

# Dialysis

## Vascular Access

### 5. Timing of access formation

#### CARI Guidelines

- a. All patients, and especially those with co-morbid conditions, should be referred to a vascular access surgeon well in advance of the anticipated need for haemodialysis. The exact timing depends on patient-related factors and local facilities (level C evidence).
- b. Several procedures may be required to establish access and maturation of access may be prolonged in some patients (level C evidence).
- c. Arteriovenous grafts should be placed only shortly before anticipated use (level C evidence).

## What is the evidence?

No studies available on this subject

## What do the other guidelines say?

**DOQI:** a. Patients should be referred for surgery to attempt construction of a primary AV fistula when their creatinine clearance is  $<25\text{mL/minute}$ , their serum creatinine level is  $>4\text{mg/dL}$ , or within 1 year of an anticipated need for dialysis. The patient should be referred to a nephrologist prior to the need for access to facilitate chronic renal failure treatment and for counseling about modes of ESRD care, including hemodialysis, peritoneal dialysis, and renal transplantation.

b. A new primary fistula should be allowed to mature for at least 1 month, and ideally for 3 to 4 months, prior to cannulation.

c. Dialysis AV grafts should be placed at least 3 to 6 weeks prior to an anticipated need for hemodialysis in patients who are not candidates for primary AV fistulae.

**BRA:** Ideally, this should be ready by the time the patient needs dialysis, which means that 4-12 weeks will be needed depending upon the technique used and the success of the initial attempt. In patients who present late or as uraemic emergencies, dialysis access will usually be by central catheter, and again the jugular is preferable to the subclavian.

**CSN:** Establish AV fistulae when the patient has a creatinine clearance of 15 to 20 ml per min or serum creatinine of 300 to 500  $\mu\text{mol/L}$ , depending on the size and weight of the patient (opinion).

Place dialysis PTFE AV grafts at least 3 to 6 wk before an anticipated need for hemodialysis (opinion).

## Implementation and Audit

Percent of patients commencing chronic haemodialysis with a functioning access.

Patients followed within a clinic for  $>6$  months. Aim for 90%.

Patients with late referral or followed less than 3 months should have a functioning access within 12 weeks of referral or starting HD.

**OUT OF DATE**