

Supplementary Table 1: Sensitivity Analyses with Variation in Cost Inputs

Model patient	Base Case ICER	Change Made to Cost Input					
		Yearly cost of AV fistula equivalent to yearly cost of AV graft			Yearly cost of CVC increased to account for infection related costs		
		Total AV Fistula	Total AV Graft	ICER	Total AV Fistula	Total AV Graft	ICER
40 year old, non- diabetic man	\$34,464	\$573,098	\$424,338	\$57,029	\$597,898	\$523,419	\$28,930
40 year old, non- diabetic woman	\$14,410	\$564,129	\$478,359	\$52,006	\$600,799	\$592,688	\$4,955
40 year old, diabetic man	\$10,311	\$395,058	\$333,294	\$57,695	\$417,898	\$410,139	\$7,297
40 year old, diabetic woman	\$101,815^	\$401,049	\$381,219	\$56,270	\$433,308	\$472,815	\$131,316^
60 year old, non- diabetic man	\$29,208	\$339,898	\$261,415	\$64,381	\$357,305	\$320,678	\$29,904
60 year old, non- diabetic woman	\$21,797^	\$338,356	\$299,758	\$71,522	\$362,326	\$366,229	\$7,036^
60 year old, diabetic man	\$350	\$243,433	\$206,865	\$83,000	\$260,232	\$252,141	\$18,761
60 year old, diabetic woman	\$87,275,255*	\$252,172	\$235,628	\$2,315,774*	\$279,465	\$289,041	\$2,387,049*
80 year old, non-diabetic man	\$18,102	\$212,998	\$173,294	\$83,365	\$228,227	\$211,001	\$35,842
80 year old, non-diabetic woman	\$188,703^	\$215,821	\$195,619	\$262,779	\$237,190	\$236,724	\$5,025
80 year old, diabetic man	\$172^	\$171,998	\$146,140	\$160,190	\$189,764	\$178,703	\$73,350
80 year old, diabetic woman	\$231,853*	\$182,342	\$161,421	\$520,430*	\$207,376	\$196,840	\$232,200*

^ = AV Fistula dominant

* = AV Graft has superior survival

Supplementary Table 2. Initial and cumulative patency probabilities for AV fistula attempt strategy

Patient characteristics	Initial patency after 30 days	Cumulative 1 year patency if first attempt was successful	Cumulative 3 year patency if first attempt was successful	Cumulative 1 year patency if primary failure*	Cumulative 3 year patency if primary failure*
40 year old, non- diabetic man	86%	77%	69%	65%	34%
40 year old, non- diabetic woman	75%	68%	60%	56%	30%
40 year old, diabetic man	78%	70%	62%	59%	31%
40 year old, diabetic woman	63%	57%	50%	47%	25%
60 year old, non- diabetic man	77%	69%	62%	58%	31%
60 year old, non- diabetic woman	62%	56%	50%	47%	25%
60 year old, diabetic man	66%	59%	53%	50%	26%
60 year old, diabetic woman	49%	44%	39%	37%	20%
80 year old, non-diabetic man	66%	59%	53%	50%	26%
80 year old, non-diabetic woman	48%	43%	38%	36%	19%
80 year old, diabetic man	52%	47%	42%	39%	21%
80 year old, diabetic woman	35%	32%	28%	26%	14%

*Represents the patency probability for those patients who initially fail to achieve a working AVF, but then achieve a functioning AVF on a second attempt