

Buttonhole Cannulation Skills Checklist



Employee Name/Title: _____ Date: _____

Unit Name: _____

Evaluator's Name: _____

Rating Definitions:

Expert: Teaches others; **Independent:** Performs without coaching or supervision; **Novice:** Performs with coaching (Action Plan required); **Not Met:** Currently unable to perform even with coaching (Action Plan required)

Criteria/Performance Indicator	Expert	Independent	Novice	Not Met
Establishing a Buttonhole Site with Sharp Needles				
<p>1. Verbalizes / Demonstrates assessment of the native AV fistula:</p> <ul style="list-style-type: none"> a. Looks: Compares access limb to contralateral limb for differences – swelling, redness, drainage, and signs of infection b. Listens: Checks for patency, and signs of stenosis c. Feels: Determines direction of blood flow, diameter of fistula, aneurysm formation, curves, flat spots, depth of access, signs of stenosis d. Verbalizes that if patient will be dialyzing more than 3x a week, it is suggested that a second set of buttonholes be created at the same time as the original, and use should be alternated to prevent closure of the blood vessel wall 				
<p>2. Exhibits proper selection criteria for buttonhole sites:</p> <ul style="list-style-type: none"> a. Identifies a segment of straight fistula at least the length of the needles being used (i.e., 1-inch, 5/8-inch) b. Verbalizes avoiding flat spots c. Identifies only full-thickness AVF wall – NO aneurysm or pseudoaneurysm sites d. Verbalizes that sites should be at least 1.5 inches apart to reduce recirculation e. Selects sites with low arterial and venous pressures, and high blood flow rates, based on previous cannulations f. If the patient is to self-cannulate, the sites are in a position and an angle that is easy for the patient to access 				

Criteria/Performance Indicator	Expert	Independent	Novice	Not Met
Establishing a Buttonhole Site with Sharp Needles (cont.)				
<p>3. Verbalizes / Demonstrates technique for removal of scabs over cannulation sites per facility protocol.</p> <ul style="list-style-type: none"> a. If using a 2-step cleaning protocol: Verbalizes cleaning sites with facility's antimicrobial agent, following the manufacturer's recommendations, prior to scab removal, and using aseptic technique. b. Moistens scabs before removal c. Avoids trauma to exit site d. Removes scabs completely 				
<p>4. Demonstrates skin preparation for cannulation per facility protocol.</p> <ul style="list-style-type: none"> a. Demonstrates aseptic technique when preparing sites b. Allows appropriate contact time per manufacturer's recommendation c. Does not blot or wipe off excess solution 				
<p>5. Demonstrates proper use of a tourniquet for cannulation of fistula and verbalizes the importance of tourniquet use with EVERY cannulation.</p> <ul style="list-style-type: none"> a. Placed in axilla area just tight enough to engorge vessel b. Verbalizes rationale: Stabilizes vessels, aides in visualization, better feel, and consistency in tunnel / flap alignment for proper entry into AVF c. Allows accurate assessment for depth of access to determine the correct angle of insertion 				
<p>5. After entering the skin at the proper angle of insertion, demonstrates lowering the angle of insertion after entering blood vessel and seeing a flashback in the needle tubing, and advancement of the needle into the center of the blood vessel.</p>				
<p>6. Demonstrates proper technique to secure fistula needles in place per facility protocol.</p>				
<p>7. Verbalizes that same person should perform the cannulations while the track is being established (i.e., using sharp needles).</p>				
<p>8. Verbalizes timeline criteria to establish buttonhole.</p> <ul style="list-style-type: none"> a. Exit site well-healed b. Decreased resistance down the tunnel and through the blood vessel flap 				
<p>8. Documents cannulation results in the patient's dialysis treatment record, including comments regarding patient responses, any leakage, difficulties, and positive /negative observations.</p>				

Criteria/Performance Indicator	Expert	Independent	Novice	Not Met
Cannulating a Buttonhole with Blunt Needles				
1. Verbalizes / Demonstrates assessment of the native AVF. <ul style="list-style-type: none"> a. Looks: Compares access limb to contralateral limb for differences – swelling, redness, drainage, and signs of infection b. Listens: Checks for patency, and signs of stenosis c. Feels: Determines direction of blood flow, diameter of fistula, aneurysm formation, curves, flat spots, depth of access, signs of stenosis d. Assesses buttonhole exit sites for scabs, redness, drainage, or signs of infection 				
2. Verbalizes / Demonstrates technique for removal of scabs over cannulation sites per facility protocol. <ul style="list-style-type: none"> a. If using a 2-step cleaning protocol: Verbalizes cleaning sites with facility's antimicrobial agent, following the manufacturer's recommendations, prior to scab removal, and using aseptic technique. b. Moistens scabs before removal c. Avoids trauma to exit site d. Removes scabs completely 				
3. Demonstrates skin preparation for cannulation per facility protocol. <ul style="list-style-type: none"> a. Demonstrates aseptic technique when preparing sites b. Allows appropriate contact time per manufacturer's recommendation c. Does not blot or wipe off excess solution 				
4. Demonstrates proper use of a tourniquet for cannulation of fistula and verbalizes the importance of tourniquet use with EVERY cannulation. <ul style="list-style-type: none"> a. Placed in axilla area just tight enough to engorge vessel b. Verbalizes rationale: Stabilizes vessels, aides in visualization, better feel, and consistency in tunnel / flap alignment for proper entry into AVF c. Allows accurate assessment for depth of access to determine the correct angle of insertion 				
9. Demonstrates proper technique to secure fistula needles in place per facility protocol.				
10. Documents cannulation results in the patient's dialysis treatment record, including comments regarding patient responses, any leakage, difficulties, and positive /negative observations.				

Evaluator's Comments/Action Plan:

Evaluator's signature: _____ Date: _____



This educational item was produced through the AV Fistula First Breakthrough Initiative Coalition, sponsored by the Centers for Medicare and Medicaid Services (CMS), Department of Health and Human Services (DHHS). The content of this publication does not necessarily reflect the views or policies of the DHHS, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government. The author(s) assume full responsibility for the accuracy and completeness of the ideas presented, and welcome any comments and experiences with this product.