Dialysis

Vascular Access

9. Choice of type of access

CARI Guidelines

a. A native fistula is superior to an artificial arteriovenous graft. (level B evidence)

b. Graft configuration is not a factor in graft patency (level B evidence)

What is the evidence?

No studies available on this subject

What do the other guidelines say?

DOQI: If a primary AV fistula cannot be established, a synthetic AV graft is the next preferred type of vascular access.

Polytetrafluoroethylene (PTFE) tubes are preferred over other synthetic materials.

There is no convincing evidence to support tapered over uniform tubes, externally supported over unsupported grafts, thick-versus thin-walled configurations, or elastic versus nonelastic material.

Grafts may be placed in straight, looped, or curved configurations. Designs that provide the most surface area for cannulation are preferred. (Opinion)

Location of graft placement is determined by each patient's unique anatomical restrictions, the surgeon's skill, and the anticipated duration of dialysis. (Opinion)

BRA: No guidelines available.

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) (evidence: level II).

Suggestions for Future Research

New synthetic materials should be submitted to randomised prospective studies.