



Kidney Solutions Arteriovenous Cannulation in Haemodialysis Assessment Form

Employee Name: _____

Assessor Name: _____

Date of Assessment: _____

This form is designed to assess the competency of Registered Nurses (RNs) and Enrolled Endorsed Nurses (EENs) in performing arteriovenous (AVF/AVG) cannulation for hemodialysis, as per Kidney Solutions (KS) policy HHD03-03-30.

Instructions: Observe the RN/EEN performing the procedure and mark “Satisfactory” or “Needs Improvement” for each step. Provide comments for any “Needs Improvement” ratings.

Section A: Pre-Cannulation Assessment and Preparation

Step	Criteria	Satisfactory	Needs Improvement	Comments / Observations
1	Confirms patient identification (<i>name, DOB, medical record number</i>)			
2	Checks patient's allergy status, especially to latex or chlorhexidine.			
3	Ensures informed consent has been provided by patient or authorised representative.			
4	Assesses patient's AVF/AVG for signs of infection (<i>redness, inflammation, swelling, discharge, warmth</i>).			
5	Assesses for presence of aneurysms or pseudoaneurysms.			
6	Assesses maturation of the fistula.			

7	Determines blood flow direction by referring to patient's operation notes or diagram.			
8	Assesses flow characteristics (<i>thrill vs. pulse</i>) by palpating arterial, mid, and venous sections.			
9	Auscultates for bruit along the vein or graft, noting changes in pitch and amplitude.			
10	Determines cannulation pattern (<i>rotation of sites, presence of buttonholes</i>).			
11	Reports any abnormal assessment findings (<i>e.g., decreased bruit or thrill, signs of infection</i>) to KS Clinical Service Director.			
12	Gathers all necessary equipment: <ul style="list-style-type: none"> ○ dressing pack, syringes (3ml, 10ml x2) ○ drawing-up needle ○ injection needles (19-gauge, 25-gauge) ○ fistula needles (<i>patient-specific size</i>) ○ 1% Lignocaine ampoule ○ sterile Normal Saline ampoules x2 ○ Heparin 5,000 units/5ml ○ Micropore tape ○ tourniquet (<i>for native AVF only</i>) ○ sterile gloves ○ environmental alcohol wipes ○ skin cleansing solution (<i>Chlorhexidine 0.5% with alcohol 70% or alternative</i>). 			
13	Performs routine hand-wash.			
14	Cleans surface area with environmental alcohol wipes.			
15	Instructs ambulant patient with upper limb access to wash arm with 2% Chlorhexidine hand-wash, rinse, and dry thoroughly.			
16	Applies tourniquet loosely above the fistula for native AVF only.			
17	Performs procedure hand-wash.			
18	Dons sterile gloves.			
19	Applies antiseptic solution (<i>chlorhexidine 0.5% with alcohol 70%</i>) to cannulation areas using back and forth friction scrub for 30 seconds.			
20	Allows antiseptic solution to dry completely; does not blot dry.			
21	Avoids touching insertion sites after preparation.			
22	Draws up 1.5ml 1% Lignocaine with a 3ml syringe and drawing-up needle.			
23	Changes needle to a 25-gauge injection needle for Lignocaine.			

24	Draws up required heparin loading dose with a 10ml syringe and drawing-up needle, then fills with Normal Saline to 10ml mixture.			
25	Prepares a second 10ml syringe with Normal Saline only.			
26	Injects 0.1-0.3ml 1% Lignocaine intradermally over intended arterial and venous sites with bevel facing up.			
27	Waits approximately 30 seconds after injecting local anesthetic before inserting fistula needle.			
28	Confirms that a new native AVF is not cannulated earlier than 6-8 weeks unless specified by consultant.			
29	Confirms that a new AVG is not cannulated earlier than 2 weeks unless specified by consultant.			
30	Uses a smaller gauge needle (<i>16 or 17 gauge</i>) for new fistulas.			
31	Ensures initial cannulation of a new AVF involves a qualified clinician with KS Clinical Service Director approval.			

Section B: Cannulation Procedure

Step	Criteria	Satisfactory	Needs Improvement	Comments / Observations
Arterial Site Cannulation				
1	For native AVF, asks patient to tighten tourniquet to impede (<i>not occlude</i>) venous outflow.			
2	Pulls skin taut in opposite direction of needle insertion with non-dominant thumb below site.			
3	Inserts fistula needle with bevel facing up.			
4	Levels fistula needle along the fistula once blood backflow is achieved.			
5	Pulls back and re-aligns if resistance is felt.			
6	Secures with 'Micropore' tape as per policy diagram/statement.			
7	Primes fistula needle tubing with blood by opening and releasing clamp and cap.			
8	Removes cap and flushes fistula needle tubing with prepared 10ml Normal Saline syringe, leaving syringe attached.			
Venous Site Cannulation				
9	Repeats steps for arterial site cannulation (1-5).			
10	Removes cap and flushes fistula needle tubing with prepared 10ml heparin/Normal Saline mixture.			

11	Leaves syringe attached to tubing until patient is ready to connect to hemodialysis machine.			
12	Uses rope-ladder technique for cannulation, rotating puncture sites.			
13	Disposes of all equipment appropriately.			
14	Documents procedure on the patient's KS HHD Flowchart App.			

Section C: Securing Fistula Needles

Step	Criteria	Satisfactory	Needs Improvement	Comments / Observations
1	Secures fistula needle with one piece of adhesive tape over the wings of the butterfly.			
2	Applies a second piece of adhesive tape from underneath the cannula, overlapping across the top of the wings.			
3	Places a third piece of adhesive tape over and across the overlapping tape (<i>immediately below the wing, on the tubing itself</i>).			
4	Forms fistula needle tubing into a 'U' shape and secures with another piece of adhesive tape to prevent accidental pulling.			
5	Ensures all adhesive tape strips fully wrap around the cannula tubing, not just laying on top.			
6	Gently pinches the tape around the tubing for optimal adhesion.			

Section D: Ultrasound Device Utilisation (if applicable)

Step	Criteria	Satisfactory	Needs Improvement	Comments / Observations
1	Utilises ultrasound device for cannulation of difficult fistulas.			
2	Effectively visualises blood vessel characteristics (<i>depth, pattern</i>) using ultrasound.			
3	Uses ultrasound to guide optimal needle placement.			

Section E: Post-Cannulation and Ongoing Care

Step	Criteria	Satisfactory	Needs Improvement	Comments / Observations
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1	Articulates the importance of documenting PIVC insertion, including site, catheter size, and any complications.			
2	Explains the need for regular inspection of the PIVC site for complications or infection.			
3	Describes the maintenance of the PIVC dressing and securement devices.			
4	Emphasises continuous monitoring for complications or infection.			
5	Explains how to educate patient and/or caregiver on PIVC care and maintenance, including infection prevention and troubleshooting.			

Overall Assessment: **COMPETENT** / **NOT COMPETENT** (Please circle)

Assessor's Signature: _____

Date: _____

Employee's Signature: _____

Date: _____

Feedback/Recommendations:
