

Sterile Technique Return Demonstration

Sterile Technique Description:

This is a return demonstration checklist that is used to evaluate participants in the simulated hands-on skills portion for certification in central line placement.

Sterile Technique Objective:

Demonstrate proper patient preparation pre-central line insertion using sterile technique with maximal barrier precautions and proper patient positioning.

Critical actions are highlighted in yellow.		
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The operator must pass all actions in order to pass this checklist.

Did the operator complete the following:	Passed	Needs Remediation
1. Don cap, mask and eyewear.		
2. Wash hands with CHG soap or CHG alcohol scrub.		
3. Open kit aseptically.		
4. Open sterile supplies aseptically.		
5. While wearing hat, mask, and gloves, cleanse procedure site with disinfectant (IJ/SC for 30 seconds). Should state 2 minutes for femoral. [PROMPT: How long is the scrub time for IJ, femoral, subclavian insertion?]		
6. Verbalizes appropriate drying time of chlorhexidine. [PROMPT: Do you need to wait for the chlorhexidine to dry before beginning your procedure? Answer: Yes].		
7. Don sterile gown and gloves.		
8. Drape the patient in sterile fashion.		
9. Reprep the insertion site with chlorhexidine.		

IJ/Femoral Return Demonstration

IJ/Femoral Description:

This is a return demonstration checklist that is used to evaluate participants in the simulated hands-on skills portion for certification in central line placement.

IJ/Femoral Objectives:

1. Identify complications that can occur from the placement of a central line during and after placement.
2. Identify major anatomical structures, guide needle insertion, and confirm device placement with ultrasound.
3. Demonstrate successful placement and removal of a central line (IJ and Femoral) using sterile technique with maximal barrier precautions and proper patient positioning.
4. Verbalize appropriate post-procedure care and documentation.
5. Demonstrate the five components of the central line bundle through the utilization a central line safety checklist.

Critical actions are highlighted in yellow.		
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The operator must pass all critical actions and 85% of the non-critical actions in order to pass this checklist.

Catheter Insertion Did the operator complete the following:	Passed	Needs Remediation
1. Obtain or confirm documentation of consent.		
2. Use institution specific checklist/algorithm recommending standardized protocol for CVL insertion.		
3. Verbalizes that patient history was checked for coagulopathy and anti-coagulation.		
4. "Pause for the cause" (includes verification of patient/procedure and completion of Procedure Verification Form).		
5. Assures proper position of bed and patient (if gowned and gloved directs assistant to perform.) [PROMPT: How do you position the patient for IJ and femoral insertion?]		
6. Power-on the US machine (if gowned and gloved directs assistant to perform).		

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7. Selects correct probe - linear probe (if gowned and gloved directs assistant to perform).		
8. Select appropriate preset - vascular (if gowned and gloved directs assistant to perform).		
9. Open probe cover package aseptically (if gowned and gloved directs assistant to perform).		
10. Apply gel and insert probe into sterile probe cover aseptically.		
11. Orient probe.		
12. Place probe on patient in correct alignment.		
13. Assures appropriate depth setting (if gowned and gloved directs assistant to perform).		
14. Describes key anatomical landmarks in transverse and longitudinal view. [PROMPT: Please describe key anatomical landmarks for IJ and femoral insertion.] (IJ: head rotated contralaterally, between two heads of sternocleidomastoid muscle [SCM] or edge of posterior belly SCM, patient placed in Trendelenburg; Femoral - below inguinal ligament, vein, artery.		
15. Correctly identify artery and vein on ultrasound and confirm ability to compress vessel and assess patency.		
16. Aspirate the lidocaine numbing agent aseptically.		
17. Load guide wire into catheter guide aseptically.		
18. Clamp ports or close them with claves while leaving distal port open.		
19. Pantomimes or verbalizes injecting skin with lidocaine (do not perform on mannequin).		
20. Place probe on skin without losing alignment.		
21. Use dominant hand for needle and non-dominant hand for the US probe.		
22. Puncture the skin at 30-45 degree angle with the needle.		
23. Advance needle in proper trajectory (IJ - toward ipsilateral nipple; Femoral - needle perpendicular to probe).		
24. Utilizing ultrasound, demonstrates ability to identify tip of needle in vessel. [PROMPT: Please show me the tip of the needle in the vessel.]		
25. Obtain blood flash, using non-dominant hand to stabilize the needle hub.		

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26. Unscrew syringe and note color of blood and lack of pulse. Keep needle hub opening sealed until inserting guidewire.		
27. Verbalizes passing of guide wire to no further than 24 cm mark at skin (do not perform on mannequin). [PROMPT: How far should you advance the guidewire?]		
28. Verbalizes options for verification of IV placement. [PROMPT: What are the options for verification of venous placement of the catheter?] (a) Angiocath placement over guide wire and tube manometry; b) CVP transduction; c) verify guide wire position using ultrasound in long axis view [Verbalize: must see guidewire on US]).		
29. Pantomimes or verbalizes to nick skin with scalpel edge positioned away from the guide wire (do not perform on mannequin). [PROMPT: Please show me how to position the scalpel.]		
30. Pantomimes or verbalizes passing the dilator over the guide wire and insertion with circular or oscillating motions to allow adequate dilation of skin and muscle (do not perform on mannequin). Pantomimes or verbalizes demonstration of wire mobility during advancement.		
31. Control bleeding at insertion site during dilator removal.		
32. Feed catheter over the guide wire until end of the wire emerges from the distal port.		
33. Use non-dominant hand to control the end of the guide wire.		
34. Advance the catheter into the vessel leaving 1.5 cm free between skin and the hub for placement of Biopatch. (if unable to pass catheter [PROMPT: How far would you advance the catheter?])		
35. Remove the guide wire and clamp distal port or close with a cap.		
36. Aspirate and flush all catheter ports with saline, holding flushes upright to avoid infusing air.		
37. Place Biopatch.		
38. <u>If only testing for IJ/FEM</u> , secures catheter with 2 sutures or STATLOCK to suture pad [Proctor: slide suture pad under drape]. Verbalizes if testing for subclavian.		
39. Pantomimes or verbalizes to apply sterile dressing (do not perform on mannequin).		
40. Hand-off guide wire for confirmation of removal.		
41. Appropriately dispose of sharps.		
42. Order X-ray for confirmation of proper placement of IJ, and if placing a femoral line, verbalized x-ray confirmation for IJ placement.		

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43. Verbalize documentation of the line insertion.		
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Sterile Field Did the operator complete the following:	Passed	Needs Remediation
44. Throughout the procedure, did the operator maintain asepsis at all times?		

Catheter Removal Did the operator complete the following:	Passed	Needs Remediation
45. Verbalize that central line removal is a two-licensed persons' procedure (MD, PA, RN, NP) -- No students.		
46. Verbalize that patient history was checked for coagulopathy, anti-coagulation, dehydration and hypovolemia markers within past 24 hours.		
47. "Pause for the cause" (includes verification of patient/procedure) is initiated.		
48. Verbalize that the patient is laid flat for femoral removal or placed in a slight Trendelenburg position and instructed to Valsalva during IJ or Subclavian removal. Verbalizes cutting sutures before removal.		
49. Compress the insertion site with a digit until the bleeding stops.		
50. Verbalize dressing site with an occlusive dressing (ointment, petroleum gauze, or sealed Tegaderm).		
51. Instruct the patient to remain flat for 30 minutes.		
52. Verbalize documentation of the line removal.		

Subclavian Return Demonstration

Subclavian Description:

This is a return demonstration checklist that is used to evaluate participants in the simulated hands-on skills portion for certification in central line placement.

Subclavian Objectives:

1. Identify complications that can occur from the placement of a central line during and after placement.
2. Identify major anatomical structures, guide needle insertion, and confirm device placement with ultrasound.
3. Demonstrate successful placement and removal of a central line (Subclavian) using sterile technique with maximal barrier precautions and proper patient positioning.
4. Verbalize appropriate post-procedure care and documentation.
5. Demonstrate the five components of the central line bundle through the utilization of a central line safety checklist.

Critical actions are highlighted in yellow.		
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The operator must pass all critical actions and 85% of the non-critical actions in order to pass this checklist.

Catheter Insertion Did the operator complete the following:	Passed	Needs Remediation
1. Obtain or confirm documentation of consent.		
2. Use institution specific checklist/algorithm recommending standardized protocol for CVL insertion.		
3. "Pause for the cause" (includes verification of patient/procedure and completion of Procedure Verification Form).		
4. Verbalizes that patient history was checked for coagulopathy and anti-coagulation.		
5. Assure proper position of bed and patient (if gowned and gloved directs assistant to perform). [Prompt: What is the proper positioning of the bed and patient?]		
6. Aspirate the lidocaine numbing agent aseptically.		
7. Load guide wire into catheter guide aseptically.		

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8. Clamp ports or close them with claves while leaving distal port open.		
9. Pantomimes or verbalizes injecting skin with lidocaine (do not perform on mannequin).		
10. Describes key anatomical landmarks. [PROMPT: Please describe the key anatomical landmarks of subclavian insertion.] (Midpoint of clavicle, or juncture of middle and lateral thirds of the clavicle).		
11. Places patient in Trendelenburg position. [PROMPT: How do you position the patient for subclavian insertion?]		
12. Puncture skin 2 cm below the clavicle with needle almost parallel to the skin and advance until the tip of the needle touches the clavicle.		
13. Use a non-dominant finger or thumb to press the tip of the needle underneath the clavicle.		
14. Once underneath, direct the tip of the needle toward the sterno-clavicular joint and advance.		
15. Obtain blood flash, using non-dominant hand to stabilize the needle hub.		
16. Unscrew syringe and note color of blood and lack of pulse.		
17. Verbalizes passing of guide wire to no further than 24 cm mark at skin. [PROMPT: How far should you advance the guidewire?]		
18. Verbalizes options for verification of IV placement. [PROMPT: What are the options for verification of venous placement of the catheter?] (a) Angiocath placement over guide wire and tube manometry; b] CVP transduction.		
19. Pantomimes or verbalizes to nick skin with scalpel edge positioned away from the guide wire (do not perform on mannequin). [PROMPT: Please show me how to position the scalpel.]		
20. Pantomimes or verbalizes passing the dilator over the guide wire and insertion with circular or oscillating motions to allow adequate dilation of skin and muscle (do not perform on mannequin). Pantomimes or verbalizes demonstration of wire mobility during advancement.		
21. Control bleeding at insertion site during dilator removal.		
22. Feed catheter over the guide wire until end of the wire emerges from the distal port.		

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23. Use non-dominant hand to control the end of the guide wire.		
24. Advance the catheter into the vessel leaving 1.5 cm free between skin and the hub for placement of Biopatch (verbalizes if unable to pass catheter).		
25. Remove the guide wire and clamp distal port or close with a cap.		
26. Aspirate and flush all catheter ports with saline, holding flushes upright to avoid infusing air.		
27. Place Biopatch.		
28. Secures catheter with 2 sutures or STATLOCK to suture pad [Proctor: slide suture pad under drape].		
29. Pantomimes or verbalizes to apply sterile dressing (do not perform on mannequin).		
30. Hand-off guide wire for confirmation of removal.		
31. Appropriately dispose of sharps.		
32. Order X-ray for confirmation of proper placement.		
33. Verbalize documentation of the line insertion.		

Sterile Field Did the operator complete the following:	Passed	Needs Remediation
34. Throughout the procedure, did the operator maintain asepsis at all times?		