

RENAL TRANSPLANTATION

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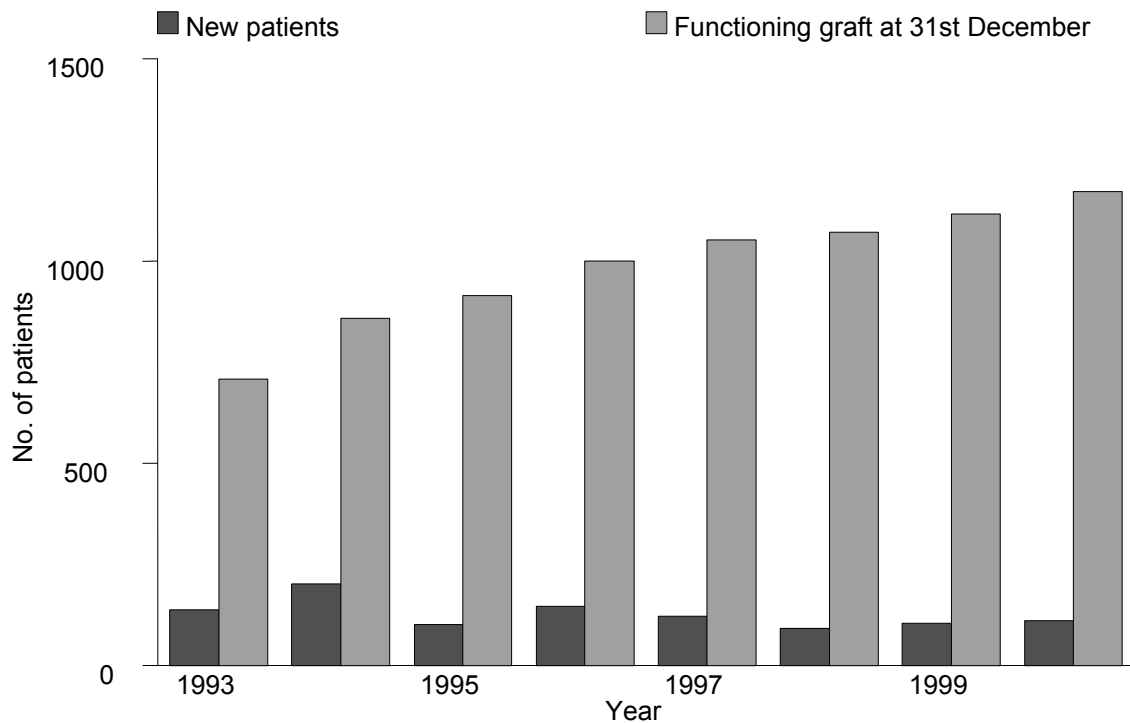
5. RENAL TRANSPLANTATION

5.1 STOCK AND FLOW

Table 5.01 Stock and Flow of Renal Transplant Patients 1993 - 2000

Year	1993	1994	1995	1996	1997	1998	1999	2000
New transplant patients	137	202	101	146	122	91	104	111
Died	20	28	16	31	29	24	24	26
Returned to dialysis	23	21	28	28	39	46	34	28
Lost to Follow Up	1	3	1	1	2	2	1	2
Functioning graft at 31st December	708	858	914	1000	1052	1071	1116	1171

Figure 5.01: Stock and Flow Renal Transplant Patients, 1993 - 2000



5.2 PLACE AND TYPE OF RENAL TRANSPLANT

Table 5.02: Place of Renal Transplantation 1993 - 2000

Year	1993		1994		1995		1996	
	No.	%	No.	%	No.	%	No.	%
HKL	36	26	33	16	36	36	33	23
UH	3	2	5	2	9	9	6	4
Other local	0	0	0	0	0	0	0	0
India	84	61	142	70	22	22	5	3
China	12	9	21	10	33	33	101	69
Other overseas	2	1	1	0	1	1	1	1
Total	137	100	202	100	101	100	146	100
Year	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
HKL	29	24	33	36	35	34	28	25
UH	6	5	6	7	9	9	6	5
Other local	0	0	0	0	1	1	1	1
India	7	6	6	7	5	5	8	7
China	78	64	44	48	54	52	62	56
Other overseas	2	2	2	2	0	0	0	0
Total	122	100	91	100	104	100	111	100

Table 5.03: Type of Renal Transplantation 1993 - 2000

Year	1993		1994		1995		1996	
	No.	%	No.	%	No.	%	No.	%
Commercial Cadaver	12	9	21	10	33	33	101	69
Commercial Live donor	83	61	141	70	19	19	4	3
Live donor Cadaver	39	28	38	19	44	44	39	27
Total	137	100	202	100	101	100	146	100
Year	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
Commercial Cadaver	78	64	44	48	49	47	58	52
Commercial Live donor	7	6	4	4	4	4	9	8
Live donor Cadaver	29	24	27	30	37	36	14	13
Total	122	100	91	100	104	100	111	100

5.3 DEATH AFTER TRANSPLANTATION AND GRAFT FAILURE

Table 5.04: Transplant Patients Death Rate and Graft Loss 1993 - 2000

Year	1993	1994	1995	1996	1997	1998	1999	2000
No. at risk	708	783	886	957	1026	1062	1094	1144
Transplant death	20	28	16	31	29	24	24	26
Transplant death rate %	3	4	2	3	3	2	2	2
Graft loss	23	21	28	28	39	46	34	28
Graft loss %	3	3	3	3	4	4	3	2
All losses	43	49	44	59	68	70	58	54
All losses rate %	6	6	5	6	7	7	5	5

Figure 5.04: Transplant Recipient Death Rate 1993 - 2000

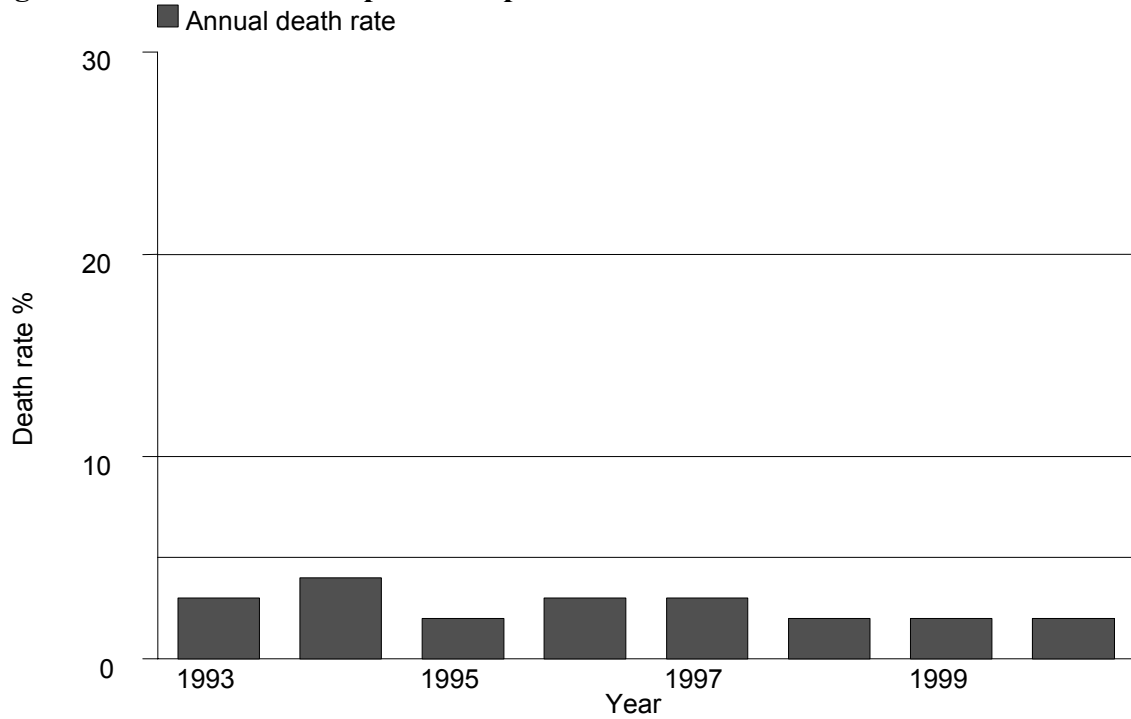


Table 5.05: Causes of Death in Transplant Recipients 1997 – 2000

Year	1997		1998		1999		2000	
	No	%	No	%	No	%	No	%
Cardiovascular	3	10	3	13	3	13	9	35
Died at home	2	7	4	17	3	13	0	0
Sepsis	14	48	9	38	7	29	9	35
GIT bleeding	0	0	2	8	1	4	1	4
Cancer	0	0	3	13	3	13	2	8
Liver disease	2	7	1	4	1	4	1	4
Others	4	14	0	0	3	13	4	15
Unknown	4	14	2	8	3	13	0	0
Total	29	100	24	100	24	100	26	100

Table 5.06: Causes of Graft Failure 1997 - 2000

Year	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
Rejection	20	51	24	52	21	62	19	68
Cyclosporine/ drug toxicity	0	0	0	0	0	0	0	0
Ureteric obstruction	0	0	0	0	0	0	0	0
Vascular causes(stenosis / thrombosis)	4	10	1	2	1	3	3	11
Renal disease, recurrent/de novo	1	3	1	2	0	0	0	0
Technical complication	0	0	0	0	0	0	2	7
Others	4	10	4	9	0	0	1	4
Unknown	10	26	16	35	12	35	3	11
Total	39	100	46	100	34	100	28	100

5.4 CENTRES OF FOLLOW-UP

Table 5.07: Distribution of Centres of Follow-up of Transplant Recipients, 2000

n	Centre	No	percent
0	No. with functioning graft at 31st December	1171	100
1	Alor Setar Hospital	6	1
2	Ampang Puteri Specialist Hospital	1	0
3	Assunta Hospital	2	0
4	Batu Pahat Hospital	11	1
5	Bintulu Hospital	3	0
6	C.S. Loo Kidney & Medical Specialist Centre	2	0
7	Damai Medical & Heart Clinic	1	0
8	Dutches of Kent Hospital	5	0
9	Healthcare Dialysis Centre, Petaling Jaya	16	1
10	Ipoh Hospital	45	4
11	Kluang Hospital	11	1
12	Kota Bharu Hospital	2	0
13	Kuala Lumpur Hospital	339	29
14	Kuala Terengganu Hospital	6	1
15	Kuching Hospital	45	4
16	Labuan Hospital	1	0
17	Mahkota Medical	15	1
18	Melaka Hospital	25	2
19	Miri Hospital	16	1
20	Muar Hospital	15	1
21	Pantai Mutiara Hospital, Penang	1	0
22	Pulau Pinang Hospital	159	14
23	Pusat Pakar Tawakal	11	1
24	Queen Elizabeth Hospital	42	4
25	Renal Dialysis Centre, Gleneagles Intan Medical Centre	1	0
26	Renal Healthcare, Kuala Lumpur	1	0
27	Segamat Hospital	9	1
28	Selangor Medical Centre	3	0
29	Selayang Hospital	11	1
30	Seremban Hospital	27	2
31	Sibu Hospital	26	2
32	Subang Jaya Medical Centre	13	1
33	Sultanah Aminah Hospital	137	12
34	Taiping Hospital	1	0
35	Tawau Hospital	6	1
36	Tengku Ampuan Afzan Hospital, Kuantan	23	2
37	Tengku Ampuan Rahimah Hospital, Klang	33	3
38	Timberland Medical Centre	22	2
39	Universiti Kebangsaan Malaysia Hospital	1	0
40	Universiti Sains Malaysia Hospital	3	0
41	University Hospital	74	6

5.5 TRANSPLANT RECIPIENTS' CHARACTERISTICS

Table 5.08: Percentage age distribution of transplant recipients 1997 – 2000

Year	1997	1998	1999	2000
New transplant patients	122	91	104	111
1-14 years	6	4	6	7
15-24 years	16	5	13	7
25-34 years	23	32	26	23
35-44 years	30	29	31	24
45-54 years	20	24	18	29
55-64 years	3	5	7	9
≥65 years	2	0	0	1
Functioning graft at 31st December	1052	1071	1116	1171
1-14 years	2	3	3	3
15-24 years	15	14	14	14
25-34 years	32	32	32	31
35-44 years	30	30	30	30
45-54 years	15	16	16	17
55-64 years	5	5	5	5
≥65 years	0	0	0	0

Table 5.09: Renal Transplant Recipients' Characteristics 1997 - 2000

Year	1997	1998	1999	2000
New transplant patients	122	91	104	111
Mean age± sd	35±13	37±11	36±13	38±14
% male	66	60	61	66
% Diabetic	11	9	12	14
% HBsAg+	5	4	4	4
% Anti-HCV+	5	16	10	6

Table 5.11: Transplant Allograft Survival related to Year of Transplant 1995 – 2000

Year	1995			1996			1997		
Interval (months)	% survival	SE	No	% survival	SE	No	% survival	SE	No
6	91	3	93	92	2	136	93	2	114
12	91	3	92	91	2	133	90	3	111
24	89	3	90	88	3	129	87	3	107
36	81	4	81	84	3	124	81	4	93
48	76	4	76	82	3	121			
60	75	4							

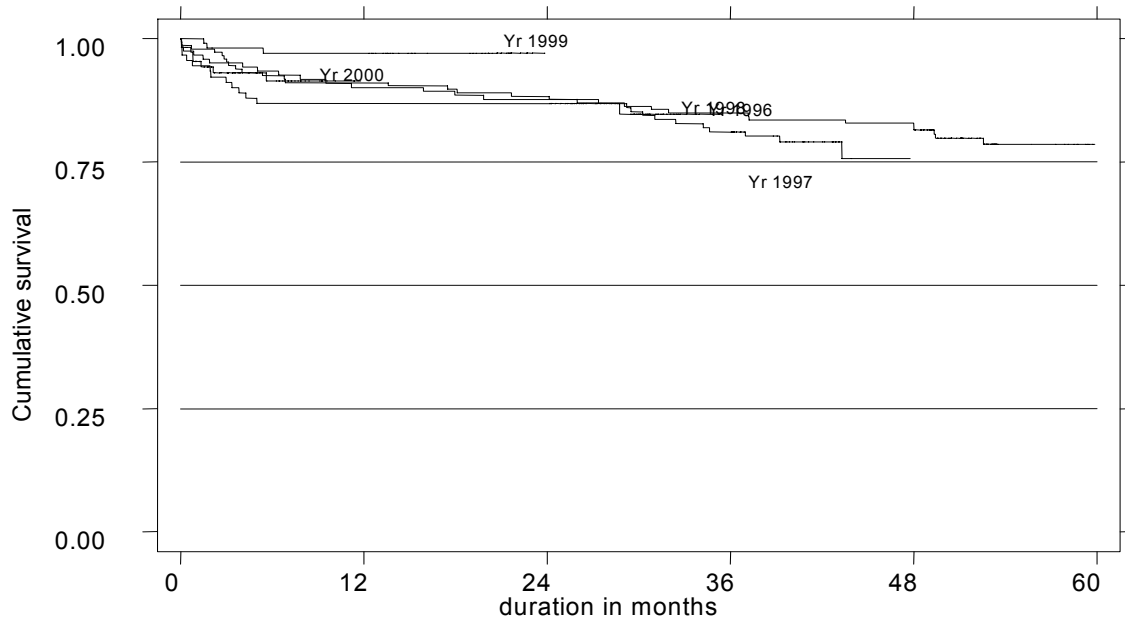
Year	1998			1999			2000		
Interval (months)	% survival	SE	No	% survival	SE	No	% survival	SE	No
6	87	4	78	97	2		91	3	
12	87	4	68	97	2				
24	87	4	49						

No. = number at risk

SE = standard error

Figure 5.11: Transplant Allograft Survival by Year of Transplant 1996-2000

Kaplan-Meier survival estimates, by Year



5.7 WORK RELATED REHABILITATION AND QUALITY OF LIFE IN TRANSPLANT RECIPIENTS

Table 5.12: Work Related Rehabilitation in Transplant Recipients 1997 - 2000

REHABILITATION STATUS	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
Full time work for pay	492	62	420	68	543	62	548	66
Part time work for pay	77	10	36	6	62	7	60	7
Able to work but unable to get a job	20	3	20	3	8	1	10	1
Able to work but not yet due to dialysis schedule	1	0	0	0	0	0	1	0
Able but disinclined to work	9	1	10	2	6	1	7	1
Home maker	128	16	94	15	174	20	138	17
Full time student	18	2	14	2	32	4	30	4
Age<15 years	5	1	3	0	3	0	3	0
Retired	14	2	10	2	32	4	31	4
Age>65 years	7	1	6	1	7	1	5	1
Unable to work due to poor health	20	3	9	1	11	1	2	0
Total	791	100	622	100	878	100	835	100

Table 5.13: Quality of Life, Transplant recipients 1997 – 2000

QOL Index Summated Score	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
0 (Worst QOL)	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0
4	2	0	1	0	0	0	2	0
5	2	0	0	0	1	0	0	0
6	10	1	5	1	4	0	2	0
7	11	1	9	2	8	1	1	0
8	18	2	11	2	5	1	12	1
9	24	3	31	5	9	1	23	3
10 (Best QOL)	728	92	532	90	852	97	780	95
Total	795	100	589	100	879	100	820	100