

CVAD Care & Maintenance Survey

Please fill in:

Department

Date

Have you taken this survey before? A. Yes B. No

1. Which of the following is considered a central venous access device (CVAD)?^{1,2}
(Circle all that apply)
 - A. Non-tunneled catheter (subclavian, percutaneous, short-term)
 - B. PICC
 - C. Midline catheter
 - D. Tunneled catheter
 - E. Implanted port

2. The tip of a CVAD catheter is generally placed in the lower third of the superior vena cava (SVC) near its junction with the right atrium. How much blood flows through this area every minute?^{1,3,4}
 - A. 50 milliliters
 - B. 500 milliliters
 - C. 2 liters
 - D. 3 liters

3. Assessing for patency is a standard of care as defined in the 2016 Infusion Nurses Society (INS) Standards "Infusion Therapy Standard of Practice." How do you define catheter patency?^{1,5}
 - A. Ability to withdraw blood and infuse without resistance in all lumens
 - B. Ability to infuse without resistance in all lumens
 - C. Ability to withdraw blood without resistance in all lumens
 - D. None of the above

4. According to the 2016 INS "Infusion Therapy Standards of Practice,"* when should a CVAD be assessed for patency?¹
 - A. At least once at the beginning or end of each shift
 - B. At least once daily
 - C. Prior to each infusion to help prevent complications
 - D. At dressing change

5. If you have a patient who is on a continuous infusion, when do you assess for patency?^{1,2}
 - A. Periodically
 - B. At each bag change, since this is considered a new infusion of a medication or solution
 - C. There is no need for assessment

*2016 *Infusion Therapy Standards of Practice*, page S77, standard 40.1.

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6. You can't withdraw blood from 1 lumen of a triple-lumen CVAD, although you can infuse through it. The other 2 lumens are fully functional. What do the Association for Vascular Access (AVA) and the Infusion Nurses Society advise for management of this CVAD?^{1,2}
- A. Take no action, since 2 lumens function without difficulty
 - B. Replace the dysfunctional catheter
 - C. Restore patency to the affected lumen, as it is necessary to have all lumens patent in a multilumen catheter
7. What are the signs of CVAD occlusion?¹
- A. Inability to withdraw blood or sluggish blood return
 - B. Sluggish flow
 - C. Inability to flush or infuse through the CVAD
 - D. Frequent occlusion alarms on electronic infusion device
 - E. Infiltration/extravasation or swelling and leaking at infusion site
 - F. All of the above
8. According to the 2016 INS Standards of Practice documentation of CVAD functionality, assessment should include but is not limited to the following¹:
(Circle all that apply)
- A. Device patency
 - B. Absence of signs and symptoms of complications
 - C. Lack of resistance when flushing
 - D. Presence of a blood return upon aspiration
9. How often do you see a line/lumen passed off as "not working"?
- A. Never
 - B. Daily
 - C. More than twice a week
 - D. Other: _____
10. How comfortable are you with managing a dysfunctional catheter?
(0=Uncomfortable, 5=Very comfortable)
- 0 1 2 3 4 5

References: **1.** Infusion Nurses Society. Infusion therapy standards of practice. *J Infus Nurs.* 2016;39(suppl 1):S1-S159. **2.** Doellman D, Buckner JK, Garrett JH Jr, et al. Best practice guidelines in the care and maintenance of pediatric central venous catheters. Herriman, UT: 2015. <http://www.avainfo.org/website/article.asp?id=283140&navitemid=962&linkid=280826>. Accessed March 11, 2016. **3.** Richardson D. Vascular access nursing: standards of care, and strategies in the prevention of infection: a primer on central venous catheters (part 2 of a 3-part series). *JAVA.* 2007;12(1):19-27. **4.** Mohiaddin RH, Wann SL, Underwood R, Firmin DN, Rees S, Longmore DB. Vena caval flow: assessment with cine MR velocity mapping. *Radiology.* 1990;177(2):537-541. **5.** Camp-Sorrell D, ed. *Access Device Standards of Practice for Oncology Nursing.* 4th ed. Pittsburgh, PA: Oncology Nursing Society; 2017:1-85.

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1. A. Non-tunneled; B. PICC; D. Tunneled; E. Implanted port¹
2. C. 2 Liters^{1,3,4}
3. A. Ability to withdraw blood and infuse without resistance in all lumens^{1,5}
4. C. Prior to each infusion to help prevent complications¹
5. B. At each bag change, since this is considered a new infusion of a medication or solution^{1,2}
6. C. Restore patency to the affected lumen, as it is necessary to have all lumens patent in a multilumen catheter^{1,2}
7. F. All of the above¹
8. A. Device patency; B. Absence of signs and symptoms of complications;
C. Lack of resistance when flushing; D. Presence of a blood return upon aspiration¹

References: **1.** Infusion Nurses Society. Infusion therapy standards of practice. *J Infus Nurs.* 2016;39(suppl 1):S1-S159. **2.** Doellman D, Buckner JK, Garrett JH Jr, et al. Best practice guidelines in the care and maintenance of pediatric central venous catheters. Herriman, UT: 2015. <http://www.avainfo.org/website/article.asp?id=283140&navitemid=962&linkid=280826>. Accessed March 11, 2016. **3.** Richardson D. Vascular access nursing: standards of care, and strategies in the prevention of infection: a primer on central venous catheters (part 2 of a 3-part series). *JAVA.* 2007;12(1):19-27. **4.** Mohiaddin RH, Wann SL, Underwood R, Firmin DN, Rees S, Longmore DB. Vena caval flow: assessment with cine MR velocity mapping. *Radiology.* 1990;177(2):537-541. **5.** Camp-Sorrell D, ed. *Access Device Standards of Practice for Oncology Nursing.* 4th ed. Pittsburgh, PA: Oncology Nursing Society; 2017:1-85.