

COMPARISON OF OUTCOMES OF TRANSPOSED UPPER ARM FISTULAS, BRACHIOCEPHALIC FISTULAS, AND UPPER ARM GRAFTS IN HEMODIALYSIS PATIENTS.

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Patients without suitable vascular anatomy for a forearm fistula typically receive an AV access in the upper arm. The three access choices are a brachio-cephalic fistula (BCF), a transposed (brachio-basilic or brachio-cephalic) fistula (TF), or an upper arm graft (UAG). There are few publications comparing the outcomes of these 3 types of upper arm vascular access.

We queried a prospective, computerized database to identify 679 patients who had an elective placement of an upper arm access during a 7-year period. There were no significant differences in age, sex, race, diabetes, HTN, PVD, CAD or CVA among the 3 patient groups. Access outcomes are summarized in the Table.

	BCF	TF	UAG
Number of patients	289	101	289
Primary failure (%)	41*	13	14
Median survival w/o primary failure, days	1178	1641	595*
Median survival with primary failure, days	300	1494*	401

* P < 0.002 vs. the other 2 access types

Primary access failure (failure prior to maturation) was similar for TF and UAG, but much lower than for BCF. When primary failures were EXCLUDED, cumulative access survival (time to permanent failure) was similar for BCF and TF, but much higher than for UAG. However, when primary failures were INCLUDED, access survival was similar for BCF and UAG, but much lower than for TF

In summary, among the 3 types of upper arm access, TF have the best cumulative survival, due to the combination of low PRIMARY failure (similar to UAG) and low SECONDARY failure (similar to BCF). Thus, transposed fistulas should be the access of choice in the upper arm.