemorrhage is a concern in fractures due to potential blood vessel damage, joint stiffness can arise after immobilization and is more related to rehabilitation processes, and malunion involves healing of the bone in an improper alignment, these complications are typically not immediate concerns associated specifically with open fractures compared to the direct risk of infection.

9. Which drug can cause seizures due to its toxic metabolites in older adults?

- A. Tramadol**
- B. Meperidine**
- C. Morphine**
- D. Ketorolac**

The drug associated with seizures due to its toxic metabolites in older adults is meperidine. Meperidine is an opioid that is known to be less favorable for use in the elderly because it can lead to the accumulation of its active metabolite, normeperidine. This metabolite has a lower seizure threshold and can cause neurotoxic effects, including seizures, particularly in patients with renal impairment or in those taking the medication over extended periods. Elderly patients often have altered pharmacokinetics and pharmacodynamics due to age-related changes in metabolism and excretion, which increase the risk of adverse effects from medications like meperidine. In addition to its potential for causing seizures, meperidine has other concerning side effects compared to other opioids, which makes its use less common in geriatric populations. Understanding the importance of avoiding certain medications in older adults helps guide safe prescribing practices to prevent harmful reactions such as seizures.

10. What can the presence of multiple fractures indicate about a patient's health?

- A. Potential underlying conditions such as osteoporosis**
- B. Improper healing of previous fractures**
- C. Increased likelihood of arthritis**
- D. General weakness in muscles**

The presence of multiple fractures can indeed indicate potential underlying conditions such as osteoporosis. Osteoporosis is a condition characterized by decreased bone density and increased fragility, which makes bones more susceptible to fractures, even with minimal trauma. When multiple fractures occur, especially in a patient who is not involved in high-impact activities or who has not experienced significant trauma, it raises the suspicion of osteoporosis or another metabolic bone disorder. Identifying osteoporosis early is crucial because it allows for timely intervention to prevent future fractures, such as the implementation of lifestyle changes, nutritional modifications (like increased calcium and vitamin D intake), and pharmacological treatments aimed at increasing bone density. In contrast, other factors like improper healing of previous fractures or muscle weakness can be relevant in specific contexts, but they would not typically explain the occurrence of multiple fractures as directly as osteoporosis or a similar condition would.