QUIZ

1. Which Central Venous Catheter site is the easiest to access in a code situation?

a) Subclavian
b) Internal Jugular
c) Femoral
d) PICC (peripherally inserted central venous catheter)

CORRECT ANSWER: C

2. Which of the following CVC types is best suited for high volume resuscitation?

a) Tunneled Hickman catheter
b) Triple lumen catheter
c) Introducer "sheath type" catheter (Cordis)
d) Infusaport

CORRECT ANSWER: C

3. Which of the following is NOT an indication for central venous catheter placement?

a) Hemodynamic monitoring in the patient whose volume status cannot be otherwise measured
b) Administration of total parenteral nutrition (TPN)
c) Hemodialysis
d) Need for long-term IV access for frequent blood draws

CORRECT ANSWER: D

4. Which of the following is an absolute contraindication to CVC placement?

a) Venous Thrombosis of the designated vessel
b) Coagulopathy
c) Lymphadenopathy of the ipsilateral limb
d) Active bloodstream infection

CORRECT ANSWER: A

5. Which of the following is not a relative contraindication to CVC placement?
a) Severe Coagulopathy
b) Inability to tolerate Trendelenburg's (head down) position
c) Patient on positive pressure ventilation
d) Combative patient
CORRECT ANSWER: C

6. Which of the following options for long-term (greater than 7 days) IV access has the highest incidence of infection?

a) Non-tunneled Central Venous Catheterization (RIGHT ANSWER)
b) Tunneled CVC placement
c) Peripheral IV access
d) PICC (peripherally inserted central venous catheter)

CORRECT ANSWER: A

7. Which of the following CVC types is best suited for short-term administration of multiple, incompatible medications?

a) Tunneled Hickman catheter
b) Triple-lumen catheter
c) Introducer "sheath-type" catheter (Cordis)
d) Infusaport (Port-a cath)

CORRECT ANSWER: B

8. Which Central Venous Catheter site has the highest rate of infection?
a) Subclavian
b) Internal Jugular
c) Femoral
d) PICC (peripherally inserted central venous catheter)

CORRECT ANSWER: C

9. Which Central Venous Catheter site has the lowest rate of infection?

a) Subclavian
b) Internal Jugular
c) Femoral

CORRECT ANSWER: A

10. Which Central Venous Catheter site has the highest rate of pneumothorax?

a) Subclavian
b) Internal Jugular
c) Femoral
d) PICC (peripherally inserted central venous catheter)

CORRECT ANSWER: A

11. Which of the following is NOT true regarding patient positioning for IJ and subclavian CVC placement?

a) The patient may be in a supine position during site preparation
b) The patient should be moved to Trendelenburg's position when the vein is accessed
c) A shoulder roll helps ease placement of a CVC
d) ECG and 02 saturation monitoring is required

CORRECT ANSWER: C

12. Adequate draping of the surgical "field" must include:

a) Sterile towels to square off the neck, upper chest, and sternal notch
b) A full body drape with an access window over the neck and upper chest
c) Two ¾ sheets to cover the arms and feet
d) A sterile sheet to bridge the gap from the catheter tray to the patient

CORRECT ANSWER: B

13. Initial access to the internal jugular vein should be planned and evaluated with US:

a) Between the two heads of the sternocleidomastoid
b) Lateral to the sternocleidomastoid
c) Medial to the sternocleidomastoid
d) Through the belly of the sternocleidomastoid

CORRECT ANSWER: A

14. Each of the following increases the diameter of the vein except:
a) Hypovolemia
b) Congestive heart failure
c) Trendelenburg's (head down) position
d) Valvular heart disease

CORRECT ANSWER: A

15. Which of the following is NOT true regarding ultrasound identification of the internal jugular vein?

a) The surface anatomy should be used to find the approximate location of the vein before using the ultrasound
b) The vein is medial to the artery
c) The vein is more superficial than the artery
d) The artery is pulsatile

CORRECT ANSWER: B

16. On placement of an internal jugular CVC, the needle should:

a) Enter at 15° to the skin
b) Be inserted at least 3cm
c) Be inserted at the apex of the triangle formed by the two heads of the sternocleidomastoid
d) Be aimed toward the sternal notch

CORRECT ANSWER: C

17. Which of the following does not suggest placement of the catheter into an arterial system?

a) Return of pulsatile bloodflow
b) Manometry pressure of 14mmHg
c) Ultrasound image of needle passing into non-compressible vessel
d) Filling of syringe without aspiration

CORRECT ANSWER: B

18. In order to dilate the skin and soft tissue, which of the following steps is accurate?

a) The skin nick should not penetrate the dermis, to prevent injury to deep structures
b) The dilator should be advanced to its hub
c) Additional local anesthetic may be required
d) The guidewire is removed once the dilator is in place

CORRECT ANSWER: C

19. Post-procedure Chest X-Ray can help demonstrate all of the following except:

a) Hemothorax
b) Line Position
c) Air Embolism
d) Inadvertant arterial placement

CORRECT ANSWER: C

20. Which of the following is true regarding post-placement management of Central Venous Catheters?

a) Lines should be changed routinely after 7 days to prevent infection
b) Patients with femoral CVCs may be allowed to ambulate without restriction
c) Lines placed in emergent settings should be replaced within 24 hours

CORRECT ANSWER: C

21. During catheter removal of subclavian or internal jugular catheters, all of the following are true except:

a) The patient should be in Trendelenburg (head-down) position
b) Awake patients should be at maximal expiration
c) Intubated patients under positive pressure ventilation should be at maximal lung expansion.
d) All line tips should be routinely cultured to examine for signs of colonization

CORRECT ANSWER: D

22. The needle is advanced under ultrasound guidance, but arterial puncture is suspected. The patient has normal coagulation parameters. The proper course of action is to:

a) Remove the needle and hold pressure 5-10 minutes, move to another site
b) Remove the needle and hold pressure 5-10 minutes, continue at same site
c) Remove the needle and immediately continue at same site
d) Leave the needle in place and call attending or vascular surgery for backup

CORRECT ANSWER: A

23. The tract is dilated and the catheter is introduced but arterial puncture is suspected. The proper course of action is to:

a) Remove the catheter and hold pressure 5-10 minutes, move to another site
b) Remove the catheter and hold pressure 5-10 minutes, continue at same site
c) Remove the catheter and immediately continue at same site
d) Leave the catheter in place and call attending or vascular surgery for backup

CORRECT ANSWER: D

24. During dilation of the tract, the patient becomes unresponsive and hypotensive. All of the following are true except:

a) A code should be called and ACLS protocol followed
b) The line should be quickly placed for access
c) If breath sounds are diminished, a 14FR angiocatheter should be placed in the ipsilateral 2nd intercostal space
d) CXR and ECG should be obtained after airway is secure

CORRECT ANSWER: B

25. During line placement the patient becomes hypoxic. Which of the following is NOT true:

a) The catheter should be immediately removed
b) 100% O2 should be supplied and the patient should be intubated when possible
c) The patient should be moved into a head-down, left-side down (left lateral decubitus, Trendelenberg) position
d) IV fluids and pressors may be necessary

CORRECT ANSWER: A

26. The guidewire has been advanced but seems to catch on the needle or catheter when withdrawn. Which of the following is correct?

a) The needle or catheter should be removed first, then the guidewire
b) The guidewire may be used again on the next attempt, as long as there are no signs of wire fracture
c) The guidewire should be advanced slightly to free the obstruction, then removed
d) Rotate the wire 180°, then attempt removal again

CORRECT ANSWER: A