

## Example

## Self-Cannulation of Fistulas Patients Policy and Procedure

### Self-Cannulation of Fistulas Policy and Procedure

ESRD Network #15  
Date: 04/04

#### Purpose:

To promote self-care for those patients who have mature fistulas; to reduce patient anxiety regarding infiltrates (needle not placed in vein), infections, and missed "sticks" associated with a fistula.

#### Policy:

Patients who have been on dialysis for approximately six months to one year and have developed fistulas are able to practice self-cannulation at their request. Patients must have the dexterity and visual capacity to perform this procedure. Patients will receive appropriate training from staff prior to approval for self-cannulation.

#### Procedure: see attached training checklist.

1. Check fistula for any signs of infection: redness, swelling, tenderness, or abnormal drainage. Note any bruising and locate last puncture sites. Feel fistula for a pulse (*thrill*) and listen for a buzzing sound (*bruit*).
2. Prepare fistula for needle stick:
  - Wash hands and fistula arm, above and below fistula area, with anti-bacterial soap and warm water.
  - Select sites for needle sticks. **DO NOT** stick needle into a bruised/tender area or areas that look opaque/bumpy (aneurysms). **DO NOT** stick needle into a curved area of the vein (fistula). Choose the middle section of the vein (fistula) for sticking.
  - Ready items for needle stick: cleansing solution, tourniquet, needles, clamp, and tape to secure needles in place. (Please use unit policy for taping procedure.)
  - Apply Betadine in a circular motion (inside to out). Allow Betadine to dry. OR, if there is an allergy to Betadine, use 2% chlorhexidine in a circular motion.
3. Apply tourniquet. (Always use a tourniquet for matured fistulas. Using a tourniquet will hold vein in place. This will make sticking the needle easier.)
  - Use a tourniquet with Velcro edges: Wrap tourniquet above and around fistula arm. Pull tight, secure with Velcro.
  - Use a tourniquet with no Velcro: Wrap tourniquet above and around fistula arm, pull both ends straight up with non-fistula hand. This action will create tension under the fistula arm. Twist tourniquet ends twice (close to skin) and clamp tourniquet ends close to skin with a clamp.

OR

  - Staff can apply tourniquet.
4. Open correct needles (15g for mature fistulas) and grasp needle wings to remove protective cover from tip. **DO NOT** touch needle tip after removing protective cover. If needle accidentally touched, throw needle away in *Sharps container* (a red bin for items that have a sharp edge...broken glass or used needles) and get a new needle.

*The arterial needle should be done first. This will allow room to re-stick, if there is a problem or a missed stick.*

-Using the hand that is holding the needle by the wings, pull down on the skin below chosen puncture site using "pinkie" and side of hand (*traction* or pulling down on the skin will straighten the vein and keep it from rolling). With the needle pointed down, bevel up (see Figure 1), hold the needle at a 25-degree angle (see Figure 1). Puncture skin and move needle forward.

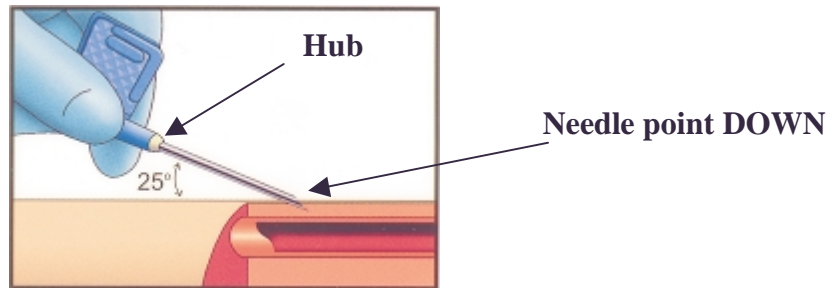


Figure 1\*\*

-Look for movement of blood inside the tubing. This means the needle is inside the vein. At this point level out the angle and continue to move needle forward to the hub (see Figure 1). **If, it is hard to move the needle forward or you feel pain, STOP needle movement. Call for help!**

-Secure wings flat with a piece of tape first, then in a *Chevron* (see Figure 2) fashion. Stick second needle using the same method. Remember the needles should be at least two fingers width apart. **RELEASE TOURNIQUET.**

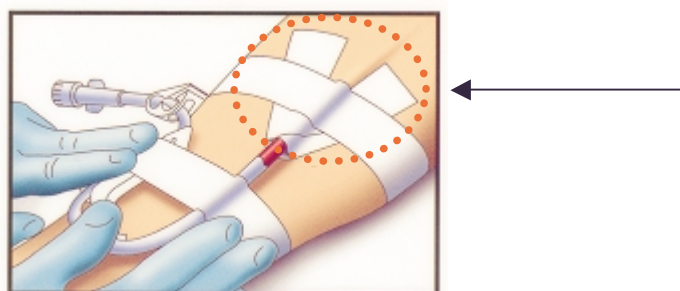


Figure 2\*\*

5. Tape the needles with additional tape to stop movement of needles.
6. At any time during this procedure, please ask the staff for any help you may need while sticking your fistula.

**ALWAYS** tell the nurse if there is an infiltration (swelling around needle or a sudden bump).

**TIPS:**

- ❖ **ALWAYS USE A TOURNIQUET. NO EXCEPTIONS!**
- ❖ **TRACTION** is important; to straighten the vein (fistula) and stop it's rolling.
- ❖ Stick fistulas slowly and watch for blood in tubing. This indicates correct needle placement (blood=vein).
- ❖ If you experience pain and/or a sudden swelling (bump) around the needle, **STOP** and remove needle. Apply pressure to puncture site with 2X2 gauze, until bleeding stops. Approximately 8-10 minutes. Examine fistula to determine the location of new puncture site, if appropriate. Call facility or a staff member if assistance is needed.

