

# HA SN MODEL SET EXAM 60 DAYS CHALLENGE FIRST AID AND BMP

December 2025

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## Questions and Explanations (First Aid and BMP)

**1. Which component of the chain of survival for an adult victim is most frequently delayed in out-of-hospital cardiac arrest?**

- A. Early access to emergency medical services (EMS)
- B. Early CPR (Cardiopulmonary Resuscitation)
- C. Rapid defibrillation
- D. Effective post-cardiac arrest care

**Correct Answer: C**

**Explanation:** Rapid defibrillation is often the most delayed step, especially in public settings, as AEDs (Automated External Defibrillators) may not be immediately available or staff trained to use them. Early CPR (B) is crucial but often begins first, while rapid defibrillation offers the best chance for survival in ventricular fibrillation.

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**2. In managing a victim with an open fracture and severe bleeding, which action takes immediate priority after ensuring scene safety?**

- A. Immobilizing the fracture with a splint
- B. Checking for a pulse distal to the injury
- C. Applying direct pressure to control the hemorrhage
- D. Cleaning the wound and applying an antiseptic dressing

**Correct Answer: C**

**Explanation:** Control of severe hemorrhage (bleeding) is always the immediate priority in first aid after ensuring safety, as life-threatening blood loss takes precedence over splinting (A) or preventing infection (D). The mnemonic C-A-B (Circulation/Compression, Airway, Breathing) emphasizes circulation first.

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**3. The standard ratio of chest compressions to rescue breaths for single-rescuer adult CPR (outside a hospital setting) is:**

- A. 15 compressions to 2 breaths
- B. 30 compressions to 2 breaths
- C. 30 compressions to 5 breaths
- D. 5 compressions to 1 breath

**Correct Answer: B**

**Explanation:** The current standard ratio for single-rescuer adult CPR is 30 compressions followed by 2 rescue breaths. The compression depth should be at least 2 inches (5 cm) and rate 100–120 per minute.

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**4. Which of the following is the primary goal of the secondary survey (Head-to-Toe examination) in a trauma patient?**

- A. Establish airway and manage life-threatening bleeding
- B. Identify and manage non-life-threatening injuries
- C. Prepare the patient for immediate surgical intervention
- D. Determine the patient's Glasgow Coma Scale (GCS) score only

**Correct Answer: B**

**Explanation:** The primary survey focuses on immediate life-threatening issues (Airway, Breathing, Circulation, Disability, Exposure—A). The secondary survey is a systematic head-to-toe assessment to find and manage all other non-life-threatening injuries.

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**5. A patient suffering from a deep chemical burn to the eye should immediately be treated by:**

- A. Applying a sterile eye pad and waiting for EMS
- B. Flushing the eye continuously with copious amounts of water for at least 15–20 minutes
- C. Applying a neutralizing chemical solution
- D. Wiping the area gently with a dry, clean cloth

**Correct Answer: B**

**Explanation:** For chemical burns to the eye, immediate and prolonged flushing with lukewarm running water is the most critical first aid step to remove the chemical and stop the burn process. Neutralizing solutions (C) should never be used as they can cause a secondary heat reaction.

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**6. In the triage system, a patient with a tension pneumothorax or major hemorrhage should be classified under which category?**

- A. Green (Minor)
- B. Yellow (Delayed)
- C. Red (Immediate)
- D. Black (Expectant)

**Correct Answer: C**

**Explanation:** A tension pneumothorax or major hemorrhage is a life-threatening condition requiring immediate intervention (Red tag) to prevent rapid deterioration and death. Green tags are for minor injuries; Yellow for serious but non-life-threatening injuries.

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**7. The preferred route for administering epinephrine in a child experiencing anaphylactic shock in a pre-hospital setting is:**

- A. Intravenous (IV)
- B. Subcutaneous (SC)
- C. Intramuscular (IM)
- D. Intradermal (ID)

**Correct Answer: C**

**Explanation:** Intramuscular (IM) injection, typically in the anterolateral aspect of the thigh (mid-thigh), provides the most rapid and reliable absorption of epinephrine in an emergency setting like anaphylaxis. IV is harder to establish and SC/ID absorption is too slow.

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**8. The most effective method for sterilizing heat-sensitive instruments like endoscopes in a primary healthcare setting is:**

- A. Boiling for 20 minutes
- B. Autoclaving (steam sterilization)
- C. High-level chemical disinfection (e.g., glutaraldehyde, hydrogen peroxide)
- D. Dry heat sterilization

**Correct Answer: C**

**Explanation:** Autoclaving (B) and Dry Heat (D) are high-level sterilization methods but damage heat-sensitive instruments. High-level chemical disinfection is the preferred method for sterilizing or achieving high-level disinfection for flexible endoscopes.

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**9. Which type of shock is characterized by an allergic reaction leading to massive vasodilation and increased capillary permeability?**

- A. Cardiogenic shock
- B. Neurogenic shock
- C. Hypovolemic shock
- D. Anaphylactic shock

**Correct Answer: D**

**Explanation:** Anaphylactic shock (D) is a distributive shock caused by a severe allergic reaction releasing mediators (histamine, etc.) that cause widespread vasodilation and leakage of fluid from blood vessels (capillary permeability), leading to a drastic drop in blood pressure.

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**10. What is the primary intervention for a suspected narcotic (opioid) overdose victim who is breathing slowly and unresponsive?**

- A. Administering oral glucose solution
- B. Providing artificial ventilation and administering Naloxone (if available)
- C. Inducing vomiting to clear the substance
- D. Applying a tourniquet to restrict blood flow

**Correct Answer: B**

**Explanation:** Opioid overdose causes severe respiratory depression. The priority is to maintain breathing (artificial ventilation/rescue breaths) and administer the opioid antagonist, Naloxone, if available. Inducing vomiting (C) is contraindicated.

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**11. In pediatric foreign body airway obstruction (choking) for a child over 1 year, the first aid maneuver involves:**

- A. 5 back blows followed by 5 chest thrusts
- B. Abdominal thrusts (Heimlich maneuver)
- C. Blind finger sweep of the mouth
- D. Head tilt-chin lift followed by rescue breaths

**Correct Answer: B**

**Explanation:** For children over 1 year (and adults), abdominal thrusts (Heimlich maneuver) are performed to dislodge the foreign body. Blind finger sweeps (C) are dangerous and should be avoided. The other options are for infants or are part of CPR.

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**12. Which form of medical waste should be specifically disposed of in a puncture-proof container?**

- A. Contaminated gauze and cotton swabs
- B. Expired medications
- C. Used needles, syringes, and lancets (Sharps)
- D. Plastic tubing from IV sets

**Correct Answer: C**

**Explanation:** Used needles, syringes, and lancets (C), collectively known as sharps, must be placed in rigid, puncture-proof containers (sharps containers) to prevent needle-stick injuries to healthcare workers and waste handlers.

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**13. The primary purpose of applying a sling after an arm fracture is:**

- A. To reduce swelling by elevating the limb
- B. To immobilize the shoulder and support the weight of the injured arm
- C. To provide traction and realignment of the bone fragments
- D. To control internal bleeding

**Correct Answer: B**

**Explanation:** A sling's primary role is support and immobilization. It helps prevent further injury by holding the fractured arm close to the body and taking the weight off the injury site, aiding patient comfort and recovery.

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**14. For a victim presenting with symptoms of a stroke (e.g., facial droop, arm drift, slurred speech), the most critical immediate action is:**

- A. Administering Aspirin to prevent blood clotting
- B. Immediately transporting the patient to a facility capable of stroke evaluation (e.g., CT scan)
- C. Offering water to check swallowing ability
- D. Placing the patient in the Trendelenburg position

**Correct Answer: B**

**Explanation:** Time is brain. The most critical intervention is rapid transport to a stroke center for definitive diagnosis (CT/MRI) and potential thrombolytic therapy, which has a narrow time window. Aspirin (A) should only be given under medical direction after ruling out hemorrhagic stroke.

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**15. In the management of a severe epistaxis (nosebleed) that does not stop with direct pressure, the nurse should immediately prepare for:**

- A. Insertion of an artificial airway
- B. Nasal packing
- C. Application of a cold pack to the nape of the neck only
- D. Measuring the patient's central venous pressure (CVP)

**Correct Answer: B**

**Explanation:** If direct pressure (pinching the nostrils) fails to stop a severe nosebleed, the next step is nasal packing (B) to apply pressure directly to the bleeding site inside the nose. Airway (A) and CVP measurement (D) are usually not necessary for standard epistaxis.

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**16. What is the minimal required time for tetanus toxoid administration following a contaminated wound injury if the patient's immunization status is unknown?**

- A. Within 6 hours
- B. Within 12 hours
- C. Within 48 hours
- D. Within 7 days

**Correct Answer: C**

**Explanation:** Tetanus prophylaxis should ideally be given within 24 hours, but the acceptable range is up to 48 hours. After 48 hours, passive immunization (Tetanus Immunoglobulin or TIG) may be required depending on the wound type and patient history.

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**17. According to the Rule of Nines for adults, what percentage of the Total Body Surface Area (TBSA) is represented by the entire anterior trunk (chest and abdomen)?**

- A. 9%
- B. 18%
- C. 27%
- D. 36%

**Correct Answer: B**

**Explanation:** The anterior trunk (chest and abdomen) accounts for 18% TBSA in adults. Head/Neck (9%), Each Arm (9%), Posterior Trunk (18%), Each Leg (18%), Perineum (1%).

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**18. The primary indication for applying a triangular bandage as a broad sling is to:**

- A. Provide traction to the injured limb
- B. Immobilize the shoulder and support the weight of the injured arm.
- C. Control severe bleeding from the forearm.
- D. Act as a tourniquet for amputation.

**Correct Answer: B**

**Explanation:** A broad sling supports the arm and takes the weight off the injury, particularly effective for injuries to the wrist or elbow, providing immobilization and comfort.

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**19. In the management of a chemical powder exposure to the skin, the immediate first aid priority is to:**

- A. Flush immediately with large amounts of water.
- B. Apply a neutralising agent like vinegar or baking soda.
- C. Brush off the powder before flushing with water.
- D. Cover the area with a dry sterile dressing.

**Correct Answer: C**

**Explanation:** Water can activate certain chemical powders (e.g., dry lime or elemental metals) into corrosive solutions, causing a thermal injury. Always brush off dry chemicals first, then flush.

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**20. What type of wound is characterized by a scraping or rubbing away of the skin's surface layers?**

- A. Laceration
- B. Puncture
- C. Incision
- D. Abrasion

**Correct Answer: D**

**Explanation:** An abrasion is a superficial injury where the epidermis is scraped off. Laceration is a deep, jagged cut; Incision is a clean cut.

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**21. The cardinal rule for splinting a suspected fracture is to immobilize:**

- A. The injured bone only.
- B. The joint above and the joint below the injury site.
- C. Only the proximal joint.
- D. Only the distal joint.

**Correct Answer: B**

**Explanation:** Immobilizing the joints above and below the fracture site ensures that movement is restricted, preventing further damage to tissues, blood vessels, and nerves.

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**22. Which sign indicates potential compartmental syndrome following a severe limb injury?**

- A. Mild swelling that subsides with elevation.
- B. Pain relieved by standard analgesics.
- C. Pain disproportionate to the injury and unrelieved by pain medication.
- D. Lack of bruising around the injury site.

**Correct Answer: C**

**Explanation:** Compartmental syndrome involves increased pressure within a muscle compartment, leading to severe, agonizing pain that is often much worse than expected and not relieved by pain medication (one of the '5 Ps': Pain, Pallor, Paresthesia, Pulselessness, Paralysis).

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**23. For a closed (simple) fracture of the lower leg, the nurse must check the pulse and sensory function:**

- A. Only after the patient reports increased pain.
- B. Only before applying the splint.
- C. Before and after splinting.
- D. Every 4 hours post-splinting.

**Correct Answer: C**

**Explanation:** Checking neurovascular status (pulse, sensation, color, temperature, capillary refill) both before and after applying a splint is mandatory to ensure the procedure itself has not compromised circulation or nerve function.

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**24. The most appropriate first aid for a sprained ankle is best summarized by the acronym:**

- A. P.R.I.C.E. (Protection, Rest, Ice, Compression, Elevation).
- B. C.A.B. (Compressions, Airway, Breathing).
- C. A.B.C.D. (Airway, Breathing, Circulation, Disability).
- D. S.T.A.R.T. (Simple Triage and Rapid Treatment).

**Correct Answer: A**

**Explanation:** PRICE or RICE (Rest, Ice, Compression, Elevation) is the standard treatment protocol for soft tissue injuries like sprains and strains.

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**25. What is the immediate and most life-threatening risk associated with an unstable pelvic fracture?**

- A. Neurological deficit in the lower extremities.
- B. Severe internal bleeding (hemorrhage) leading to hypovolemic shock.
- C. Infection due to closeness to the perineum.
- D. Difficulty in voiding urine.

**Correct Answer: B**

**Explanation:** The pelvis is highly vascular. Instability can lead to massive, life-threatening internal hemorrhage and hypovolemic shock. Minimal movement and stabilization are paramount.

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**26. A diabetic patient who is conscious but behaving confusedly and sweating profusely should be immediately given:**

- A. A dose of their insulin injection.
- B. Any readily available sugary drink or food.
- C. Plenty of plain water to dilute the sugar.
- D. A complex carbohydrate like brown rice.

**Correct Answer: B**

**Explanation:** These symptoms strongly suggest hypoglycemia (low blood sugar), which requires rapid intervention. Giving sugar immediately is the first aid priority for a conscious patient, as hyperglycemia (high sugar) takes longer to cause confusion.

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**27. If a person is experiencing a generalized tonic-clonic seizure, the first aid provider should primarily focus on:**

- A. Holding them down to stop the movement.
- B. Inserting a spoon or padded object into their mouth.
- C. Protecting the person's head and clearing the surrounding area of hazards.
- D. Calling EMS only if the seizure lasts less than 2 minutes.

**Correct Answer: C**

**Explanation:** The priority is safety—preventing physical injury during the convulsions. Do not restrain the person or place anything in their mouth.

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**28. For a patient who has fainted (syncope) but is now conscious, the recommended recovery position involves:**

- A. Sitting the person upright immediately.
- B. Laying the person down with feet elevated 12 inches.
- C. Placing the person on their side (Recovery Position).
- D. Applying a cold compress to the forehead.

**Correct Answer: B**

**Explanation:** Syncope is often caused by temporary cerebral hypoperfusion (lack of blood flow to the brain). Elevating the feet helps restore venous return and blood flow to the head.

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**29. What is the initial action for managing a heat stroke victim?**

- A. Encouraging the patient to drink sports drinks.
- B. Rapidly cooling the body by spraying with water and fanning.
- C. Giving an analgesic for the headache.
- D. Covering the patient with a blanket to prevent shivering.

**Correct Answer: B**

**Explanation:** Heat stroke is a medical emergency characterized by a core temperature above 40°C. Immediate, aggressive external cooling (wetting and fanning, ice packs in armpits/groin) is required to prevent organ damage.

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**30. When assisting a victim of suspected poisoning, what is the most important information to gather immediately?**

- A. The victim's body weight.
- B. The patient's last meal.
- C. The type and amount of substance ingested.
- D. The time of the last bowel movement.

**Correct Answer: C**

**Explanation:** Identifying the substance is critical because treatment (antidotes, gastric lavage, observation) is highly specific to the type of toxin. The dose ingested also determines the sever-

ity.

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**31. In an unresponsive adult with suspected head or neck trauma, which technique should be used to open the airway?**

- A. Head-tilt, chin-lift.
- B. Jaw-thrust maneuver.
- C. Finger sweep.
- D. Tracheal pull.

**Correct Answer: B**

**Explanation:** The jaw-thrust maneuver opens the airway while minimizing movement of the cervical spine, which is crucial when spinal trauma is suspected. The head-tilt/chin-lift (A) is the standard method for non-trauma patients.

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**32. What is the gold standard for achieving sterilization (killing all microorganisms, including spores) for heat-tolerant surgical instruments?**

- A. Boiling.
- B. Autoclaving (Moist Heat Sterilization).
- C. High-level disinfection.
- D. UV light exposure.

**Correct Answer: B**

**Explanation:** Sterilization is the complete destruction of all forms of microbial life, including spores. Autoclaving (high-pressure saturated steam) is the most reliable method.

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**33. The proper technique for applying a bandage to a large burn area should aim to:**

- A. Apply direct pressure to stop fluid loss.
- B. Cover the wound loosely with a clean, non-adherent dressing.
- C. Break any blistered skin before dressing.
- D. Wrap the bandage tightly to compress the burn area.

**Correct Answer: B**

**Explanation:** The dressing should prevent infection but must not stick (non-adherent) and must be applied loosely to accommodate swelling and minimise pain. Blisters should generally be left intact.

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**34. Which level of infection control is adequate for cleaning intact skin before a non-invasive procedure, like drawing blood?**

- A. Sterilisation.
- B. High-level disinfection.
- C. Antiseptic.
- D. Asepsis.

**Correct Answer: C**

**Explanation:** Antiseptics are chemicals applied to living tissue (skin) to reduce the microbial count. Disinfectants are for inanimate objects. Asepsis refers to the practice of maintaining a clean environment.

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**35. The primary indication for using the recovery position (lateral recumbent position) in an unconscious but breathing patient is to:**

- A. Increase blood pressure.
- B. Prevent airway obstruction from the tongue or aspiration of vomit.

- C. Make the patient more comfortable.
- D. Reduce spinal cord movement.

**Correct Answer: B**

**Explanation:** Placing the patient on their side allows fluids (vomit, blood) to drain from the mouth and prevents the tongue from blocking the pharynx, protecting the airway.

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**36. What is the recommended chest compression depth for an infant (less than 1 year old) during CPR?**

- A. 1 inch (2.5 cm).
- B. Approximately 1.5 inches (4 cm).
- C. 2 inches (5 cm).
- D. 2.4 inches (6 cm).

**Correct Answer: B**

**Explanation:** Depth should be at least one-third the depth of the chest, which is approximately 1.5 inches (4 cm) for an infant.

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**37. When performing rescue breaths on an infant, the rescuer should cover:**

- A. The infant's mouth only.
- B. The infant's nose only.
- C. The infant's mouth and nose simultaneously.
- D. Neither, only provide chest compressions.

**Correct Answer: C**

**Explanation:** Due to the small size of the infant's face, the rescuer should seal their mouth over both the infant's mouth and nose to ensure effective ventilation.

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**38. The safest and most common site for intramuscular (IM) injections in toddlers and children is the:**

- A. Dorsogluteal muscle (buttock).
- B. Deltoid muscle (upper arm).
- C. Vastus Lateralis muscle (thigh).
- D. Ventrogluteal site.

**Correct Answer: C**

**Explanation:** The Vastus Lateralis muscle is large, well-developed even in infants, and avoids major nerves and blood vessels typically found in the gluteal or deltoid areas in younger children. The dorsogluteal site is contraindicated in children under 3 due to the risk of sciatic nerve injury.

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**39. A child presents with stridor and drooling after suddenly becoming distressed. The nurse suspects epiglottitis. The priority action is:**

- A. Immediately insert a tongue depressor to inspect the throat.
- B. Attempt to suction the posterior pharynx.
- C. Maintain a position of comfort and avoid procedures that might agitate the child.
- D. Administer high-flow oxygen via a non-rebreather mask.

**Correct Answer: C**

**Explanation:** Epiglottitis can lead to rapid and complete airway occlusion. Agitation or attempting to visualize the throat (A) can cause immediate laryngospasm. The priority is minimizing distress and preparing for definitive airway management.

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**40. What is the primary difference in the compression technique between one-rescuer and two-rescuer infant CPR?**

- A. One-rescuer uses the heel of the hand; two-rescuers use two fingers.
- B. The ratio changes from 30:2 to 15:2.
- C. One-rescuer uses two fingers; two-rescuers use the two-thumb encircling hand technique.
- D. Compression depth is reduced in two-rescuer CPR.

**Correct Answer: C**

**Explanation:** While the ratio remains 30:2 for a single lay rescuer, the preferred professional technique (two-rescuer) uses the two-thumb encircling hand technique, which is proven to provide better blood pressure.

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**41. When preparing an IV site, the most effective cleaning pattern using antiseptic swabs (like Chlorhexidine) is:**

- A. Circular motion from the center outward.
- B. Back and forth rubbing motion for 30 seconds, allowing to air dry.
- C. A quick swipe across the site in one direction.
- D. Wiping gently in a circular motion and immediately inserting the needle.

**Correct Answer: B**

**Explanation:** Chlorhexidine (and many other modern antiseptics) requires friction (rubbing) to penetrate the skin and then needs to air dry completely to ensure maximum antimicrobial action.

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**42. Phlebitis (inflammation of the vein) related to IV therapy is primarily identified by which sign?**

- A. Swelling, coolness, and pallor around the site.
- B. Redness, pain, and a palpable cord (hardened vein) along the vein path.
- C. Increased heart rate and shortness of breath.
- D. Generalized rash and fever.

**Correct Answer: B**

**Explanation:** Redness, tenderness/pain, and hardness along the vein are the classic signs of phlebitis. Option A describes infiltration or extravasation. Options C and D suggest systemic reactions.

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**43. What is the critical first step if an air embolism is suspected during IV infusion?**

- A. Slow the infusion rate.
- B. Start a second IV line immediately.
- C. Clamp the IV line immediately and place the patient in the left lateral Trendelenburg position.
- D. Administer a rapid fluid bolus.

**Correct Answer: C**

**Explanation:** Clamping the line stops the air entry. The left lateral Trendelenburg position traps the air bubble in the right ventricle, preventing it from entering the pulmonary circulation (pulmonary embolism).

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**44. Before initiating blood transfusion, which crucial check is performed by two qualified healthcare professionals?**

- A. Checking the patient's blood pressure only.
- B. Ensuring the IV catheter size is at least 22G.
- C. Matching the blood unit number, blood type, and patient identity information.

D. Checking the patient's oxygen saturation level.

**Correct Answer: C**

**Explanation:** This dual verification is mandatory to prevent a potentially fatal ABO incompatibility transfusion reaction. It is the single most critical safety check.

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**45. When performing manual ventilation using a Bag-Valve Mask (BVM), what is the most common reason for inadequate ventilation?**

- A. Using a bag that is too small.
- B. Inadequate squeezing force on the bag.
- C. Improper mask seal on the face.
- D. Exhaling too quickly.

**Correct Answer: C**

**Explanation:** A tight seal is necessary between the mask and the face to ensure that the delivered air enters the patient's lungs and not the surrounding air. The C-E technique is used to maintain this seal.

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**46. In a mass casualty incident (MCI) using the START triage system, a victim who is breathing but unresponsive and has major injuries that cannot be fixed in the field should be tagged as:**

- A. Green (Minor).
- B. Yellow (Delayed).
- C. Red (Immediate).
- D. Black (Expectant/Deceased).

**Correct Answer: D**

**Explanation:** Black is for those unlikely to survive given limited resources (e.g., profound head trauma, severe burns, or patients who fail to respond to simple airway maneuvers). Resources are focused on Red and Yellow.

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**47. The ethical principle that emphasizes 'doing no harm' to the patient is known as:**

- A. Beneficence.
- B. Autonomy.
- C. Justice.
- D. Non-maleficence.

**Correct Answer: D**

**Explanation:** Non-maleficence means avoiding actions that cause harm. Beneficence is doing good; Autonomy is self-determination (patient choice); Justice is fairness in resource allocation.

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**48. What is the safest location for a healthcare worker to stand when assisting a patient who is actively falling?**

- A. In front of the patient to stop the fall completely.
- B. Behind the patient, guiding the patient's body gently down while protecting their head.
- C. To the side, bracing against the wall.
- D. Quickly calling for help before touching the patient.

**Correct Answer: B**

**Explanation:** The worker should never try to fully stop the fall to avoid personal injury (e.g., back injury). The priority is controlling the descent and protecting the head from impact.

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**49. The primary action to ensure safety when using an oxygen cylinder in a clinical setting**

is:

- A. Storing it horizontally under the bed.
- B. Securing the cylinder upright with chains or a holder.
- C. Opening the valve completely when in use.
- D. Keeping the cylinder close to heat sources.

**Correct Answer:** B

**Explanation:** An unsecured cylinder can fall, potentially shearing off the valve and turning the tank into a dangerous projectile, which is a major safety hazard.

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**50. What is the proper placement for a chemical indicator strip when steam sterilizing surgical packs in an autoclave?**

- A. Taped to the outside of the pack.
- B. Inside the center of the surgical pack where steam penetration is most difficult.
- C. Taped to the ceiling of the autoclave chamber.
- D. Placed loosely on the top shelf.

**Correct Answer:** B

**Explanation:** The indicator strip must be placed in the hardest area for steam to penetrate (the center of the pack) to confirm that the sterilization conditions were met throughout the entire load.

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