Arrow® EZ-IO® Intraosseous Vascular Access System

1. Which of the statements concerning placement of intraosseous (IO) access using the Arrow® EZ-IO® Intraosseous Vascular Access System are correct?
   a) Avoid excessive pressure on driver during insertion
   b) Apply the EZ-Stablizer® Dressing after removal of the stylet
   c) The EZ-Connect® extension set should be primed
   d) Monitor the extremity/site frequently for signs of complications
   e) All of the above

2. For patients that respond to pain, consider using 2% lidocaine (preservative and epinephrine free) IO prior to initial flush following your facility protocol.
   a) True
   b) False

3. Intraosseous pain management for patients who are alert or responsive to pain may include regular periodic assessment for pain response AND PRN infusions of 2% lidocaine (preservative and epinephrine free) following facility protocols.
   a) True
   b) False

4. The Arrow® EZ-IO® Intraosseous Vascular Access System may be considered for use in the following situations/patients:
   a) Anytime vascular access is difficult
   b) When there is an urgent, emergent or medically necessary need for vascular access
   c) As a bridge to a central venous catheter or PICC placement
   d) Answers a+b+c above

5. When the driver is unavailable or inoperable, manual insertion may be utilized to accomplish intraosseous access.
   a) True
   b) False

6. Which of the following is NOT a contraindication for use:
   a) Infection at the insertion site
   b) Recent fracture of the target bone
   c) Previous intraosseous access or attempted access in target bone within 48 hours
   d) Presence of prosthesis or hardware at insertion site
   e) Anticoagulant use by patient

7. You have inserted the needle set into the soft tissue and have not reached the bone, and cannot see a black line on the needle remaining outside the patient's skin. You should choose a longer needle length or consider selecting a different site.
   a) True
   b) False

8. In the event of an emergency, product failure, or need for immediate assistance; clinicians can reach a Teleflex clinician knowledgeable about the Arrow® EZ-IO® Intraosseous Vascular Access System by calling 800-680-4911 or +1-800-680-4911 outside the US.
   a) True
   b) False

9. Optimal flow rates can be obtained using gravity drip rates.
   a) True
   b) False

10. A rapid syringe bolus (flush) via the intraosseous access will facilitate optimal flow.
   a) True
   b) False

11. Several studies and articles suggest the proximal humerus insertion site may be a superior site for flow rates, drug delivery, and management of infusion pain and generally has a faster flow rate compared to tibial insertion sites.
   a) True
   b) False

12. Insertion of intraosseous access using the Arrow® EZ-IO® Intraosseous Vascular Access System is a sterile procedure requiring sterile gloves, mask and gown.
   a) True
   b) False

13. The 45 mm needle set is recommended for proximal humerus insertion on patients weighing greater than 40 kg.
   a) True
   b) False

14. Pain management for patients who are alert/responsive to pain may include (select all that apply):
   a) Regular assessment for pain response
   b) One time only administration of 2% lidocaine
   c) 2% lidocaine per MD order/facility protocol
   d) Pain should not be an issue, there is no perceivable pain

15. Care and maintenance of the insertion site while the Arrow® EZ-IO® Intraosseous Vascular Access System access is in place includes (select all that apply):
   a) Securing with an EZ-Stablizer® Dressing
   b) Periodic, regular assessment of the site
   c) Soaking the driver in antimicrobial solutions between use
   d) Identifying how long the needle should remain in place

16. If you are unable to aspirate blood when confirming placement, you should attempt to flush the intraosseous access while assessing for evidence of extravasation.
   a) True
   b) False

17. The EZ-Connect® Extension Set must be primed before attaching to the intraosseous access; priming volume is approximately:
    a) 1.0 mL
    b) 0.5 mL
    c) 0.25 mL
    d) None of the above

18. Lab specimens cannot be drawn from an intraosseous access.
    a) True
    b) False

19. The 25 mm needle set can ONLY be used in adult patients.
    a) True
    b) False

20. To remove the catheter, attach a Luer-lock syringe to the hub and rotate the syringe and catheter clockwise while pulling straight out.
    a) True
    b) False

The use of any medication, including lidocaine, given IV or IO is the responsibility of the treating physician, medical director or qualified prescriber and not an official recommendation of Teleflex Incorporated or its subsidiaries. Teleflex is not the manufacturer of lidocaine, and the user should be familiar with the manufacturer's instructions or directions for use for all indications, side-effects, contraindications, precautions and warnings of lidocaine. Teleflex disclaims all liability for the use, application or interpretation of the use of this information in the medical treatment of any patient. Lidocaine dosing recommendations were developed based on research; for additional information, please visit www.eziocomfort.com.

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