

Table 6.1: Place of Renal Transplantation 1993-2002

Year	1993		1994		1995		1996		1997	
	No	%	No	%	No	%	No	%	No	%
HKL	36	26	33	16	36	35	33	22	29	23
UH	3	2	5	2	10	10	6	4	6	5
Other local	0	0	0	0	0	0	0	0	0	0
India	86	61	143	70	21	20	5	3	7	6
China	13	9	21	10	35	34	104	70	80	65
Other overseas	2	1	1	0	1	1	1	1	2	2
TOTAL	140	100	203	100	103	100	149	100	124	100

Year	1998		1999		2000		2001		2002	
	No	%	No	%	No	%	No	%	No	%
HKL	33	33	36	30	28	20	33	21	29	18
UH	7	7	16	13	19	13	22	14	14	9
Other local	0	0	1	1	1	1	2	1	0	0
India	6	6	5	4	9	6	8	5	11	7
China	50	51	60	50	80	56	78	50	97	60
Other overseas	3	3	2	2	0	0	6	4	2	1
TOTAL	99	100	120	100	143	100	156	100	163	100

Table 6.2: Unadjusted Transplant Patient Survival related to Year of transplant 1993-2002

Year	1993-1997		1998-2002	
Interval (months)	% survival	SE	% survival	SE
6	96	1	96	1
12	95	1	95	1
24	94	1	93	1
36	92	1	92	1
48	90	1	92	1
60	88	1	92	1

SE = standard error

Figure 6.2: Unadjusted Transplant Patient Survival related to Year of transplant 1993-2002

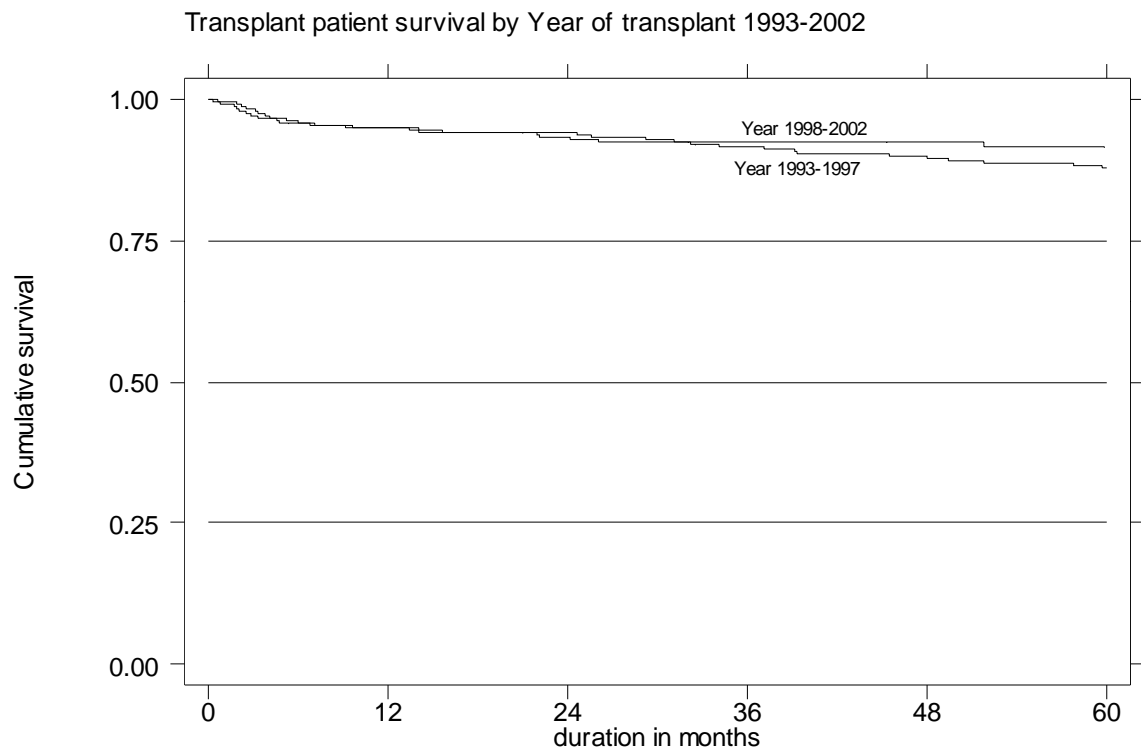


Table 6.3: Unadjusted Transplant Graft Survival related to Year of transplant 1993-2002

Year	1993-1997		1998-2002	
Interval (months)	% survival	SE	% survival	SE
6	93	1	93	1
12	92	1	91	1
24	89	1	88	1
36	84	1	86	1
48	80	2	84	2
60	76	2	82	2

SE = standard error

Figure 6.3: Unadjusted Transplant Graft Survival related to Year of transplant 1993-2002

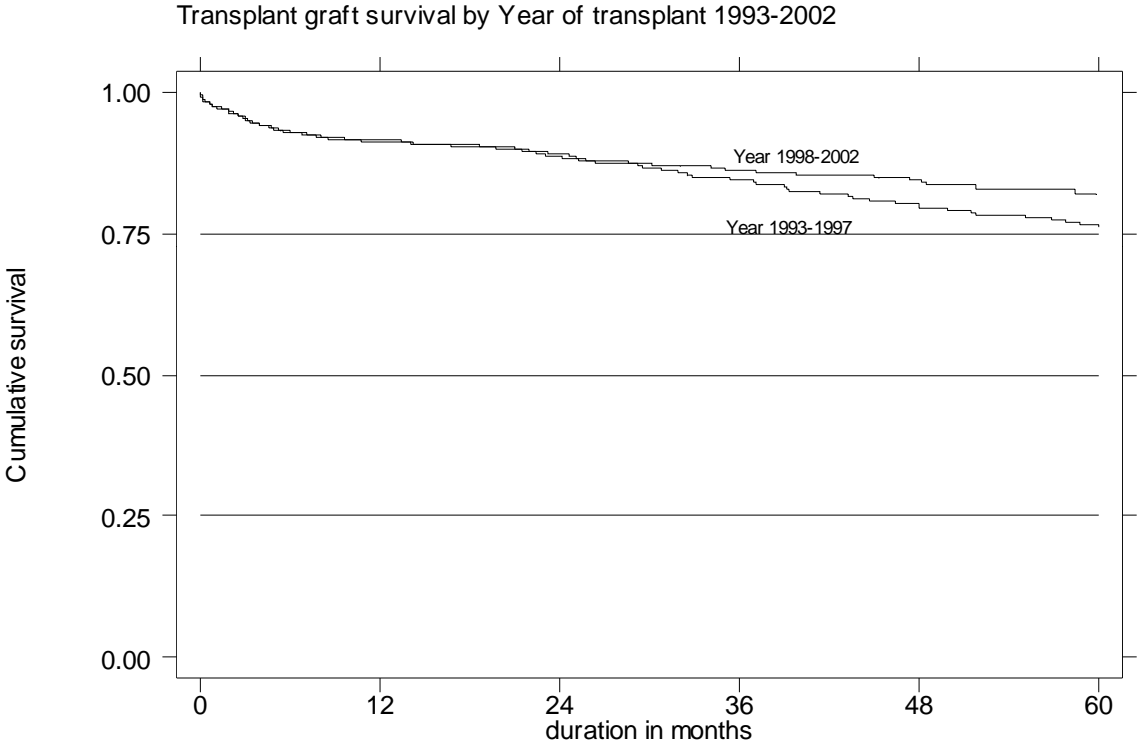


Table 6.4: Renal Transplant Recipients' Characteristics 1993-2002

Year	1993	1994	1995	1996	1997
New Transplant patients	140	203	103	149	124
Mean age \pm sd	38 \pm 13	38 \pm 12	35 \pm 12	38 \pm 11	35 \pm 12
% Male	60	67	57	56	65
% Diabetic	10	10	12	9	11
% HBsAg	8	8	6	11	5
% Anti-HCV+	16	8	12	15	6

Year	1998	1999	2000	2001	2002
New Transplant patients	99	120	143	156	163
Mean age \pm sd	37 \pm 11	37 \pm 13	39 \pm 13	40 \pm 13	40 \pm 13
% Male	60	62	64	62	56
% Diabetic	9	11	13	16	14
% HBsAg	5	4	4	4	6
% Anti-HCV+	15	8	6	13	7

Table 6.5: Causes of Graft Failure 1993-2002

Year	1993		1994		1995		1996		1997	
	No	%	No	%	No	%	No	%	No	%
Rejection	1	25	1	14	5	45	4	40	11	58
CsA or drug toxicity	1	25	0	0	0	0	0	0	0	0
Ureteric obstruction	0	0	1	14	1	9	0	0	0	0
Vascular causes; RAS/ thrombosis	1	25	1	14	1	9	1	10	4	21
Renal disease; recurrent/de novo	0	0	0	0	0	0	2	20	0	0
Technical complication	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	1	9	0	0	1	5
Unknown	1	25	4	57	3	27	3	30	3	16
TOTAL	4	100	7	100	11	100	10	100	19	100

Year	1998		1999		2000		2001		2002	
	No	%	No	%	No	%	No	%	No	%
Rejection	18	60	12	60	13	57	7	41	12	48
CsA or drug toxicity	0	0	0	0	0	0	0	0	1	4
Ureteric obstruction	0	0	0	0	0	0	0	0	0	0
Vascular causes; RAS or thrombosis	1	3	0	0	3	13	1	6	0	0
Renal disease; recurrent or de novo	1	3	0	0	0	0	1	6	1	4
Technical complication	0	0	0	0	3	13	1	6	0	0
Others	2	7	0	0	2	9	1	6	1	4
Unknown	8	27	8	40	2	9	6	35	10	40
TOTAL	30	100	20	100	23	100	17	100	25	100

Table 6.6: Stock and flow of Renal Transplant Patients 1993-2002

Year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
New transplant patients	140	203	103	149	124	99	120	143	156	163
Died	3	12	5	14	20	11	14	20	23	19
Returned to dialysis	4	7	11	10	19	30	20	23	17	25
Lost to F/U	0	1	0	1	0	1	2	1	2	1
Functioning graft at 31st December	133	316	403	527	612	669	753	852	966	1084

Table 6.7: Unadjusted Transplant Patient and Graft Survival 1993-2002

Interval (months)	Patient Survival		Graft Survival	
	% survival	SE	% survival	SE
6	96	1	93	1
12	95	1	91	1
24	94	1	89	1
36	92	1	85	1
48	91	1	81	1
60	89	1	78	1

Figure 6.7: Unadjusted Transplant Patient and Graft Survival 1993-2002

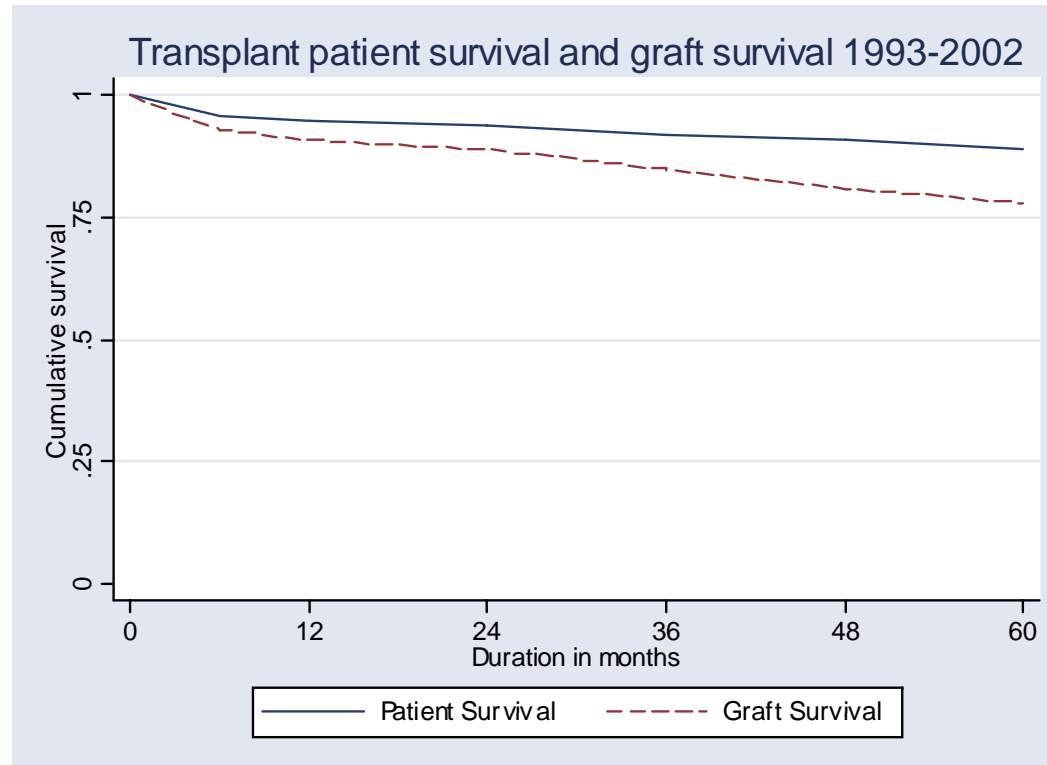


Table 6.8: Unadjusted Transplant Patient Survival related to Age 1993-2002

Age	<20		20-39		40-54		≥55	
Interval (months)	% survival	SE	% survival	SE	% survival	SE	% survival	SE
6	98	1	97	1	94	1	95	2
12	98	1	96	1	93	1	93	2
24	98	1	96	1	91	1	89	3
36	97	2	95	1	90	1	83	4
48	97	2	93	1	89	1	81	4
60	97	2	93	1	86	2	74	5

SE = standard error

Figure 6.8: Unadjusted Transplant Patient Survival related to Age 1993-2002

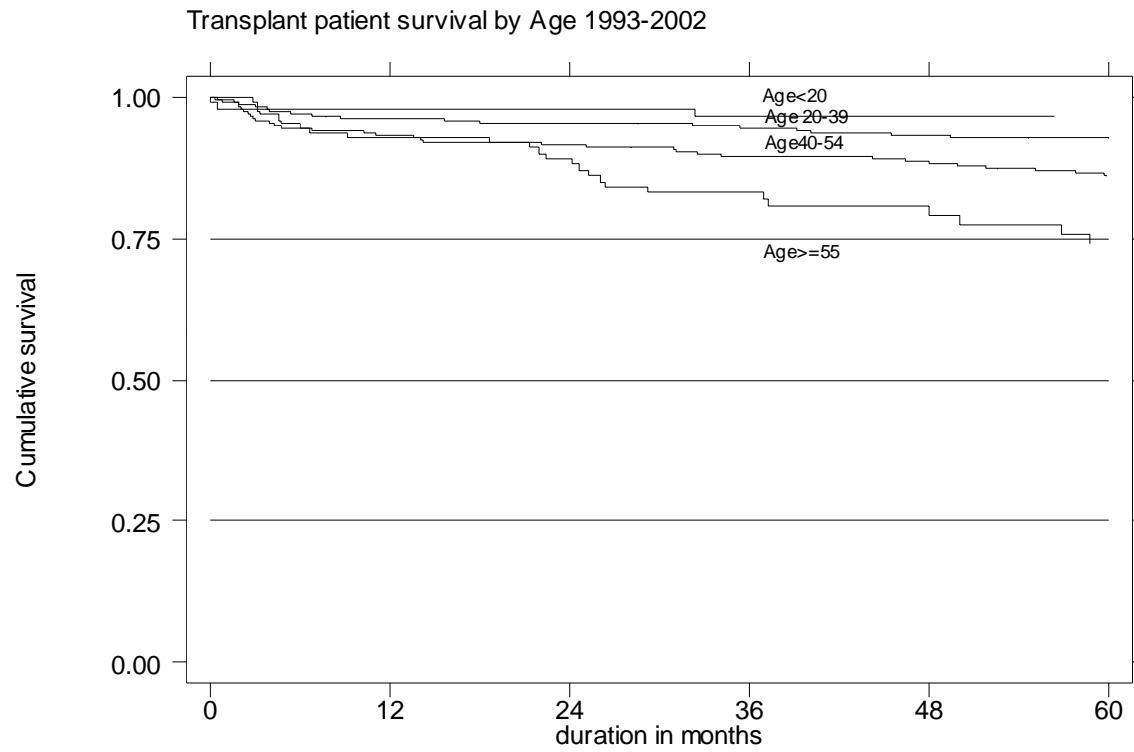


Table 6.9: Unadjusted Transplant Graft Survival related to Age 1993-2002

Age	<20		20-39		40-54		≥55	
Interval (months)	% survival	SE	% survival	SE	% survival	SE	% survival	SE
6	90	3	93	1	93	1	95	2
12	89	3	91	1	92	1	93	2
24	88	3	89	1	89	1	88	3
36	83	4	86	1	85	2	81	4
48	77	5	82	2	82	2	78	4
60	77	5	79	2	78	2	67	5

SE = standard error

Figure 6.9: Unadjusted Transplant Graft Survival related to Age 1993-2002

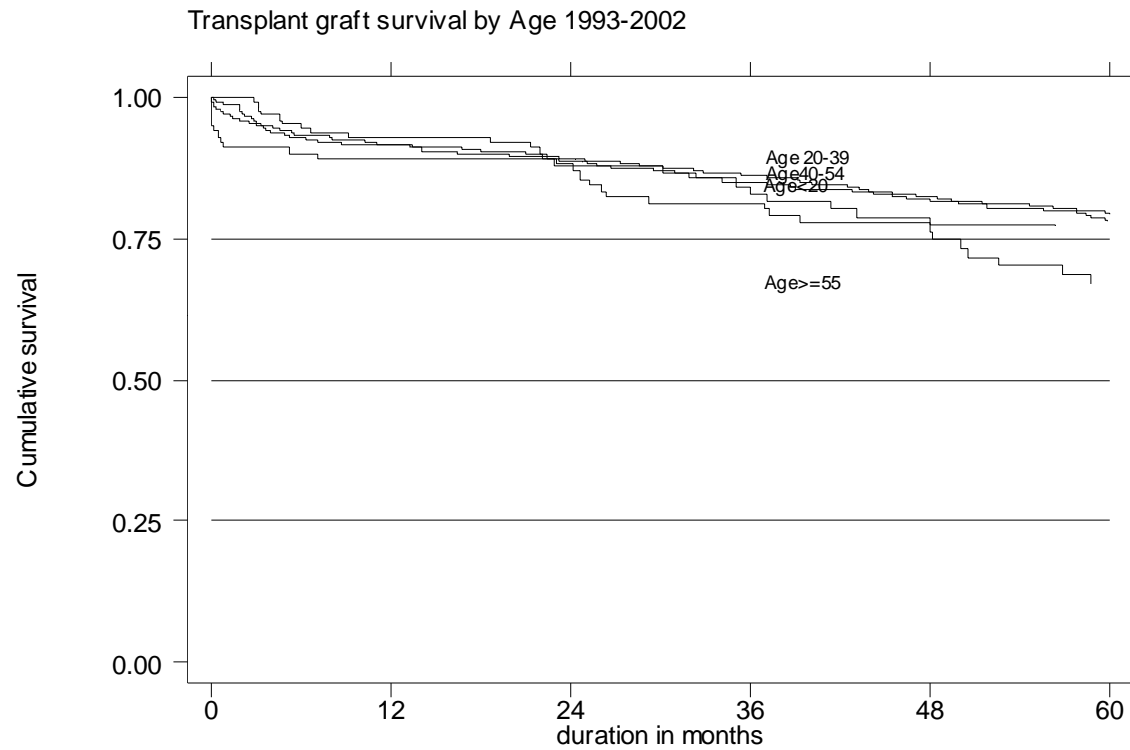


Table 6.10: Unadjusted Transplant Patient Survival related to Ethnicity 1993-2002

Ethnic	Malay		Chinese		Indian		Others	
	% Survival	SE	% Survival	SE	% Survival	SE	% Survival	SE
6	94	2	97	1	93	2	95	2
12	92	2	96	1	93	2	92	3
24	90	2	95	1	92	3	90	3
36	88	2	93	1	87	3	89	3
48	86	3	92	1	86	4	88	4
60	85	3	90	1	86	4	88	4

SE=standard error

Figure 6.10: Unadjusted Transplant Patient Survival related to Ethnic 1993-2002

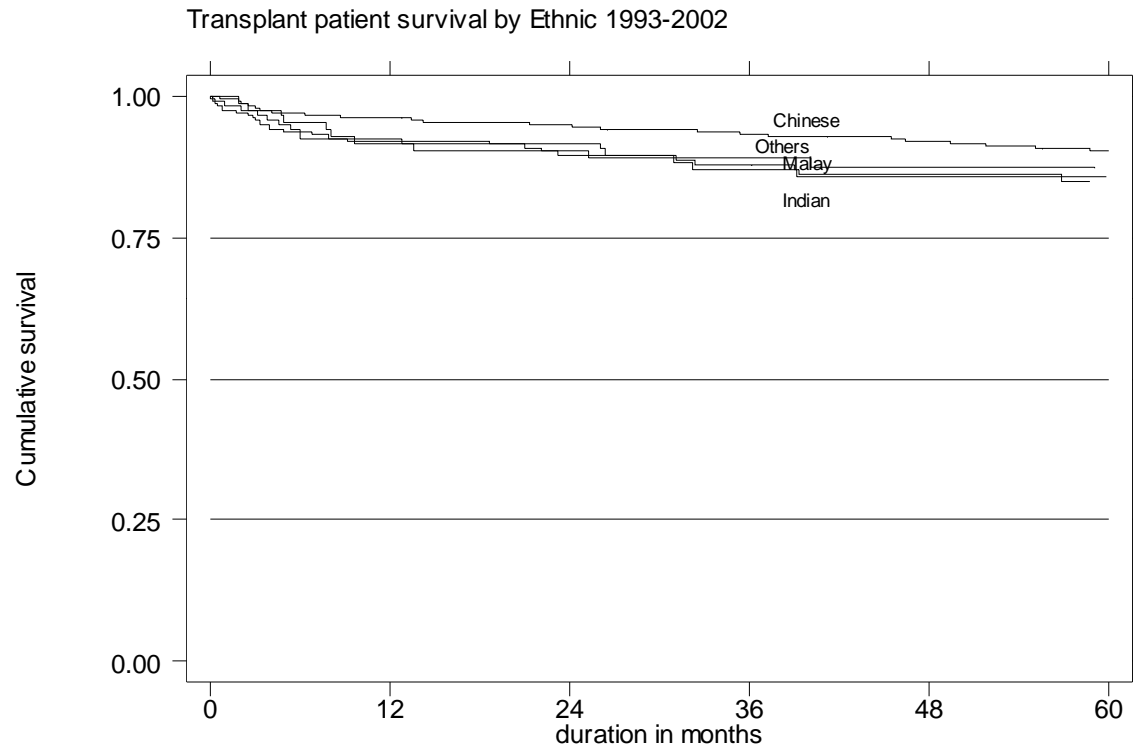


Table 6.11: Unadjusted Transplant Graft Survival related to Ethnicity 1993-2002

Ethnic	Malay		Chinese		Indian		Others	
	% Survival	SE	% Survival	SE	% Survival	SE	% Survival	SE
6	88	2	94	1	93	2	90	3
12	85	2	93	1	91	3	87	4
24	80	3	91	1	86	3	86	4
36	76	3	88	1	75	4	82	4
48	74	3	84	1	70	5	80	4
60	72	3	80	1	66	5	79	5

SE=standard error

Figure 6.11: Unadjusted Transplant Graft Survival related to Ethnicity 1993-2002



Table 6.12: Unadjusted Transplant Graft Survival related to BMI 1993-2002

BMI	<18.5		18.5-25		>25	
Interval (months)	% Survival	SE	% Survival	SE	% Survival	SE
6	89	2	93	1	96	1
12	89	2	91	1	95	1
24	87	3	88	1	93	2
36	82	3	84	1	89	2
48	73	4	81	1	87	2
60	73	4	77	2	82	3

SE=standard error

Figure 6.12: Unadjusted Transplant Graft Survival related to BMI 1993-2002

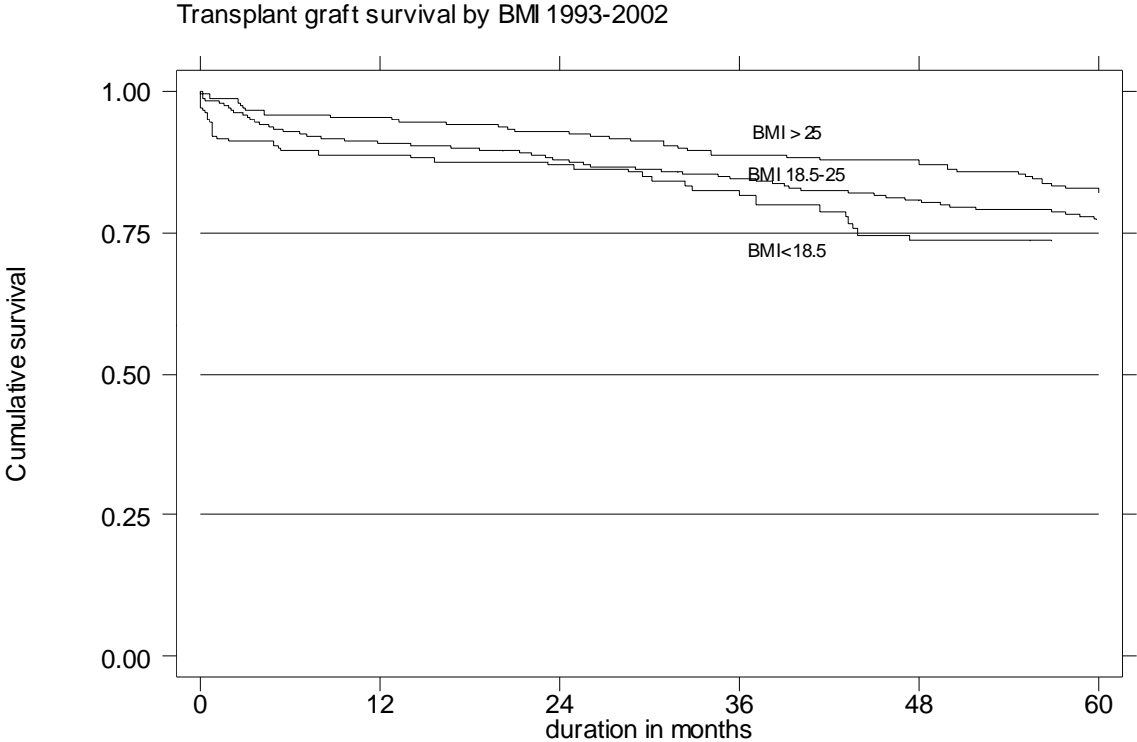


Table 6.13: Unadjusted Transplant Patient Survival related to Diabetes Mellitus 1993-2002

Diabetes Mellitus	Non-diabetic		Diabetic	
Interval (months)	% Survival	SE	% Survival	SE
6	96	1	96	1
12	95	1	93	2
24	94	1	92	2
36	92	1	89	3
48	91	1	88	3
60	90	1	83	4

SE=standard error

Figure 6.13: Unadjusted Transplant Patient Survival related to Diabetes Mellitus 1993-2002

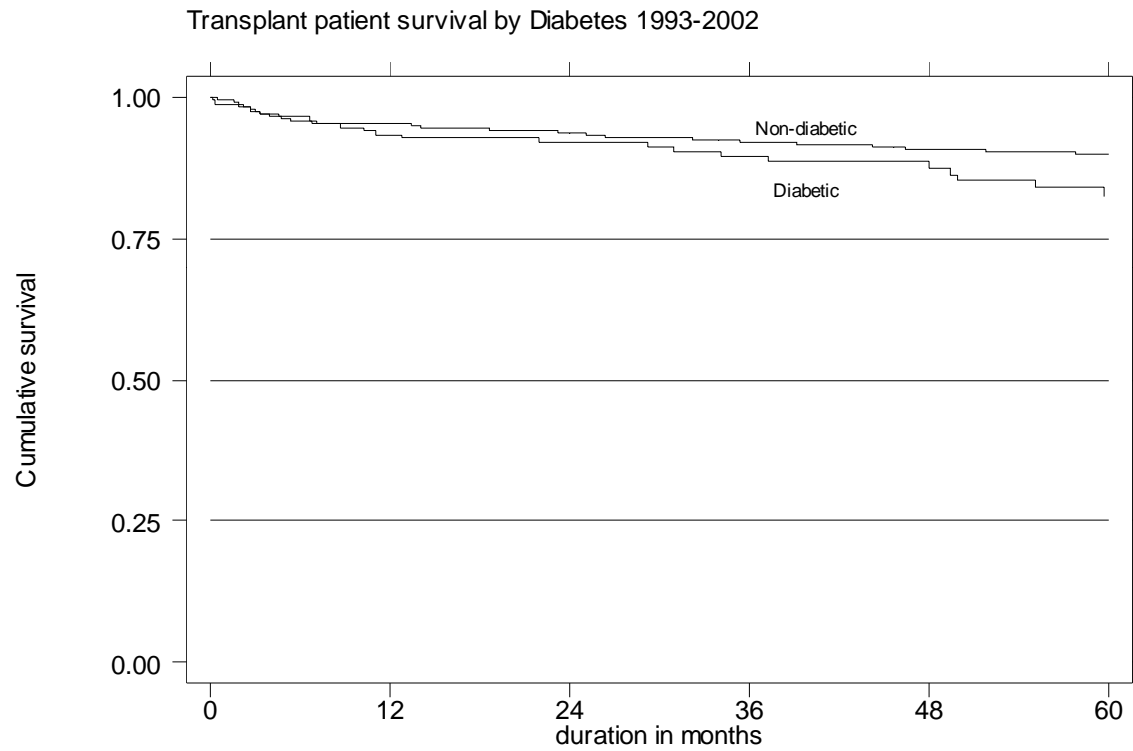


Table 6.14: Unadjusted Transplant Graft Survival related to Diabetes Mellitus 1993-2002

Diabetes Mellitus	Non-diabetic		Diabetic	
Interval (months)	% Survival	SE	% Survival	SE
6	92	1	96	1
12	91	1	93	2
24	88	1	91	2
36	85	1	87	3
48	81	1	83	3
60	78	1	76	4

SE=standard error

Figure 6.14: Unadjusted Transplant Graft Survival related to Diabetes Mellitus 1993-2002

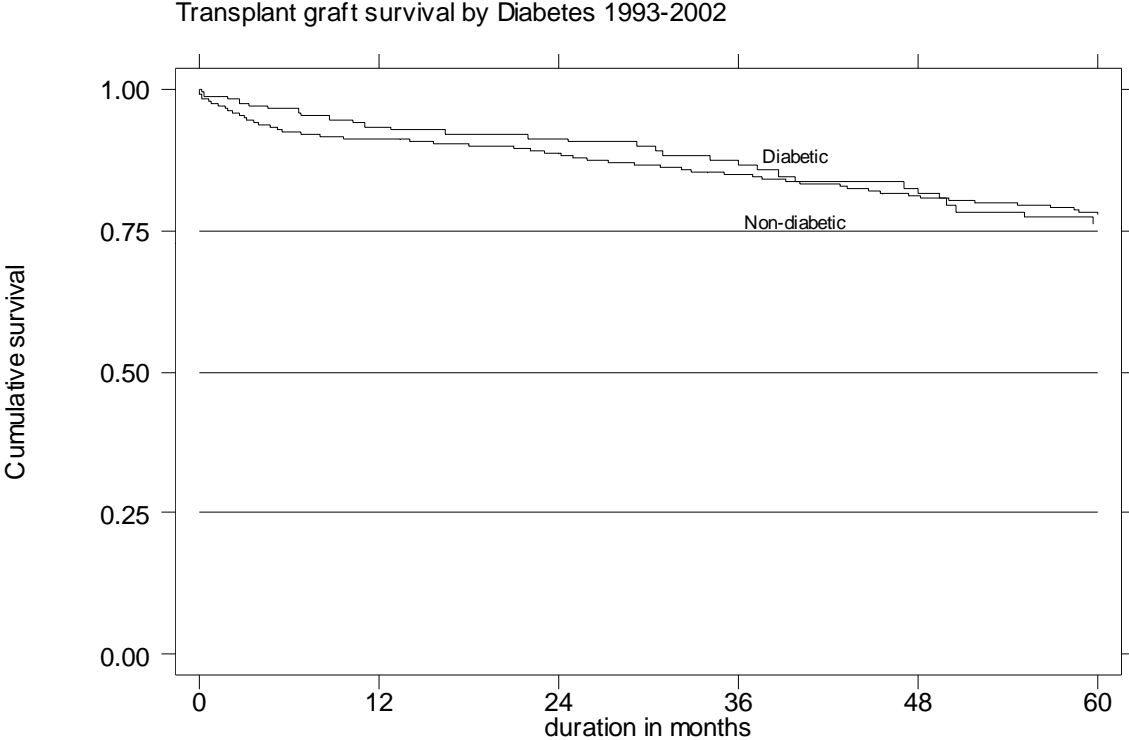


Table 6.15: Unadjusted Transplant Patient Survival related to HbsAg status 1993-2002

Ever HbsAg	Negative		Positive	
Interval (months)	% Survival	SE	% Survival	SE
6	96	1	93	2
12	95	1	90	3
24	94	1	89	3
36	92	1	85	4
48	91	1	84	4
60	90	1	81	4

SE=standard error

Figure 6.15: Unadjusted Transplant Patient Survival related to HbsAg status 1993-2002

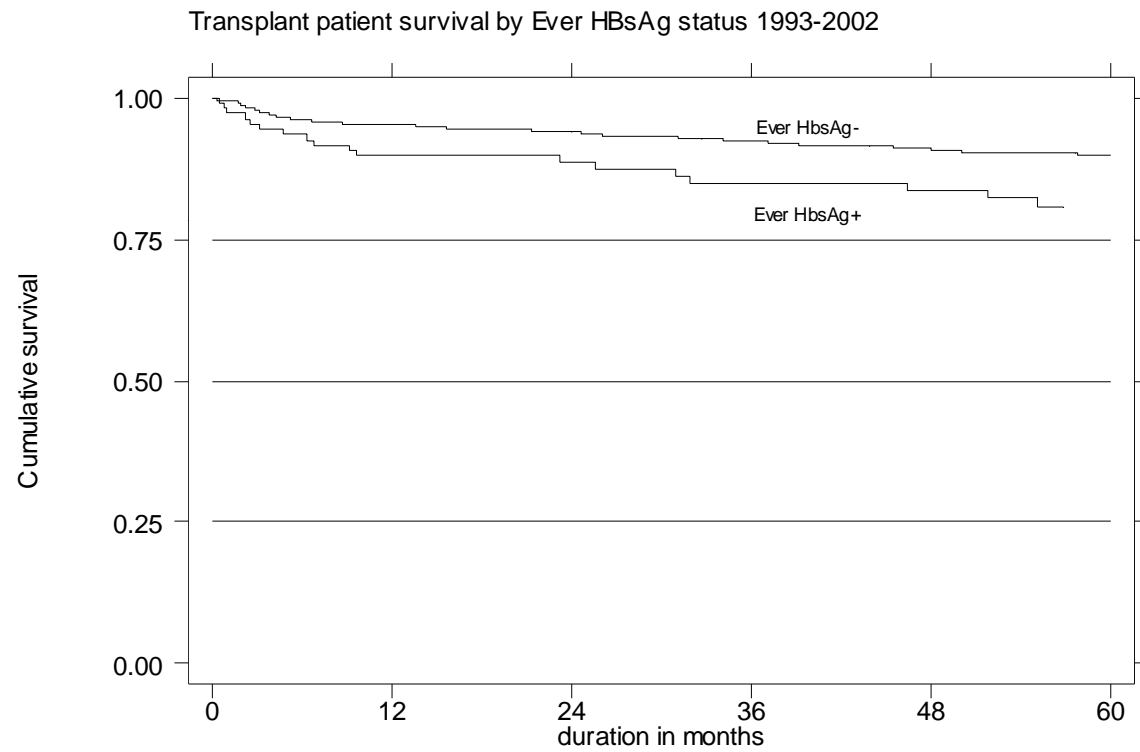


Table 6.16: Unadjusted Transplant Graft Survival related to HBsAg status 1993-2002

Ever HbsAg	Negative		Positive	
Interval (months)	% Survival	SE	% Survival	SE
6	93	1	88	3
12	92	1	84	3
24	89	1	82	4
36	86	1	76	4
48	82	1	73	4
60	79	1	69	5

SE=standard error

Figure 6.16: Unadjusted Transplant Graft Survival related to HBsAg status 1993-2002

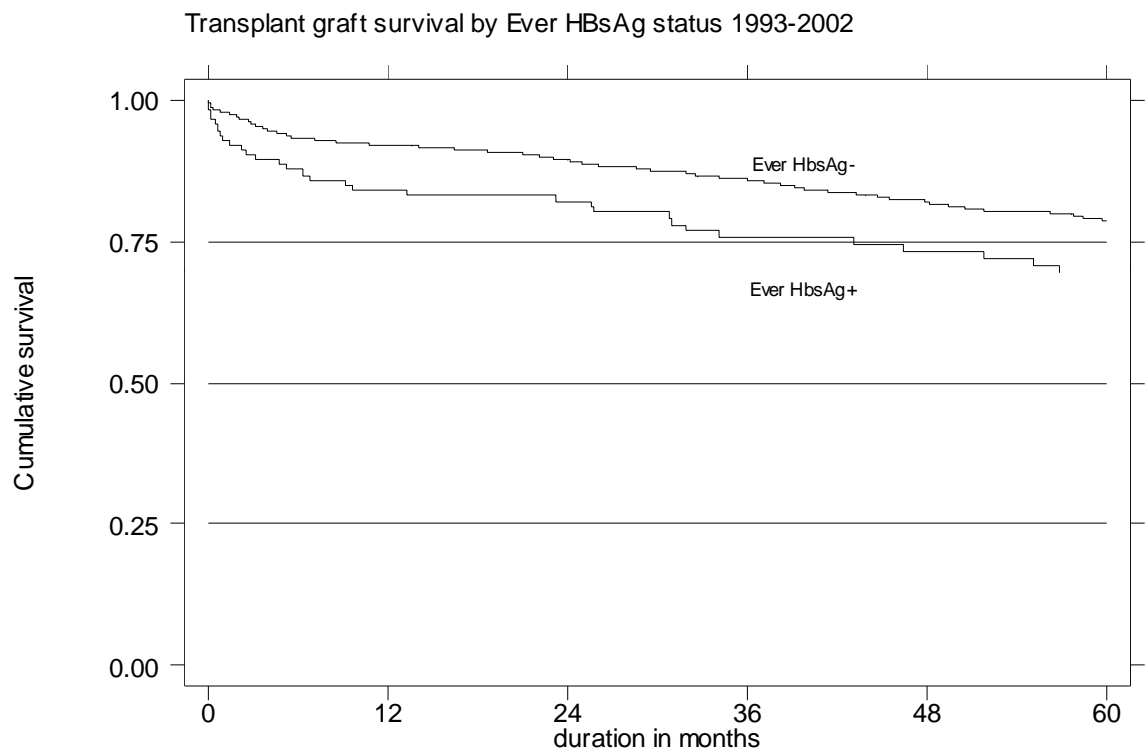


Table 6.17: Unadjusted Transplant Graft Survival related to Anti-HCV status 1993-2002

Ever Anti-HCV	Negative		Positive	
Interval (months)	% Survival	SE	% Survival	SE
6	94	1	88	2
12	93	1	85	2
24	91	1	79	3
36	87	1	72	3
48	84	1	65	3
60	81	1	62	4

SE=standard error

Figure 6.17: Unadjusted Transplant Graft Survival related to Anti-HCV status 1993-2002

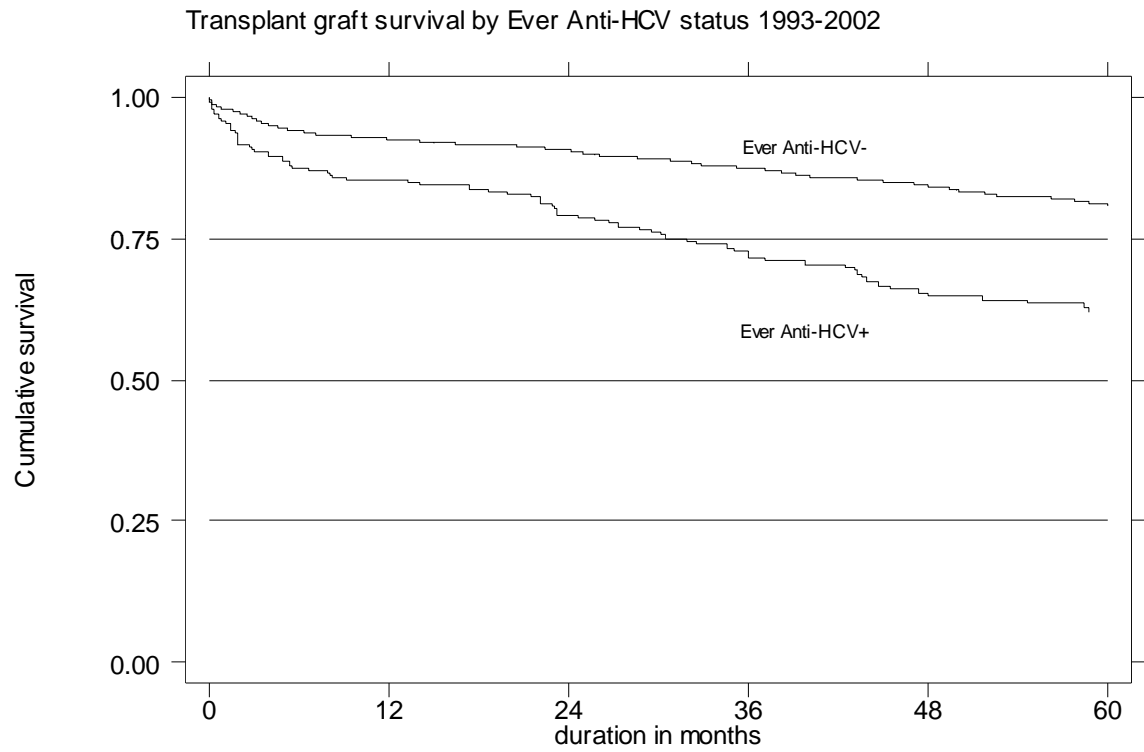


Table 6.18: Unadjusted Transplant Patient Survival related to Cardiovascular Disease 1993-2002

Anti-HCV	No		Yes	
Interval (months)	% Survival	SE	% Survival	SE
6	96	1	95	2
12	95	1	93	3
24	94	1	89	3
36	92	1	86	4
48	91	1	83	4
60	90	1	77	4

SE=standard error

Figure 6.18: Unadjusted Transplant Patient Survival related to Cardiovascular Disease 1993-2002

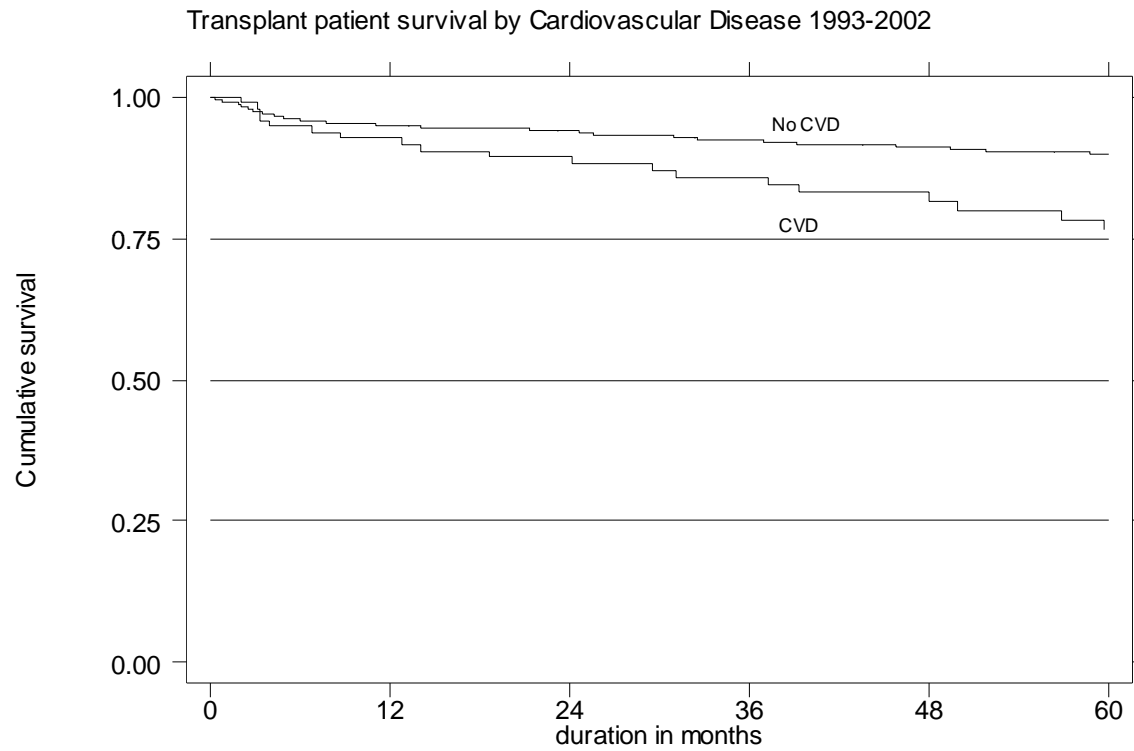


Table 6.19: Unadjusted Transplant Graft Survival related to Cardiovascular Disease 1993-2002

Anti-HCV	No		Yes	
Interval (months)	% Survival	SE	% Survival	SE
6	93	1	93	3
12	92	1	91	3
24	89	1	87	3
36	85	1	79	4
48	82	1	72	5
60	79	1	65	5

SE=standard error

Figure 6.19: Unadjusted Transplant Graft Survival related to Cardiovascular Disease 1993-2002

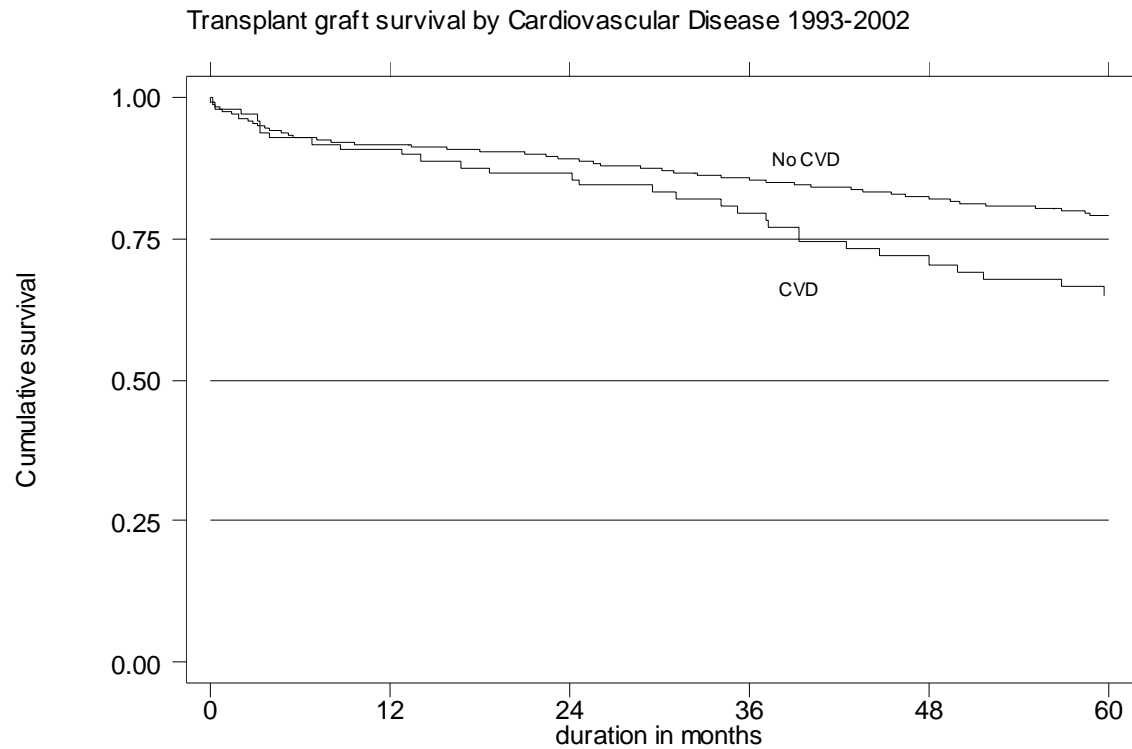


Table 6.20: Unadjusted Transplant Patient Survival related to Prior Dialysis Time 1993-2002

Prior dialysis time	<1 years		1-<3 years		≥3 years	
Interval (months)	% Survival	SE	% Survival	SE	% Survival	SE
6	97	1	96	1	92	2
12	97	1	94	1	91	2
24	96	1	93	1	89	2
36	94	1	91	1	88	2
48	92	1	90	2	87	2
60	90	1	90	2	87	2

SE=standard error

Figure 6.20: Unadjusted Transplant Patient Survival related to Prior Dialysis Time 1993-2002

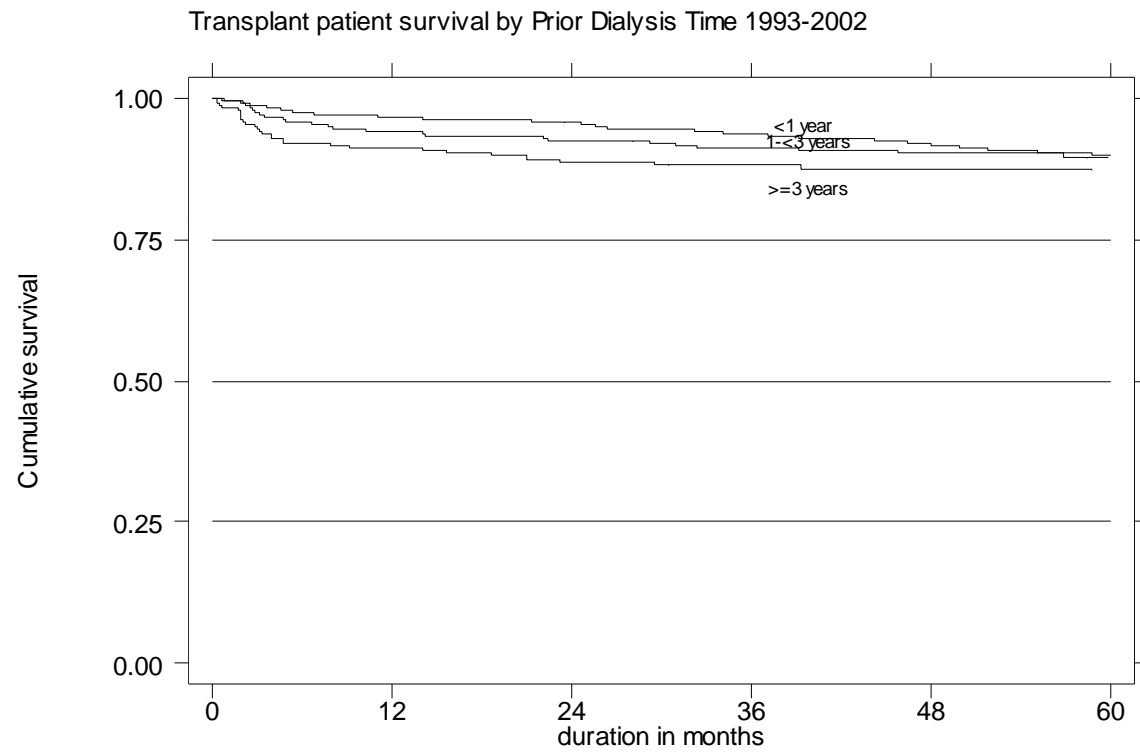


Table 6.21: Unadjusted Transplant Graft Survival related to Prior Dialysis Time 1993-2002

Prior dialysis time	<1 years		1-<3 years		≥3 years	
Interval (months)	% Survival	SE	% Survival	SE	% Survival	SE
6	95	1	93	1	88	2
12	94	1	91	1	86	2
24	92	1	88	2	83	2
36	88	1	84	2	80	3
48	84	1	79	2	79	3
60	80	2	76	2	77	3

SE=standard error

Figure 6.21: Unadjusted Transplant Graft Survival related to Prior Dialysis Time 1993-2002

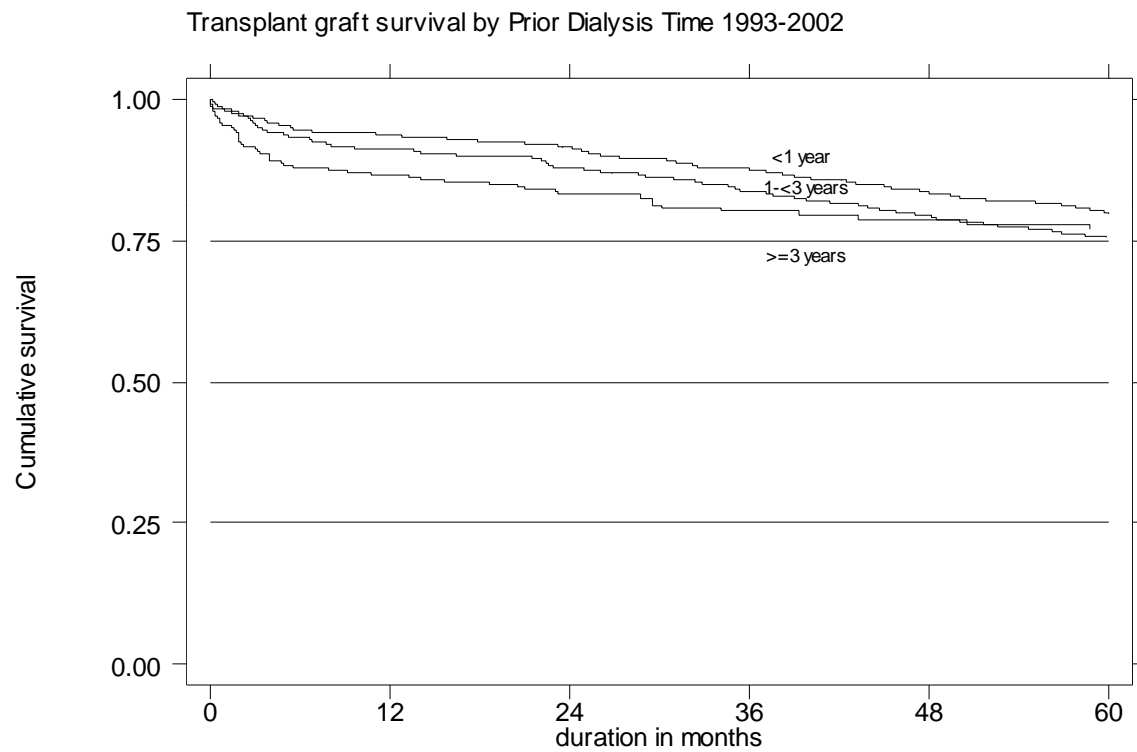


Table 6.22: Unadjusted Transplant Patient Survival related to Type of Transplant 1993-2002

Type of Transplant	Commercial Cadaver		Commercial Live Donor		Live Donor		Cadaver	
Interval (months)	% Survival	SE	% Survival	SE	% Survival	SE	% Survival	SE
6	97	1	96	1	98	1	88	3
12	96	1	95	1	97	1	86	3
24	94	1	94	1	97	1	84	3
36	92	1	91	2	96	1	83	3
48	91	1	90	2	95	1	83	3
60	89	1	87	2	94	1	83	3

SE=standard error

Figure 6.22: Unadjusted Transplant Patient Survival related to Type of Transplant 1993-2002

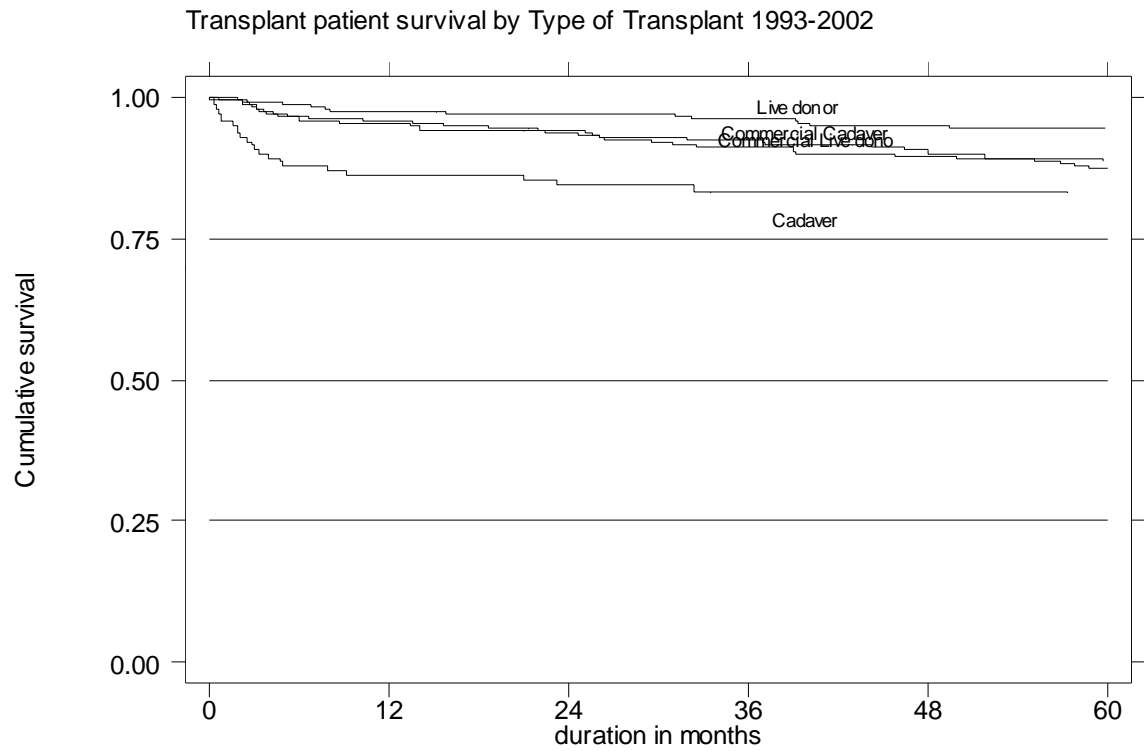


Table 6.23: Unadjusted Transplant Graft Survival related to Type of Transplant 1993-2002

Type of Transplant	Commercial Cadaver		Commercial Live Donor		Live Donor		Cadaver	
	% Survival	SE	% Survival	SE	% Survival	SE	% Survival	SE
6	95	1	94	1	93	1	82	3
12	94	1	93	1	92	2	79	3
24	91	1	90	2	90	2	74	4
36	89	1	84	2	86	2	72	4
48	85	2	78	3	83	2	72	4
60	81	2	74	3	81	2	72	4

SE=standard error

Figure 6.23: Unadjusted Transplant Graft Survival related to Type of Transplant 1993-2002

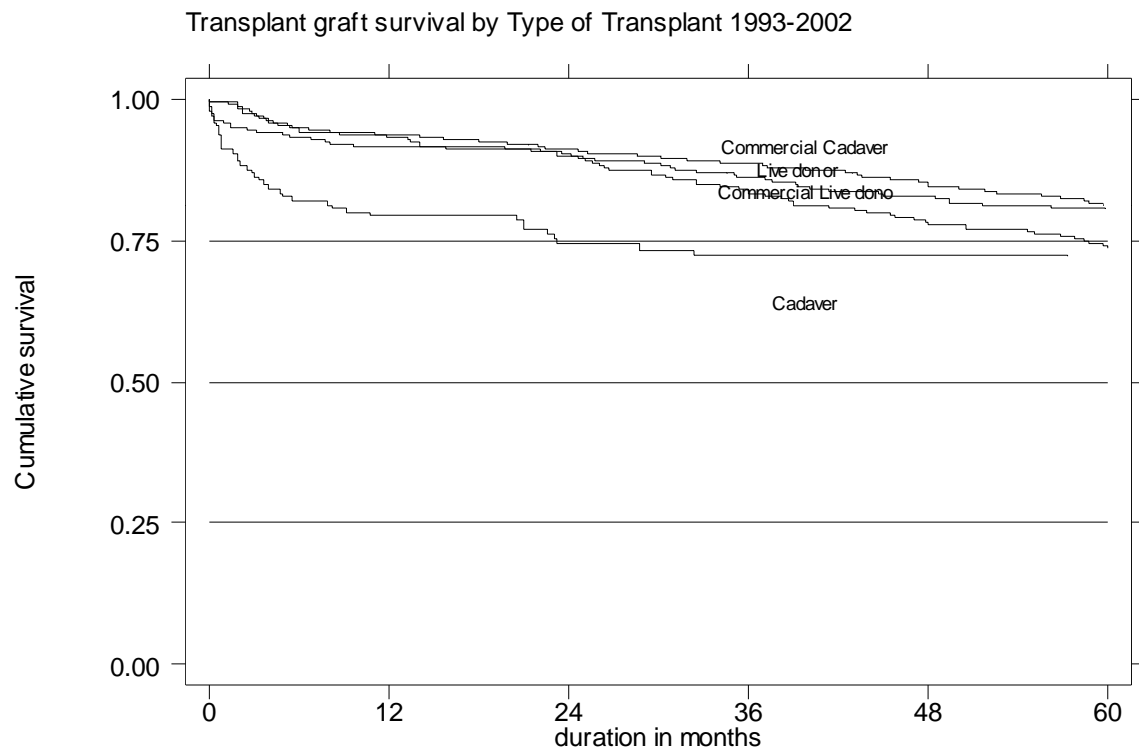


Table 6.24: Risk factors for Transplant Patient Survival 1993-2002

Factors	N	Hazard ratio	95% CI	P value
<i>Year of transplant:</i>				
1993-1997 (ref.*)	719	1.00		
1998-2002	681	0.61	(0.40,0.94)	0.024
<i>Age at transplant:</i>				
<20	100	0.44	(0.13,1.44)	0.175
20-39 (ref.*)	652	1.00		
40-54	524	2.03	(1.36,3.02)	0.001
>=55	124	3.90	(2.35,6.46)	0.000
<i>Gender:</i>				
Male (ref.*)	856	1.00		
Female	544	0.87	(0.62,1.22)	0.415
<i>Primary diagnosis:</i>				
Unknown (ref.*)	618	1.00		
Diabetes Mellitus	151	1.52	(0.95,2.43)	0.077
GN / SLE	433	0.77	(0.49,1.19)	0.238
Polycystic kidney	21	2.37	(0.94,5.60)	0.069
Obstructive nephropathy	57	1.86	(0.97,3.57)	0.061
Others	120	1.14	(0.63,2.06)	0.657
<i>Type of Transplant:</i>				
Commercial cadaver (ref.*)	603	1.00		
Commercial live donor	290	1.26	(0.84,1.89)	0.268
Living donor	341	1.05	(0.61,1.80)	0.872
Cadaver	145	3.94	(2.11,7.39)	0.000

Factors	N	Hazard ratio	95% CI	P value
<i>HbsAg:</i>				
Negative (ref.*)	1287	1.00		
Positive	113	1.88	(1.16,3.02)	0.009
<i>Anti-HCV:</i>				
Negative (ref.*)	1183	1.00		
Positive	217	0.90	(0.56,1.44)	0.664
<i>Prior dialysis time:</i>				
<1 years	717	1.00		
1-<3 years	417	1.41	(0.97,2.06)	0.074
>=3 years	266	1.13	(0.66,1.94)	0.646

* ref: Reference group

Table 6.25: Risk factors for Graft Survival 1993-2002

Factors	N	Hazard ratio	95% CI	P value
<i>Year of transplant:</i>				
1993-1997 (ref.*)	719	1.00		
1998-2002	681	0.75	(0.56,1.01)	0.060
<i>Gender:</i>				
Male (ref.*)	856	1.00		
Female	544	0.88	(0.70,1.10)	0.270
<i>Age at transplant:</i>				
<20	100	0.91	(0.57,1.46)	0.706
20-39 (ref.*)	652	1.00		
40-54	524	1.08	(0.84,1.39)	0.546
>=55	124	1.63	(1.11,2.38)	0.011
<i>Primary diagnosis:</i>				
Unknown (ref.*)	618	1.00		
Diabetes Mellitus	151	1.44	(1.00,2.08)	0.049
GN / SLE	433	1.02	(0.78,1.34)	0.864
Polycystic kidney	21	2.38	(1.15,4.90)	0.019
Obstructive nephropathy	57	1.33	(0.81,2.19)	0.259
Others	120	1.32	(0.88,1.98)	0.178
<i>Type of Transplant:</i>				
Commercial cadaver(ref.*)	603	1.00		
Commercial live donor	290	1.43	(1.08,1.90)	0.014
Living donor	341	1.15	(0.84,1.60)	0.384
Cadaver	145	2.26	(1.45,3.50)	0.000

Factors	N	Hazard ratio	95% CI	P value
<i>HbsAg:</i>				
Negative (ref.*)	1287	1.00		
Positive	113	1.60	(1.15,2.22)	0.005
<i>Anti-HCV:</i>				
Negative (ref.*)	1183	1.00		
Positive	217	2.10	(1.62,2.72)	0.000
<i>BMI:</i>				
<18.5 (ref.*)	178	1.00		
18.5-25	949	0.66	(0.47,0.92)	0.013
>25	273	0.49	(0.33,0.74)	0.000
Prior Dialysis Time				
<1 year	717	1.00		
1-<3 years	417	1.24	(0.96,1.60)	0.093
≥3 years	266	0.87	(0.60,1.25)	0.453

* ref: Reference group

Figure 6.24: Adjusted Transplant Patient Survival related to Year of Transplant 1993-2002

(Adjusted for age, gender, primary diagnosis, type of transplant, HBsAg and Anti-HCV status)

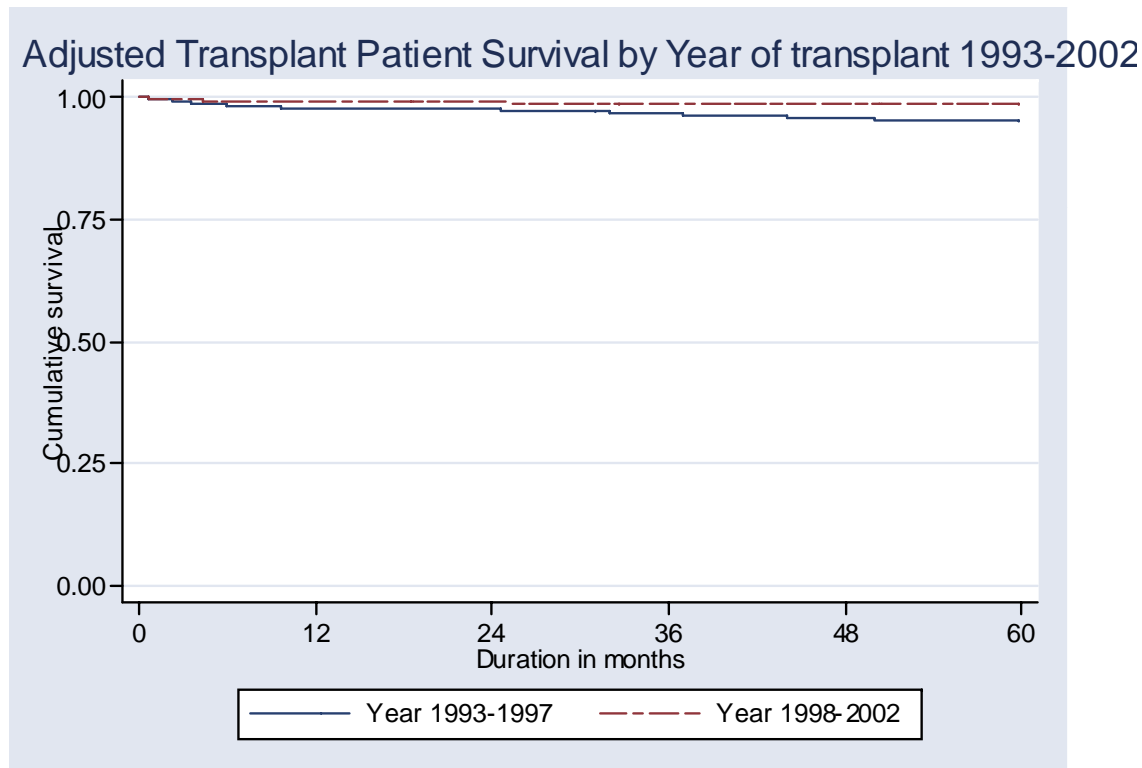


Figure 6.25: Adjusted Graft Survival related to Year of Transplant 1993-2002
(Adjusted for age, gender, primary diagnosis, type of transplant, BMI, HBsAg and Anti-HCV status)

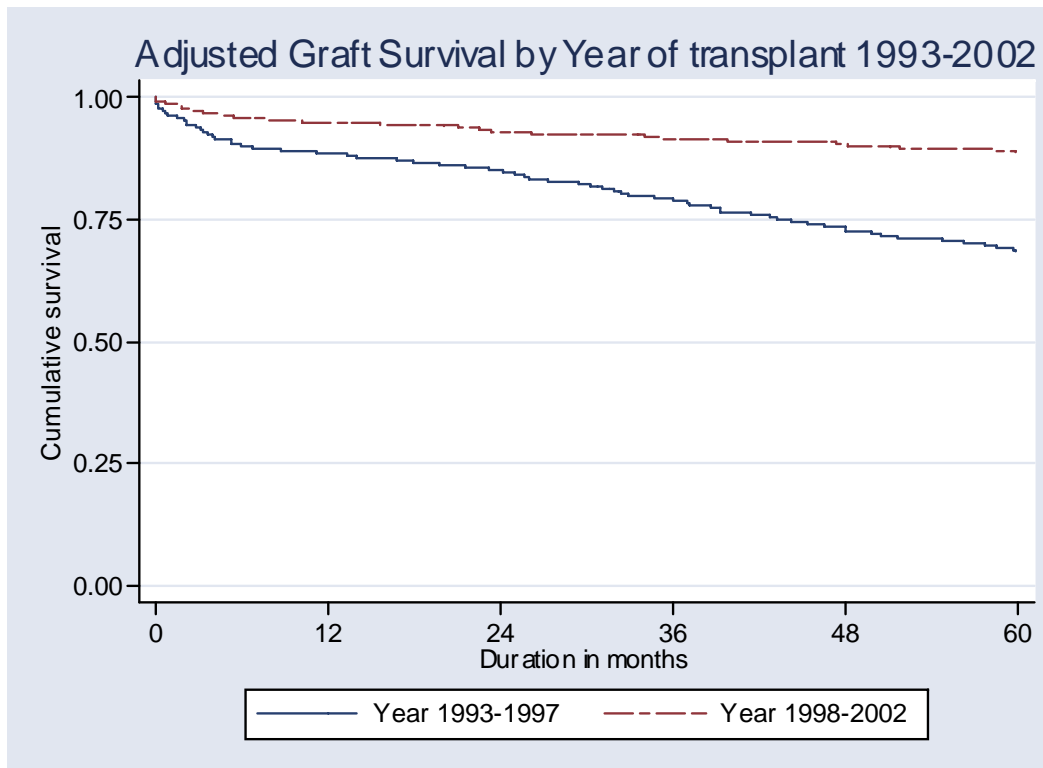


Table 6.26: Unadjusted Transplant Patient Survival related to Diabetes Mellitus 1993-2002

Diabetes Mellitus	Non-diabetic		Diabetic	
Interval (months)	% Survival	SE	% Survival	SE
6	96	1	96	1
12	95	1	93	2
24	94	1	92	2
36	92	1	89	3
48	91	1	88	3
60	90	1	83	4

SE=standard error

Table 6.27: Unadjusted HD Patient Survival related to Diabetes Mellitus 1993-2002

Diabetes Mellitus	Non-diabetic		Diabetic	
Interval (months)	% Survival	SE	% Survival	SE
6	95	0.2	93	0.3
12	92	0.3	87	1
24	86	0.4	74	1
36	81	1	64	1
48	76	1	54	1
60	72	1	46	1

SE=standard error

Figure 6.28: Transplant graft survival: AZA vs MMF 1993-2002

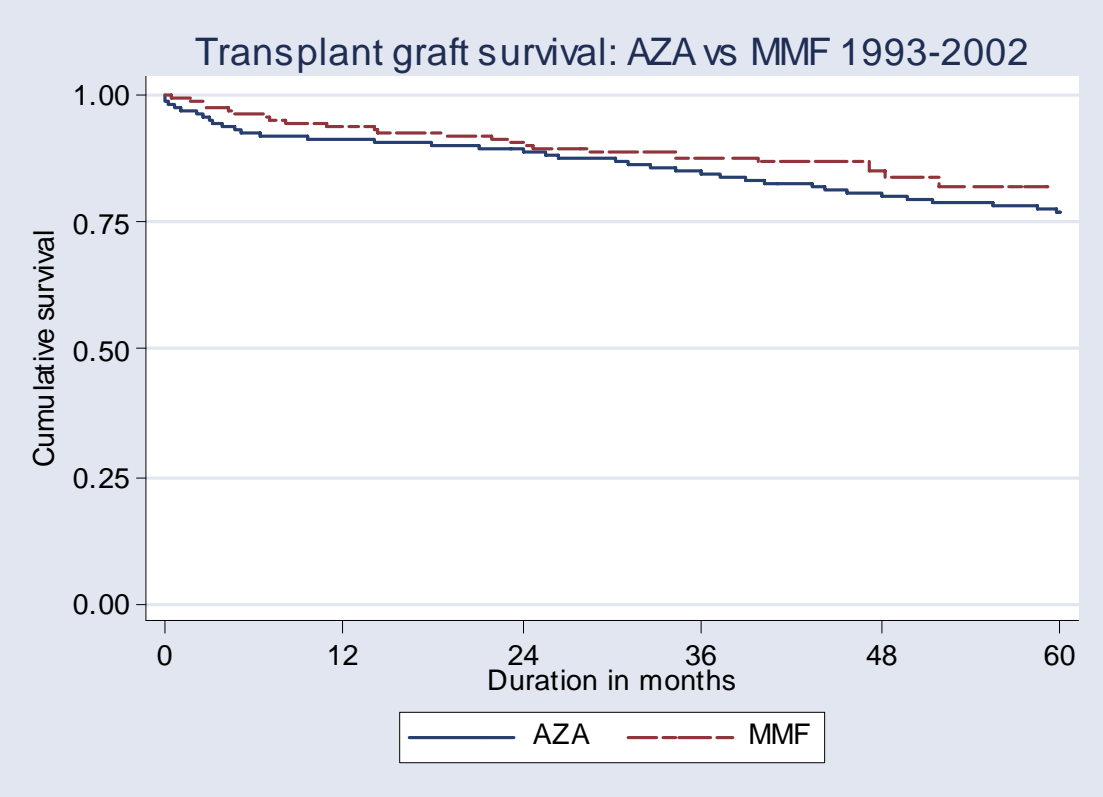


Figure 6.29: Adjusted transplant graft survival: AZA vs MMF 1993-2002

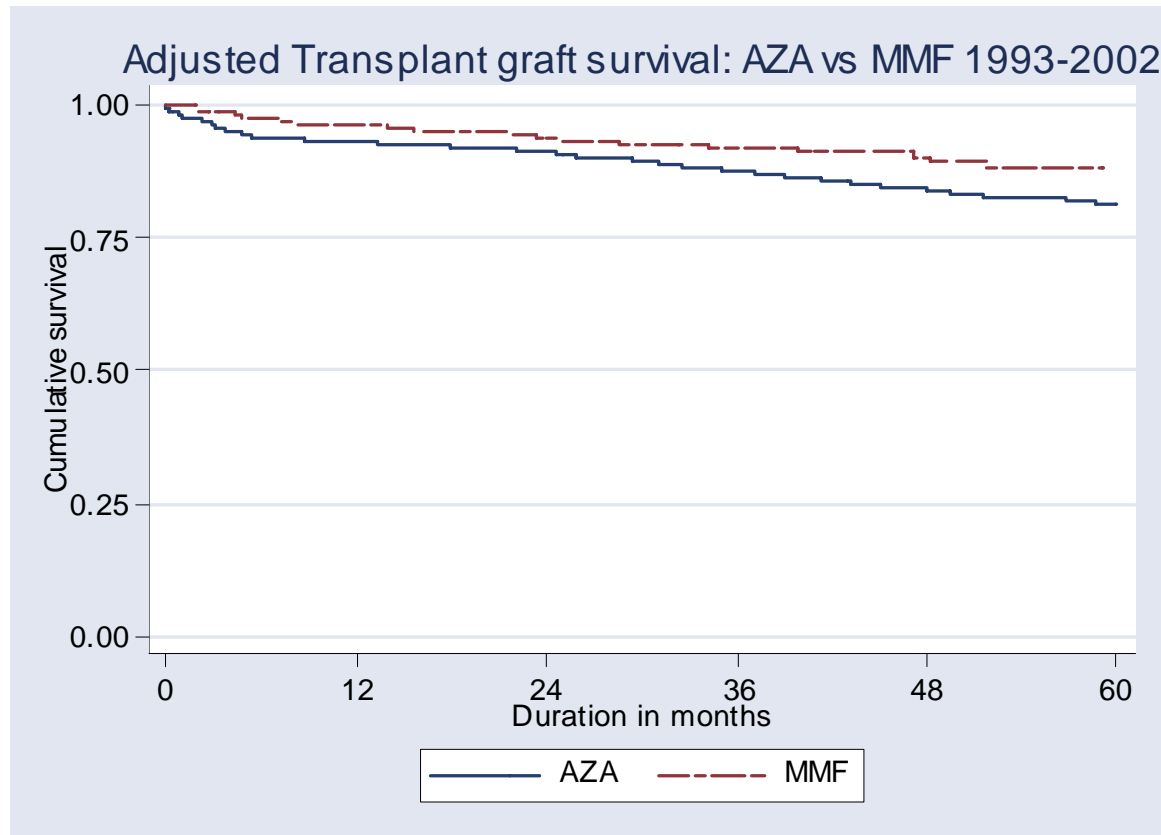


Figure 6.30: Transplant graft survival: CsA vs FK506 1993-2002

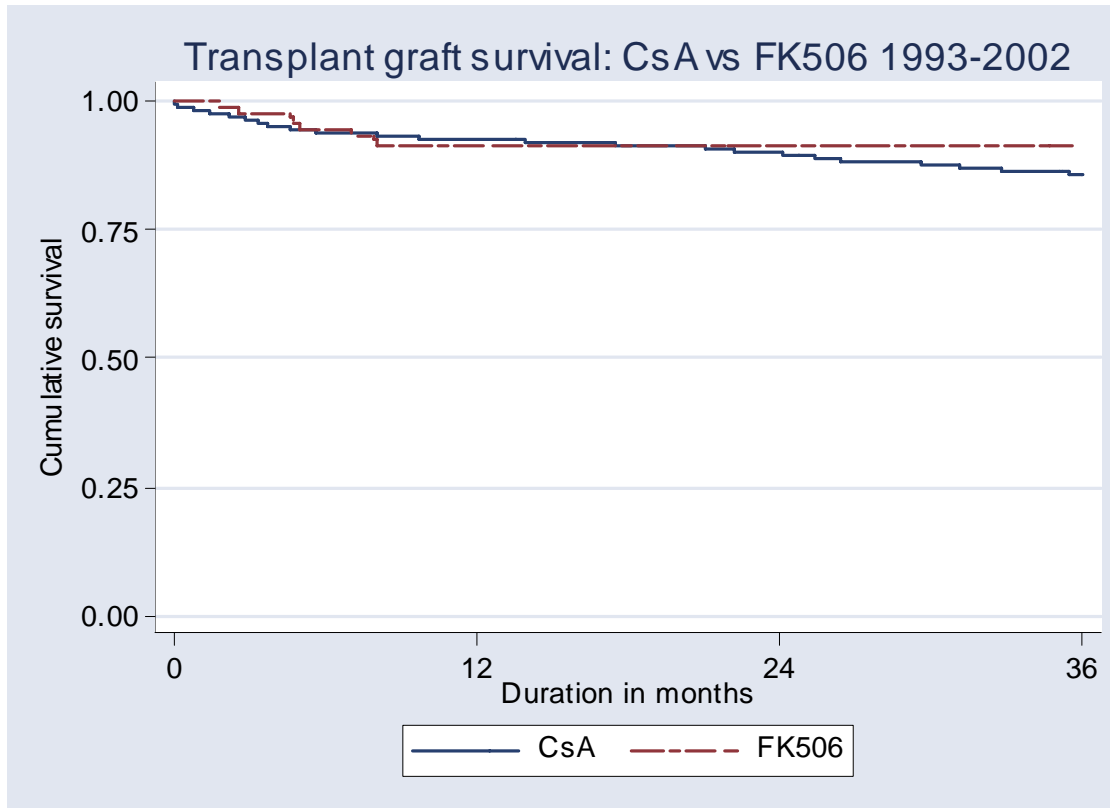


Figure 6.31: Adjusted transplant graft survival: CsA vs FK506 1993-2002

