

## Fistula Preservation, Development and Maintenance Policy and Procedure *Example*

**Fistula Preservation Development and Maintenance Policy and Procedure**

*ESRD Network #15  
Date*

**Purpose:** To preserve vessels for future placement of a native AV fistula. To promote the development and maintenance of AV fistula by giving patients strategies to help increase the diameter of the vessel, prevent infection, prevent thrombosis and maintain function.

**Background Information:**

Evidence based NKF-K/DOQI guidelines state that “patients and healthcare professionals should be educated about the need to preserve veins to avoid loss of potential access sites in the arms and to maximize chances for successful AV fistula placement and maturation.”

**Policy:**

Fistula Preservation and development shall be accomplished according to NKF-K/DOQI Guidelines #7-Preservation of Veins for AV Access and Guideline #9-Access Maturation. Preservation of veins and maturation of AV-fistulas shall be a collaborative effort among surgeons, nephrologists and dialysis staff.

### *Preservation of Veins*

**Procedure:**

- Catheterization of the subclavian vein and use of PICC lines shall be avoided for venous access in all patients with kidney failure due to the risk of central and peripheral venous stenosis and thrombosis
- Preservation of arm veins that are suitable for vascular access regardless of arm dominance shall be emphasized.
- Education of patients and staff regarding the need to protect potential access vessels shall include:
  - Prohibiting placement of IV’s or blood draws from the cephalic veins of the non-dominant arm. IV’s should be placed in the dorsum of the hand if at all possible.
  - Encouraging the patient to wear a Medic Alert bracelet prohibiting IV placement in essential veins unless it is an emergency.
  - Posting a sign to remind hospital staff not to draw blood or place IV’s in the potential access arm.

### **Access Maturation**

#### **Procedure:**

- Instruct the patient to begin fistula exercises after the suture line has healed, the stitches have been removed and the nephrologist has given the OK. Patient shall receive a copy of the brochure titled, *"Fistula Exercises- Building Your New vascular Access"*. Upon recommendation by the surgeon these exercises may be started prior to access placement to aid in vein development.
  
- Access maturation will be different for each individual. The following guidance is provided:
  - A primary AVF is mature and suitable for use when the vein's diameter and position is adequate to allow for successful and safe cannulation. This should not be sooner than one month and preferably 3-4 months after construction.
  - The following may enhance the maturation of the native AVF:
    - Hand-arm exercises
    - Selective obliteration of major venous side branches
    - Resting the access after an infiltration
  - Patients with persistent edema two weeks after access placement should receive a venogram or non-contrast study to evaluate for central venous obstruction.

This guideline is supported primarily by opinion-based consensus information.

### **Maintenance**

- Facility will provide guidance to the patient on maintenance of their AVF, consistent with their own policies and procedures, and with the K-DOQI recommended practices.