Guidelines for Venous Access in Patients with Chronic Kidney Disease or Renal Insufficiency

• **Identify**- HD patients, present or future
  – CKD stages 3,4 or 5, including stage 5, including current hemodialysis, peritoneal dialysis or transplant patients

• **Plan**- venous access for stages 3-5

• **Choose**-
  – dorsal hand veins for phlebotomy
  – proximal peripheral venous access if necessary
  – internal jugular veins are preferred for central venous access
  – external jugular veins are acceptable alternative

• **Avoid**
  – the subclavian veins

National Kidney Foundation, 2006
Incidence of Thrombosis After Initial Normal Venogram

- Left Arm
- Right Arm
- Total

- Extremities Developing Thrombosis after Initial PICC Placement
- Extremities Developing Thrombosis After One or More PICC’s Were Placed

Allen et al, JIVR, 2000
Thrombosis following PICC placement

Figure 1. A 38-year-old asymptomatic woman 1 day after PICC placement with inadvertent removal. Venography demonstrates non-occlusive thrombus in a brachial vein.

A 9-year-old girl with acute lymphocytic leukemia. Initial left upper extremity venography 1 year ago was normal. Follow-up venography after basilic and cephalic PICC placements demonstrated occlusion of these veins, with occlusion of the central venous system and multiple collaterals. No other form of central venous access had been performed.

Allen et al, JIVR, 2000