Dialysis

Vascular Access

8. Preferred sites

CARI Guidelines

a. Creation of a native arteriovenous fistula is paramount. (level C evidence)

b. Generally, it may be better to use the same upper limb for access commencing distally and working proximally rather than use the other upper limb, or lower limbs. This will depend on patient preference and quality of blood vessels. (level C evidence)

c. In principle, the non-dominant upper limb should be used before the dominant side. (level C evidence)

d. Several sites are available for vascular access in the upper limb. If appropriate, a suggested order of preference for arteriovenous fistulae is (level C evidence):
Anatomical snuff box
Radio-cephalic (wrist or forearm)
Ulnar-basilic
Radio-basilic with vein transposition
Brachio-cephalic
Brachio-basilic

e. Other options available for vascular access are (level C evidence):
Forearm graft
Arm Graft
Lower limb arteriovenous fistula
Thigh graft

What is the evidence?

No studies available on this subject

What do the other guidelines say?

DOQI: The order of preference for placement of AV fistulae in patients requiring chronic hemodialysis is:

- A wrist (radial-cephalic) primary AV fistula
- An elbow (brachial-cephalic) primary AV fistula

If it is not possible to establish either of these types of fistula, access may be established using:

- An arteriovenous graft of synthetic material (e.g., PTFE) or
- A transposed brachial-basilic vein fistula

Cuffed tunneled central venous catheters should be discouraged as permanent vascular access

BRA: The wrist of the non-dominant limb is preferred unless the cephalic vein is poor, or the artery

damaged or absent; if unsuccessful, the dominant limb may be used. The brachial vessels may be tried next, with or without a basilic vein transposition.

CSN: For patients requiring chronic hemodialysis, the preferred type of access is native arteriovenous (AV) fistula. The preferred sites for placing the AV fistula are (in order of preference):

- the wrist (radial-cephalic) and
- an elbow (brachio-cephalic).

If it is not possible to establish either of these types of fistula, access may be established using:

- an AV graft of synthetic material (eg PTFE) or
- a transposed brachial-basilic vein fistula.

In patients who are at high risk for limb ischemia with AV vascular access and who are unsuitable for peritoneal dialysis, use cuffed central venous catheters for AV access (opinion).

Implementation and Audit

Record patency and complications of each type of fistula

Audit - Units should keep statistics and target 80% to be AV fistula as first access device