

# Dialysis

## Vascular Access

### 2. Preservation of central and peripheral veins

#### CARI Guidelines

Cannulation of the cephalic, antecubital fossa and basilic veins of both upper limbs must be avoided. (level C evidence)

Appropriate sites for short term peripheral intravenous cannulation are the dorsum of the hands, dorsum of the feet, and flexor aspects of the wrists and forearms.

Percutaneously inserted cubital forearm lines should be avoided for central venous access.

Consider using the external jugular vein before the internal jugular for central venous access if possible. (level C evidence)

Options for alerting medical staff to avoid forearm cannulation include patient bracelets, stickers on case notes, warning the patient, signs in the ward and at the junior doctors' desk, and informal education of other medical specialists and staff.

Establish a culture of vein preservation within the hospital. (level C evidence)

## What is the evidence?

No studies available on this subject

## What do the other guidelines say?

The CARI guidelines are in agreement with the DOQI, the BRA and the CSN guidelines on this subject.

**DOQI:** Arm veins suitable for placement of vascular access should be preserved, regardless of arm dominance. Arm veins, particularly the cephalic veins of the non-dominant arm, should not be used for venipuncture or intravenous catheters. The dorsum of the hand should be used for intravenous lines in patients with chronic renal failure. When venipuncture of the arm veins is necessary, sites should be rotated.

Instruct hospital staff, patients with developing ESRD (creatinine >3 mg/dL), and all patients with conditions likely to lead to ESRD, to protect the arms from venipuncture and intravenous catheters. A Medic Alert bracelet should be worn to inform hospital staff to avoid IV cannulation of essential veins.

Subclavian vein catheterization should be avoided for temporary access in all patients with chronic renal failure due to the risk of central venous stenosis. (Evidence)

**BRA:** Cephalic veins should be avoided for routine venipuncture in all patients likely to require long term access and blood drawn elsewhere. Above all, the cephalic veins should not be used for intravenous infusions. Catheters should not be inserted into the subclavian veins, the jugular vein being used instead.

**CSN:** Avoid using subclavian vein catheterization for temporary access in all patients with chronic renal failure due to the risk of central venous stenosis (evidence: level III).

## **Implementation and Audit**

Record central line usage in dialysis patients in a retrievable form and audit this information

**OUT OF DATE**