Assessment of: ___IJ ___SC ___Femoral

Central Venous Access Procedural Checklist

6-24-2014

Adapted from Barsuk et al: use of Simulation-Based Mastery Learning to Improve the Quality of CVC Placement in a Medical ICU. J Hosp Med 2009; 4:397-402

*Items marked **: Correct errors but no need to retest. Any other item missed requires full retest.*

1. Today's date	_____/_____/_____
2. PGY Level	__1 __2 __3 __4 ___5+
Your senior or chief resident has told you that this patient needs a Central Line inserted. What do you do next? 3. Verbalize need to confirm indication, review labs, verify insertion site (DVTs, skin infections, best site-femoral site is least preferred)	__ Done Correctly __ Done Incorrectly __ Not Done
4. Informed consent obtained: must do all (benefits, risks, consent given)	__ Done Correctly __ Done Incorrectly __ Not Done
5. Patient or family is educated on prevention of central-line associated bloodstream infections: Keep the insertion site covered and dry, wash hands before any manipulation of the line, disinfect catheter hubs and injection ports before prior to access, observe for signs of redness, warmth or tenderness.	__ Done Correctly __ Done Incorrectly __ Not Done
6. Perform time-out pre-briefing	__ Done __ Not Done
Prepare Kit:	
7. If ultrasound is used, the ultrasound (US) probe is properly set up with sterile sheath and sonographic gel *Maintains sterile field*	__ Done Correctly __ Done Incorrectly __ Not Done __ N/A
8. Open external wrap of kit. Learner puts hat and mask with eye shield on, and area is cleaned with chlorhexadine and allowed to dry.	__ Done Correctly __ Done Incorrectly __ Not Done
9. Open external tray. Learner washes hands or uses hand sanitizer and then gets in sterile gown and gloves. *Reduces transmission of microorganisms and body secretions; standard precautions*	__ Done Correctly __ Done Incorrectly __ Not Done

10. Open internal tray, set full body drape in a sterile technique aside and **prepare kit**	__ Done Correctly __ Done Incorrectly __ Not Done
11. Take caps off and place lurelock injection caps on every port except the one the wire will be placed through and Flush the ports with sterile saline. No recapping. Clamp all flushed ports	__ Done Correctly __ Done Incorrectly __ Not Done
12. Get wire ready and draw up lidocaine for local anesthesia	__ Done Correctly __ Done Incorrectly __ Not Done
13. Drape area in sterile fashion *(must be full body drape)*	__ Done Correctly __ Done Incorrectly __ Not Done
14. Place the patient in slight trendelenberg if not contraindicated (IJ, Subclavian)**	__ Done Correctly __ Done Incorrectly __ Not Done
15. The vein is localized using anatomical landmarks and/or the US machine (depending on insertion site and technique)	__ Done Correctly __ Done Incorrectly __ Not Done
16. The skin and deep structures are anesthetized with lidocaine in a small wheal.*Provides patient comfort and aids in insertion. Mandatory if patient is not under anesthesia.*	__ Done Correctly __ Done Incorrectly __ Not Done
17. If landmarks are used (in IJ or femoral position) - Localize the vein with the finder needle *(optional)*	__ Done Correctly __ Done Incorrectly __ N/A
18. Using the large needle (in subclavian position) or catheter-syringe complex (angiocath), cannulate the vein while aspirating or under visualization of the needle within the lumen of vein if using ultrasound guidance	__ Done Correctly __ Done Incorrectly __ Not Done
19. Verify venous placement with manometry (optional when ultrasound used – **mandatory**when landmarks used and for anesthesia residents in general)	__ Done Correctly __ Done Incorrectly __ N/A
20. ** Remove the syringe from the needle/angiocath and advance the guidewire through the needle into the vein no more than approximately 15-20 cm. *Prevents accidental withdrawal or intravascular insertion of guidewire. Pressure prevents hematoma at site of puncture.* **** If guidewire inserted incorrect distance, correct but do not retest.**	__ Done Correctly __ Done Incorrectly __ Not Done

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21. Remove the needle/angiocath. Confirm guide wire placement in vein via ultrasound if ultrasound used	__ Done Correctly __ Done Incorrectly __ Not Done
22. Knick the skin at the venipuncture site with the scalpel	__ Done Correctly __ Done Incorrectly __ Not Done
23. Advance the dilator over the guidewire while holding the guidewire and dilate the vein, remove dilator	__ Done Correctly __ Done Incorrectly __ Not Done
24. Advance the catheter over the guidewire while holding the guidewire	__ Done Correctly __ Done Incorrectly __ Not Done
25. ** Advance the catheter approximately to 14-16 cm on the right side, 16-20 cm on the left side, usually cordices and dialysis catheters are inserted to hub** **If catheter inserted incorrect distance, correct but do not retest. If inserted to hub and secured in place, retest.**	__ Done Correctly __ Done Incorrectly __ Not Done
26. Never let go of the guidewire while manipulating the catheter	__ Done __ Not Done
27. Once the catheter is inserted remove the guidewire in its entirety and cap the port	__ Done Correctly __ Done Incorrectly __ Not Done
28. Ensure there is blood flow from each port and flush each port *Prevents clotting of line*	__ Done Correctly __ Done Incorrectly __ Not Done
29. Ensure all ports are capped (especially the one the wire was placed through)	__ Done __ Not Done
30. Secure the catheter in place *(suture or staple)*	__ Done __ Not Done
31. Maintained sterile technique throughout procedure	__ Done __ Not Done
32. Place biopatch and sterile dressing over catheter. *Decreases risk of infection* Date and time and initials marked on dressing.Document the type of dressing. *Tegaderm dressing can be changed weekly, but gauze needs to be changed every 48 hours.*	__ Done __ Not Done
33. Dispose of sharps appropriately	__ Done __ Not Done
34. Get a chest x-ray (for IJ, subclavian) If the line placement was confirmed with fluoroscopy, transesophageal	__ Done __ Not Done

echocardiography or continuous electrocardiography a CXR is not mandatory *Determine location of tip of catheter (ideally within SVC at the cava-atrial junction), evaluate for pneumothorax, hemothorax, other complications.*	
35. Ask learner: what will you do next? *Correct answer: Notify staff that the catheter is ok to use; Document the procedure via Central line insertion procedure power note.*	__ Correct Response __ Incorrect Response
36. Ask learner: Show how you would manipulate the tip to correct the position if the CXR shows the tip is too high in the SVC.	__ Correct Response __ Incorrect Response
37. Ask learner: what needs to be done daily to maintain the line? *Correct answer: assess daily for intact dressing, redness, tenderness, drainage and document in daily progress note.*	__ Correct Response __ Incorrect Response

Comments: