

SPECIAL SECTIONS

PAEDIATRIC SURVEY

ABORIGINAL PATIENT REPORT

CANCER REPORT

PAEDIATRIC SURVEY

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PAEDIATRIC SURVEY

BY DR. PAUL ROY

Between 1977 and 1988 there has been little change in the number of patients in the 10-19 year age group. In the 0-9 year age group nine patients commenced treatment in the 1977-1978 period, but in the 1982-1983 period the number had increased to 25 and there were again 25 in the 1987-1988 period. The majority of children with end-stage renal failure are probably now gaining access to treatment.

INTEGRATED TREATMENT SURVIVAL 1980-1988

Integrated treatment survival should be better in the 0-14 year age group than in any other. This is reflected in the 96% five year patient survival in New Zealand and 90% in Australia. Survival is almost identical with that of the 15-29 year age group. See Tables 49 and 50.

TABLE 49

INTEGRATED TREATMENT SURVIVAL - AUSTRALIA 1980-1988RELATED TO AGE

	1 YEAR	3 YEARS	5 YEARS	7 YEARS
<u>ALL PATIENTS</u> (n=5767)	90 $\pm$ 1 (4437)	73 $\pm$ 1 (2520)	61 $\pm$ 1 (1333)	53 $\pm$ 1 (546)
<u>AGE</u>				
0-14 YEARS (n= 201)	96 $\pm$ 1 (175)	93 $\pm$ 2 (124)	90 $\pm$ 3 (69)	85 $\pm$ 4 (26)
15-29 YEARS (n= 754)	97 $\pm$ 1 (641)	93 $\pm$ 1 (458)	89 $\pm$ 1 (293)	85 $\pm$ 2 (146)
30-44 YEARS (n=1251)	95 $\pm$ 1 (1028)	83 $\pm$ 1 (660)	76 $\pm$ 1 (380)	70 $\pm$ 2 (168)
45-59 YEARS (n=2078)	89 $\pm$ 1 (1624)	70 $\pm$ 1 (897)	56 $\pm$ 1 (459)	45 $\pm$ 2 (174)
60-85 YEARS (n=1483)	80 $\pm$ 1 (969)	53 $\pm$ 2 (386)	33 $\pm$ 2 (132)	22 $\pm$ 2 (32)

TABLE 50

INTEGRATED TREATMENT SURVIVAL - NEW ZEALAND 1980-1988RELATED TO AGE

	1 YEAR	3 YEARS	5 YEARS
<u>ALL PATIENTS</u> (n=1042)	89 $\pm$ 1 (792)	72 $\pm$ 2 (445)	62 $\pm$ 2 (259)
<u>AGE</u>			
0-14 YEARS (n= 35)	100 $\pm$ 0 (32)	96 $\pm$ 4 (18)	96 $\pm$ 4 (15)
15-29 YEARS (n= 209)	98 $\pm$ 1 (176)	93 $\pm$ 2 (124)	87 $\pm$ 3 (84)
30-44 YEARS (n= 254)	92 $\pm$ 2 (205)	80 $\pm$ 3 (133)	71 $\pm$ 4 (77)
45-59 YEARS (n= 410)	85 $\pm$ 2 (299)	61 $\pm$ 3 (136)	49 $\pm$ 3 (70)
60-85 YEARS (n= 134)	77 $\pm$ 4 (80)	52 $\pm$ 5 (34)	35 $\pm$ 6 (13)

% Survival $\pm$ S.E: numbers at risk in brackets.

PAEDIATRIC PATIENT AND GRAFT SURVIVAL 1985-1988

In children who have received cadaveric transplantation between 1985 and 1988 in Australia, the three year patient survival is 100% and the three year graft survival 69%. Graft survival for younger children, 0-9 year age group, is not as satisfactory as for the 10-14 year group $51 \pm 14\%$ vs $79 \pm 10\%$. See Table 51.

TABLE 51

PRIMARY CADAVER PAEDIATRIC AND GRAFT SURVIVAL - AUSTRALIA

RELATED TO AGE 1985-1988

PATIENT SURVIVAL

AGE GROUP	3 MONTHS	6 MONTHS	1 YEAR	2 YEARS	3 YEARS
<u>ALL PATIENTS</u> (n=44)	100 ± 0 (42)	100 ± 0 (41)	100 ± 0 (34)	100 ± 0 (24)	100 ± 0 (9)
0-9 YEARS (n=19)	100 ± 0 (17)	100 ± 0 (16)	100 ± 0 (12)	100 ± 0 (7)	100 ± 0 (5)
10-14 YEARS (n=25)	100 ± 0 (25)	100 ± 0 (25)	100 ± 0 (22)	100 ± 0 (17)	100 ± 0 (4)

GRAFT SURVIVAL

AGE GROUP	3 MONTHS	6 MONTHS	1 YEAR	2 YEARS	3 YEARS
<u>ALL PATIENTS</u> (n=44)	84 ± 6 (36)	84 ± 6 (35)	81 ± 6 (27)	74 ± 7 (19)	69 ± 8 (7)
0-9 YEARS (n=19)	78 ± 10 (14)	78 ± 10 (13)	71 ± 11 (8)	51 ± 15 (4)	51 ± 15 (3)
10-14 YEARS (n=25)	88 ± 7 (22)	88 ± 7 (22)	88 ± 7 (19)	88 ± 7 (15)	79 ± 10 (4)

% Survival $\pm$ S.E: numbers at risk in brackets.

INITIAL AND CURRENT TREATMENT

Initial treatment clearly reflects the different attitudes of paediatric nephrologists to CAPD and haemodialysis. See Table 52. This attitude is reflected also in current treatment shown in Table 53.

Comment

Presumably the advantage of a relatively simpler technique, less abrupt fluid and electrolyte changes with a relatively stable biochemical status and higher haemoglobin are perceived as outweighing the disadvantages of the risk of peritonitis and other CAPD related complications. Detailed outcome information should eventually reveal whether this perception is well founded.

TABLE 52

NEW PATIENTS - AUSTRALIA 1988

INITIAL TREATMENT	AGE		
	0-9 YEARS	10-19 YEARS	20-29 YEARS
HOSPITAL IPD	10 (83%)	9 (38%)	8 (12%)
HOSPITAL HD	2 (17%)	11 (46%)	50 (76%)
HOSPITAL CAPD	-	3	7
TRANSPLANT	-	1	1
TOTAL	12	24	66

TABLE 53

CURRENT TREATMENT - AUSTRALIA 1988

TYPE OF TREATMENT	AGE		
	0-9 YEARS	10-19 YEARS	20-29 YEARS
HOSPITAL IPD	1	-	2
HOSPITAL HD	2	19	57
SATELLITE HD	-	7	43
HOME IPD	1	6	-
HOME HD	-	5	59
HOSPITAL CAPD	1	1	-
HOME CAPD	8 (61%)	30 (44%)	36 (18%)
TOTAL	13	68	197

STATUS OF PAEDIATRIC SURVEY

Paediatric Survey forms were returned in relation to 189 patients who were aged less than 15 years at entry to initial treatment and who are still aged less than 20 years. Twenty three (12%) were aged less than five years at entry.

Of the 189 children, 66 (35%) were from New South Wales, 47 (25%) from Victoria, 14 (7%) from Queensland, 16 (8.5%) each from South Australia and Western Australia, 5 (3%) from Tasmania and 25 (13%) from New Zealand. Paediatric forms were returned from 24 centres.

At the end of 1988, 64% of Australian patients under 20 years had a functioning transplant compared to 52% of all Australian patients. Plans for early transplantation from a living related donor may also have an influence.

Data for 1988 was complete for height and weight in 76%, pubertal assessment in 55% and bone age in 31% of returned forms.

GROWTH OF CHILDREN AGED LESS THAN FIVE YEARS AT ENTRY

In the 1988 report the degree of growth retardation of this group was shown. There were 25 children and standard deviation score (SDS) for height was -2.73 ± 1.45 .

Table 54 shows the results for the current group. Data was available for 1988 for 18 and for 1987 for 19. For comparison the current status of the 32 children in the 14-16 year age group are also shown. The differences seen do not reach statistical significance. It is to be hoped that the trend, whatever its cause, is continued.

TABLE 54

GROWTH STANDARD DEVIATION SCORES (SDS) FOR HEIGHT

INTEGRATED TREATMENT

CURRENT AGE 0-20 YEARS			CURRENT AGE 14-16 YEARS
AGE AT ENTRY - LESS THAN 5 YEARS			ANY AGE AT ENTRY
	AT 31.10.87	AT 31.10.88	AT 31.10.88
SDS	-2.5	-1.6	-1.73
SD	1.4	1.8	1.29
NUMBER	19	18	32

REHABILITATION

Rehabilitation status is better than that reported in 1988. See Tables 55 and 56.

Of the 168 school age children, 129 (76%) attend school full time in a class appropriate for age in comparison to 58% in the last report.

In Australia 64% of children receiving dialysis and 75% of children with functioning transplants attend school full time in an age appropriate class.

In New Zealand five of six school age children on dialysis and thirteen of fourteen children with functioning transplants attend school full time in an age appropriate class.

A total of nine children attend a school for physically and/or mentally handicapped children.

PROGRESS

Computerisation of the Paediatric Survey data is almost complete. This should permit more detailed analyses and ultimately analyses using the entire data base for this group of patients.

TABLE 55

REHABILITATION GRADING OF PAEDIATRIC PATIENTS 1988AUSTRALIA

TYPE OF TREATMENT	91	92	93	94	95	96	97	TOTAL
<u>DIALYSIS</u>								
HOSPITAL PD	-	-	-	1	-	-	-	1
HOME PD	4	1	1	-	-	-	1	7
HOSPITAL CAPD	1	-	-	-	1	-	-	2
HOME CAPD	23	1	1	-	-	2	3	30
HOSPITAL HD	6	3	3	1	1	-	-	14
SATELLITE HD	1	-	-	-	-	-	-	1
TOTAL	35 (64%)	5 (9%)	5 (9%)	2 (4%)	2 (4%)	2 (4%)	4 (7%)	55
FUNCTIONING TRANSPLANTS	76 (75%)	-	16 (16%)	1 (1%)	4 (3%)	-	5 (5%)	102*
TOTAL	111 (71%)	5 (3%)	21 (13%)	3 (2%)	6 (4%)	2 (1%)	9 (6%)	157

* Total as for caring hospital.

TABLE 56

NEW ZEALAND

TYPE OF TREATMENT	91	92	93	94	95	96	97	TOTAL
<u>DIALYSIS</u>								
HOSPITAL CAPD	-	-	-	-	-	-	-	-
HOME CAPD	4	-	-	-	-	-	1	5
HOSPITAL HD	-	-	-	-	-	-	-	-
HOME HD	1	-	1	-	-	-	-	2
TOTAL	5 (72%)	-	1 (14%)	-	-	-	1 (14%)	7
FUNCTIONING TRANSPLANTS	13 (93%)	-	1 (7%)	-	-	-	-	14*
TOTAL	18 (86%)	-	2 (10%)	-	-	-	1 (4%)	21

* Total as for caring hospital.

91 = Attends school full time in class appropriate for age.

92 = Attends school in class appropriate for age but attendance limited by dialysis schedule.

93 = Attends school in class lower than appropriate for age.

94 = Attends school for physically handicapped children.

95 = Attends school for developmentally handicapped children.

96 = Medically unfit for school.

97 = Preschool child.

ABORIGINAL PATIENT REPORT

ABORIGINAL PATIENT REPORTCONTENTSPage

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DIALYSIS AND TRANSPLANTATION IN THE ABORIGINAL POPULATION
OF SOUTH AUSTRALIA AND THE NORTHERN TERRITORY

BY DR. D.J. PUGSLEY

The Registry Executive have invited Dr. Pugsley to provide a Report of the outcome of treatment of Aboriginal patients from South Australia and the Northern Territory.

He has had a major influence on the development of this service and provides support through visits to Alice Springs, Drawin and the settlements in between. Although limited to this group of Aboriginals, the observations are likely to be applicable in other non-urban areas of Australia. Next year a broader Report should encompass all Aboriginal patients.

PATIENTS RECEIVING INITIAL TREATMENT 1971-1988

The first occasion on which an Aboriginal patient with end-stage renal failure (ESRF) was accepted onto dialysis in South Australia was in 1971. Up until 31st. October, 1988 a further 69 patients have been similarly treated, the majority since 1985. See Figure 41.

The age and sex distribution of this group is shown in Figure 42. By comparison with non Aboriginal Australians, the Aboriginal group enters ESRF at a considerably younger age. There is a small excess of women over men. (39:31).

The average number of Aborigines entering the South Australian/Northern Territory (SA/NT) programme between 1985-1987 was 13.3 per annum. This represents approximately 1:3000 of the total Aboriginal population of the area. Thus using this data, the prevalence of ESRF is about seven times that for all Australians.

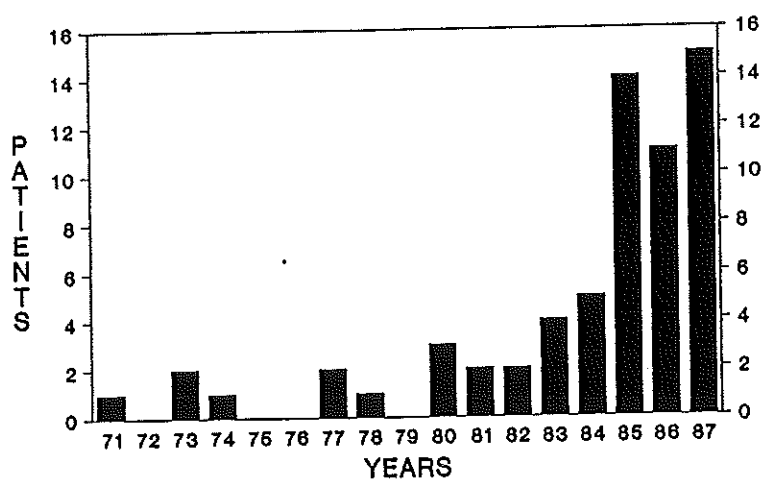
Of the 70 patients, 30 presented for the first time in ESRF. Thirty nine (56%) had either biopsy proven or presumed glomerulonephritis. Eleven (16%) had proven diabetic nephropathy and this group formed nearly 25% (11/47) of the patients accepted onto the programme since 1983.

Forty (57%) of the group were living in non-urban (i.e. rural or traditional Aboriginal camp) settings. See Figure 43.

Two patients have successfully undertaken CAPD and a further six have experienced periods of time on home or locally based haemodialysis regimes. All of the other patients have required either centre or satellite based haemodialysis in Adelaide or the Northern Territory (Alice Springs and Darwin).

Figure 41.

SA/NT RENAL FAILURE PROGRAMME
NEW ABORIGINAL PATIENTS 1.1.71-31.10.87



1988 (n=7) (to 31.10.88)

Figure 42.

SA/NT ABORIGINAL PATIENTS

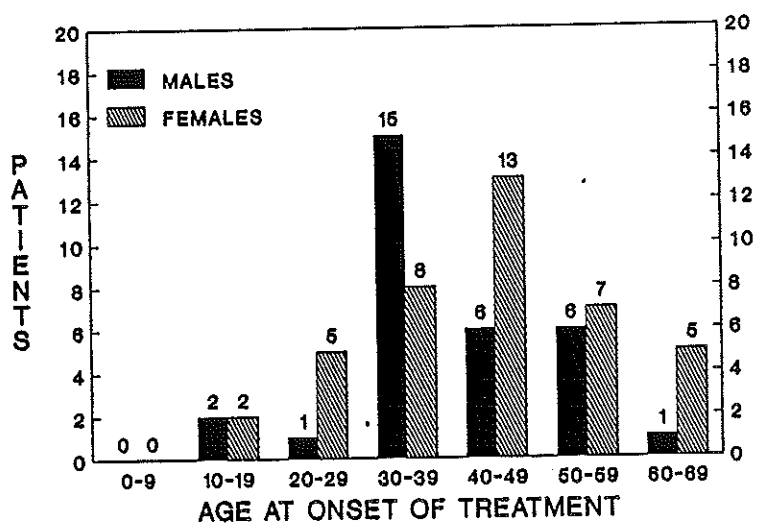
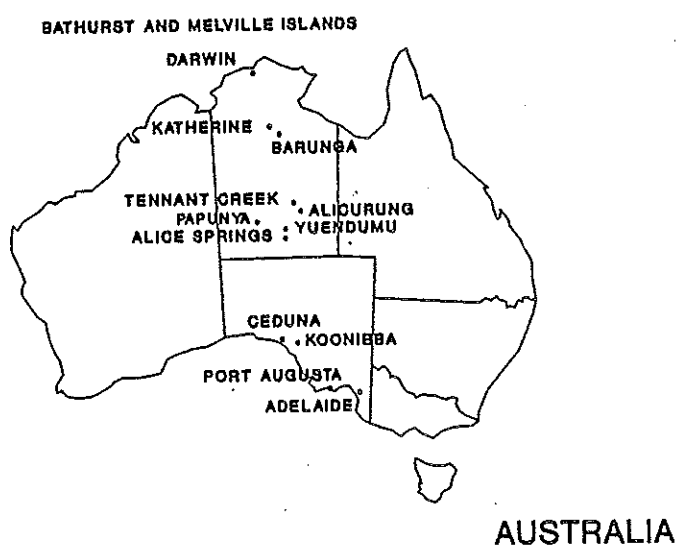


Figure 43.



INTEGRATED TREATMENT SURVIVAL 1983-1988

The integrated (dialysis and/or transplant) survival of Aboriginal patients entering the SA/NT programme through 1983-1988 is shown in Figure 44. This time period was chosen because it permits the inclusion of the majority of Aboriginal patients (see Figure 44) and thus allows a comparison with a time controlled non Aboriginal group. The comparison group ideally would be controlled for (at least) age and sex and possibly also for transplant experience. At present we have increased the validity of the comparison only by restricting the non Aboriginal group to those patients whose ages fall within the range presented by the Aboriginal patients. It is clear that by this yardstick, the Aboriginal group has a survival which is significantly worse.

GRAFT SURVIVAL 1983-1988

Graft survival for Aborigines undergoing first transplantation between 1983-1988 (30 out of the total of 37 who have undergone transplantation since 1972) is shown in Figure 45. The comparison with the non Aboriginal group has limited validity because the Aboriginal group contains at least 12 (40%) patients who received kidneys from living donors.

A comparison of graft survival between Aboriginal and non Aboriginal patients who obtained kidneys from living related donors between 1983-1988 is shown in Figure 46. Generally speaking, sub-group analysis here is going to yield numbers which are too small for valid comparisons.

Up until 31st. October, 1988 no Aboriginal patient had received a second graft in South Australia or the Northern Territory.

FACTORS AFFECTING SUCCESS OF TRANSPLANTATION

Following transplantation, which is carried out only in Adelaide, Aboriginal patients stay within the metropolitan area for at least the first three months and some patients have decided thereafter to reside permanently in urban areas.

Problems with compliance with anti-rejection therapy; difficulties with the achievement of regular nephrological follow up; and the enhanced risk of intercurrent infection in the face of immunosuppression may well help to account for the fall off in graft survival which is observed after the first six months.

Figure 44.

INTEGRATED PATIENT SURVIVAL - 1983-88
SA AND NT - ABORIGINAL/NON ABORIGINAL
Age range 11 - 61 years

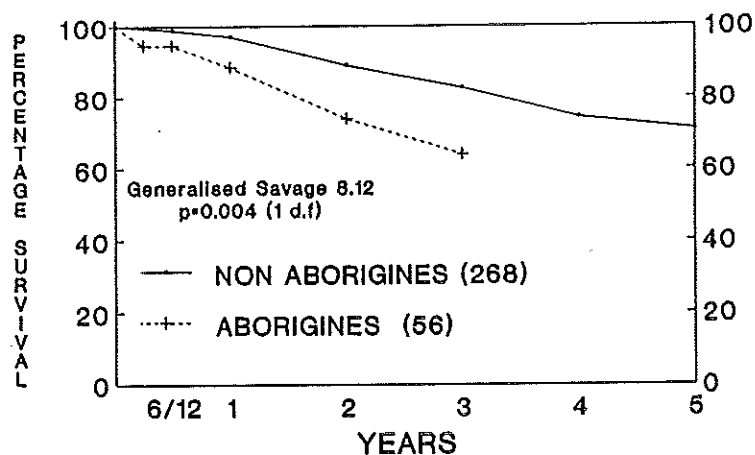


Figure 45.

GRAFT SURVIVAL 1983-88
SA AND NT - ABORIGINAL/NON ABORIGINAL
All first transplants

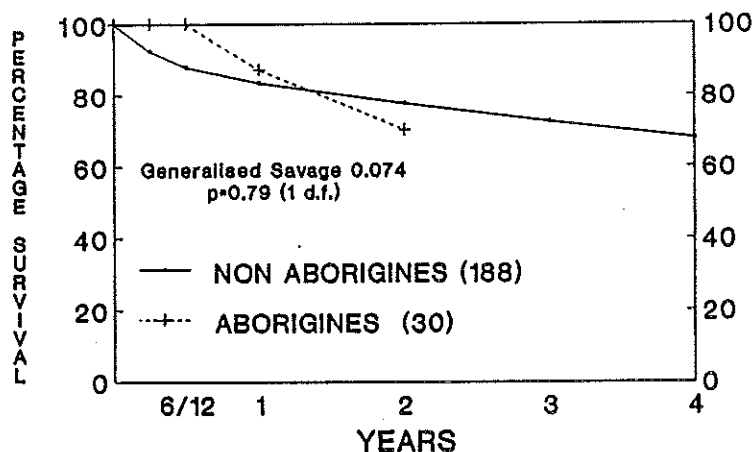
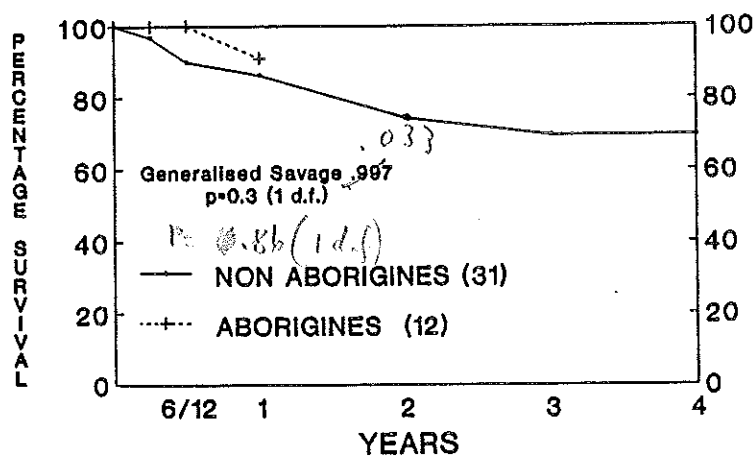


Figure 46.

GRAFT SURVIVAL 1983-88
SA AND NT - ABORIGINAL/NON ABORIGINAL
All living related donors



Comment

Because the Aboriginal tissue type differs markedly from that of Australians of European and Asian descent, allocation of cadaveric kidneys for transplantation on the basis of "best available match" tends to mean that Aborigines have a reduced chance of receiving grafts from this source. This problem is compounded by the fact that kidneys are not generally available for donation following sudden deaths in Aborigines. A successful transplant programme for Aboriginal patients therefore has to rely to a greater extent on the donation of kidneys from living relatives.

Renal transplantation has the estimable advantage of permitting (in theory at least) recipients with functionally stable grafts to return to their home areas and ways of life. As such, transplantation has been a high priority for Aboriginal patients who have not, for other reasons been excluded from consideration for such treatment.

What cannot be shown by the figures is what might be termed the "social price". Many of the Aboriginal patients have had to alter their lifestyle in a radical fashion in order to conform with the stringent requirements of dialysis and transplantation. A commitment to an urban lifestyle by people not accustomed to it, has been challenged by the stresses of the altered geographic economic and cultural climate. This has placed considerable pressure on liaison staff and social workers.

CANCER REPORT

CANCER REPORT
AUSTRALIA AND NEW ZEALAND 1965-1988

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CANCER ANALYSIS IN DIALYSIS AND TRANSPLANT PATIENTS

BY PROF. A.G.R. SHEIL AND MS. N. AMISS

The incidence of cancer which has occurred in patients prior to dialysis, during the period on dialysis and following transplantation has been determined in all patients reported to the Registry between 1965 and 31st. October, 1988. Whereas the pattern of cancer development for patients treated with Azathioprine and Corticosteroids is well recognised, the influence of Cyclosporin A is now under analysis and is presented at the end of this Report.

SKIN CANCER

The occurrence of skin cancer in the groups of patients prior to dialysis and following transplantation are shown in Table 57. The proportions are similar to those in previous Reports.

Prior to dialysis the types and incidence of cancer are similar to those in the general population; basal cell carcinomas occur approximately twice as frequently as squamous cell carcinomas.

In patients on dialysis the incidence of skin cancer increases to 3%. Squamous cell carcinoma now occurs as frequently as does basal cell carcinoma.

Following transplantation there is a further increase in the incidence of skin cancers for both living related donor recipients and for cadaver donor recipients. The increase is most marked for cadaver donor recipients (17%) and the lesser increase in living related donor recipients may simply be due to the lower average age of these recipients at the time of transplantaiton though factors such as increased compatibility of grafts and decreased need for high dosage immunosuppression must be considered. In transplant recipients the incidence of squamous cell carcinoma is now twice that of basal cell carcinoma and there are large increases in the numbers of patients with keratoacanthoma, Bowen's disease, melanoma and other skin lesions.

SKIN CANCER (Continued)

The clinical features of skin cancer following cadaveric donor renal transplantation are shown in Table 58. The mean time for diagnosis of all lesions is approximately six years. However all can occur within the early months following transplantation and all continue to be diagnosed for a first time in patients for as long as patients are surviving following transplantation.

TABLE 57

SKIN CANCER IN PATIENTS BEFORE THE ONSET OF RENAL FAILURE,
DURING DIALYSIS AND AFTER RENAL TRANSPLANTATION 1965-1988

HISTOLOGICAL TYPE	PRIOR TO DIALYSIS	ON DIALYSIS	WITHIN 3 MONTHS POST CADAVER TRANSPLANT	BEYOND 3 MONTHS POST TRANSPLANT	
				LIVING DONOR	CADAVER DONOR
KERATOACANTHOMA	11	61	3	3	240
BOWEN'S DISEASE	6	31	1	3	212
SQUAMOUS CELL CA	34 (21%)	135 (32%)	8	16	666 (40%)
BASAL CELL CARCINOMA	70 (44%)	158 (38%)	17	9	458 (27%)
MELANOMA	19	17	0	2	29
OTHER	20	18	0	2	62
TOTAL CANCERS	160	420	29	35	1667
TOTAL PATIENTS WITH CANCER	134 (1%)	306 (3%)	24 (0.4%)	25 (5%)	925 (17%)
PATIENTS AT RISK	11926	11926	6075	478	5475

SKIN CANCER (Continued)

Multiple lesions are common and occur in more than half of those with skin lesions.

Of those with squamous cell carcinoma 7% have developed metastases and 5% have died of this cancer. One patient with keratoacanthoma has also developed a metastasis. The mean time of diagnosis of metastases following squamous cell carcinoma diagnosis was 0-131 (mean 30) months and the time from diagnosis of skin cancer until death varied from 4 to 138 (mean 47) months. The time from diagnosis of metastasis until death was 0-50 (mean 12) months.

Of 29 patients with melanoma seven (24%) developed metastases and six (21%) died. For melanoma the time between diagnosis and diagnosis of metastasis was 3 to 82 (mean 33) months. The time from diagnosis of melanoma until death was 7 to 82 (mean 32 months) and the time from metastasis until death was 0-10 (mean 4) months.

TABLE 58

SKIN CANCER FOLLOWING CADAVERIC DONOR RENAL TRANSPLANTATIONHISTOLOGICAL TYPE, TIME OF DIAGNOSIS, SINGLE, MULTIPLE,METASTATIC AND FATAL LESIONS 1965-1988

TYPE OF CANCER	NUMBER OF PATIENTS	TIME OF DIAGNOSIS (MONTHS)		SINGLE LESIONS	MULTIPLE LESIONS	METASTATIC LESIONS	FATAL CANCER
		RANGE	MEAN				
KERATOACANTHOMA	240	0-236	91	130	110 (46%)	1	0
BOWEN'S DISEASE	212	1-242	89	116	96 (45%)	0	0
SQUAMOUS CELL CA	666	0-226	69	213	453 (68%)	49 (7%)	33 (5%)
BASAL CELL CA	458	0-237	67	229	229 (50%)	0	0
MELANOMA	29	5-184	68	26	3 (10%)	7 (24%)	6 (21%)
OTHER	28	5-197	121	23	5	3	3
UNKNOWN	34	1-206	90	16	18	0	0
TOTAL	CANCERS	1667	0-242	74	753 (45%)	914 (55%)	60 (4%)
	PATIENTS WITH CANCER	925 (17%)					

CANCER OTHER THAN SKIN

The sites of development of all cancers other than skin cancers for the groups of patients before and while on dialysis and following transplantation are shown in Table 59. With the gradual increase in the average age of those accepted onto dialysis (approximately 50% are now older than 50 years when accepted) there has been a corresponding increase in the numbers of cancers diagnosed prior to dialysis until it is now 3%. As might be expected, approximately two thirds of patients have cancer related to the genitourinary system, most commonly the kidney and bladder. Similarly because of its association with renal failure the incidence of multiple myeloma (11% of patients with cancer) is high. Other common tumours prior to dialysis involved the alimentary tract (15% of patients with cancer) and breast (20% of female patients with cancer).

In the short period on dialysis cancer was diagnosed in 2% of patients. Again, the genitourinary system contributed most (46% of patients with cancer) and multiple myeloma was frequent (10% of patients with cancer) as were cancers of the alimentary tract (16% of those with cancer) especially colon and rectum. There were also a startling increase in the number of patients diagnosed to have lung cancer during this interval (14% of those with cancer).

Following transplantation 2% of those who received grafts from living donors developed cancers other than skin and 6% of those who received grafts from cadaver donors. The clinical features of the cancers following cadaver donor renal transplantation are shown in Table 60. A total of 328 cancers were diagnosed in patients aged 23 to 72 (mean 50 years). The preponderance of female patients (55%) is caused by cancers of the cervix, uterus, vulva and vagina and breast. Apart from the sex-determined cancers, cancers otherwise were of approximately equal frequency, though respiratory cancer was much more frequent in men (73% of respiratory cancers occurred in males).

Cancer was diagnosed from 3 to 249 (mean 79) months following transplantation. Mean time until diagnosis for the digestive organs was 100 months, for the respiratory organs 76 months, for the breast 95 months, for the genitourinary system 79 months, endocrine glands 39 months, microglioma 29 months and the lymphatic and haemopoietic systems 63 months.

In general, the non-skin cancers were highly malignant. Metastases developed in 42% of patients with cancer and death from cancer occurred in 44%. Death from other causes occurred in 17% of patients leaving only 33% of patients with cancers alive at present. Metastases were diagnosed within a short time of initial diagnosis (mean 2.8 months) and patients also died within a short time of diagnosis of cancer (mean 6.4 months). The time from diagnosis of metastasis to death was a mean of only 3.6 months.

TABLE 59

SITES OF CANCER OTHER THAN SKIN RELATED TO TREATMENT PERIODAT TIME OF DIAGNOSIS 1965-1988

SITE OF CANCER	PRIOR TO DIALYSIS	ON DIALYSIS	POST TRANSPLANT	
			LIVING DONOR	CADAVER DONOR
<u>ALIMENTARY TRACT</u>	<u>49</u>	<u>45</u>	<u>2</u>	<u>63</u>
Buccal cavity	7	4	0	7
Pharynx	3	1	0	2
Oesophagus	0	2	0	6
Stomach	5	6	1	4
Small intestine	0	0	0	1
Colon	20	18	0	23
Rectum and anal canal	10	6	0	10
Liver	1	3	1	5
Gall bladder and extra hepatic bile ducts	0	0	0	1
Pancreas	3	5	0	4
<u>RESPIRATORY</u>	<u>4</u>	<u>39</u>	<u>1</u>	<u>33</u>
Larynx	0	5	0	2
Trachea, bronchus and lung	4	33	1	27
Pleura	0	1	0	4
<u>BREAST</u>	<u>30</u>	<u>17</u>	<u>0</u>	<u>17</u>
Breast - Female	30	17	0	16
Breast - Male	0	0	0	1
<u>GENITOURINARY</u>	<u>218</u>	<u>128</u>	<u>4</u>	<u>104</u>
Cervix - Insitu	11	8	1	21
Cervix - Invasive	9	1	1	11
Uterus (Body)	8	3	1	5
Ovary	8	2	0	0
Vulva and vagina	1	2	0	13
Prostate	22	6	0	2
Testis	9	1	1	3
Penis	1	0	0	0
Bladder	40	37	0	22
Kidney	98	59	0	20
Ureter	11	9	0	7
<u>CENTRAL NERVOUS SYSTEM</u>	<u>1</u>	<u>8</u>	<u>0</u>	<u>18</u>
Lymphoma	1	0	0	16
Other CNS	0	8	0	2
<u>ENDOCRINE GLANDS</u>	<u>4</u>	<u>7</u>	<u>0</u>	<u>7</u>
Thyroid	2	5	0	7
Parathyroid	2	2	0	0
Other endocrine	0	0	0	0
<u>LYMPHATIC AND HAEMOPOIETIC</u>	<u>52</u>	<u>40</u>	<u>3</u>	<u>61</u>
Diffuse non-Hodgkin's	7	6	2	29
Hodgkin's disease	4	1	0	0
Multiple myeloma	35	29	1	3
Leukaemia	6	3	0	19
Kaposi's sarcoma	0	1	0	10
<u>MISCELLANEOUS</u>	<u>10</u>	<u>17</u>	<u>0</u>	<u>25</u>
TOTAL CANCERS	368	301	10	328
TOTAL PATIENTS WITH CANCER	331 (3%)	279 (2%)	10 (2%)	306 (6%)
PATIENTS AT RISK	11926	11926	478	5475

TABLE 60

THE CLINICAL FEATURES OF ALL CANCERS OTHER THAN SKIN DIAGNOSED FOLLOWING
CADAVER DONOR RENAL TRANSPLANTATION 1965-1988

SITE OF CANCER	NUMBER OF CANCERS	AGE OF PATIENTS (YEARS)		SEX		TIME OF DIAGNOSIS AFTER TRANSPLANT (MONTHS)		OCCUR. OF METAST	DEATH		PTS. ALIVE
		RANGE	MEAN	M	F	RANGE	MEAN		OF THIS CANCER	OF OTHER CANCER	
<u>ALIMENTARY TRACT</u>	<u>63</u>	23-71	54	33	30	5-246	100	<u>33</u>	<u>30</u>	<u>21</u>	<u>12</u>
Stomach	4	48-59	55	2	2	11-134	55	3	4	0	0
Colon	23	39-71	57	12	11	17-212	97	10	9	11	3
Rectum	10	40-68	54	3	7	40-193	120	5	5	3	2
Other	26	23-65	50	16	10	5-246	102	15	12	7	7
<u>RESPIRATORY</u>	<u>33</u>	31-67	55	24	9	3-218	76	<u>18</u>	<u>20</u>	<u>2</u>	<u>11</u>
Trachea and lung	27	31-67	54	19	8	3-218	70	17	16	2	9
Other	6	53-66	58	5	1	46-214	102	1	4	0	2
<u>BREAST</u>	<u>17</u>	31-62	49	1	16	16-189	95	<u>10</u>	<u>8</u>	<u>2</u>	<u>7</u>
<u>GENITOURINARY</u>	<u>104</u>	23-67	48	23	81	4-249	79	<u>26</u>	<u>21</u>	<u>30</u>	<u>53</u>
Cervix - Insitu	21	23-54	38	0	21	8-212	78	0	0	6	15
Cervix - Other	11	33-55	44	0	11	30-249	107	5	5	2	4
Uterus	5	37-61	48	0	5	15-188	117	1	0	0	5
Vulva and vagina	13	25-60	44	0	13	21-235	99	2	0	3	10
Prostate	2	54-67	61	2	0	44-107	76	0	0	2	0
Bladder	22	30-63	53	7	15	4-192	69	6	6	5	11
Kidney and ureter	27	42-64	55	11	16	4-183	58	10	10	11	6
Other	3	23-56	36	3	0	85-123	102	2	0	1	2
<u>CENTRAL NERVOUS SYSTEM</u>											
Lymphoma	<u>16</u>	27-72	48	9	7	4-106	29	0	<u>5</u>	<u>8</u>	<u>3</u>
<u>LYMPHATIC AND HAEMOPOIETIC</u>	<u>61</u>	27-72	48	41	36	3-223	63	<u>25</u>	<u>37</u>	<u>11</u>	<u>16</u>
Diffuse non-Hodgkin's	29	29-66	45	17	12	3-223	71	14	16	7	6
Hodgkin's disease	0	0-0	0	0	0	0-0	0	0	0	0	0
Leukaemia	19	31-67	51	9	10	11-180	86	5	16	3	0
Multiple myeloma	3	44-65	53	2	1	10-163	86	2	1	1	1
Kaposi's sarcoma	10	28-56	47	4	6	4-150	43	4	4	0	6
<u>MISCELLANEOUS</u>	<u>14</u>	33-65	51	12	2	6-176	77	<u>7</u>	<u>2</u>	<u>1</u>	<u>4</u>
<u>UNKNOWN</u>	<u>13</u>	24-69	51	9	4	5-189	80	<u>12</u>	<u>12</u>	<u>1</u>	<u>0</u>
TOTAL	328	23-72	50	146	182	3-249	79	137 (42%)	143 (44%)	78 (24%)	107 (33%)

RISK OF CANCER IN PATIENTS PRIOR TO DIALYSIS, ON DIALYSIS AND FOLLOWING RENAL TRANSPLANTATION

The risk of cancer development related to the treatment period is shown in Table 61. The apparently diminished risk of cancer in patients prior to dialysis, (risk ratio 0.6), probably reflects only the fact that this is a select group of patients who have already survived sufficiently long to present in renal failure. In the calculation of risk ratio they are compared with the general population which includes all patients who have already died of malignancy.

For dialysis dependent non-transplanted patients there is an increased risk of cancer of 2.2 times for males and 3.5 times for females. Following transplantation the increased risk increases for males to 2.5 times following living related donor renal transplantation and 3 times following cadaver donor renal transplantation, the respective figures for females being 4.4 and 3.9 times.

The increased risks for specific cancers following cadaveric donor renal transplantation are shown in Table 62. The most dramatically increased risks are for lymphoma involving the central nervous system and Kaposi's sarcoma (both greater than 1000 times), malignancies involving the ureter (276 times), vulva and vagina (32 times), liver (9 times), diffuse non Hodgkins lymphoma (8 times), leukaemia (7 times) and oesophagus (7 times). However, it should be noted that virtually all known cancers are occurring with some increased frequency, however slight. There is also an unexplained incidence of thyroid carcinoma which has been diagnosed in seven patients (322 times more frequently than expected).

The percentage probability of cancer following cadaveric donor transplantation is shown in Figure 48. The percentage probability of patients developing cancer if they survive 19 years following transplantation is 20% for cancers other than skin, 53% for skin cancer and 62% for cancer of any sort.

TABLE 61

RISK OF CANCER OTHER THAN SKIN - RELATED TO TREATMENT PERIOD

TYPE OF DIAGNOSIS		MALES				FEMALES				EITHER SEX			
		PTS AT RISK	OBS* CA	EXP** CA	RISK*** RATIO	PTS AT RISK	OBS* CA	EXP** CA	RISK*** RATIO	PTS AT RISK	OBS* CA	EXP** CA	RISK*** RATIO
PRIOR TO DIALYSIS		6574	176	293	0.6	5352	192	324	0.6	11926	368	617	0.6
ON DIALYSIS		6574	147	66	2.2	5352	154	44	3.5	11926	301	110	2.7
POST TRANSPLANT	LRD	283	3	1.2	2.5	195	7	1.6	4.4	478	10	2.8	3.6
	CD	3150	146	49	3.0	2325	182	46	3.9	5475	328	95	3.4

* Obs Ca = Observed cancers
 ** Exp Ca = Expected cancers
 *** Risk Ratio = $\frac{\text{Obs Ca}}{\text{Exp Ca}}$

Figure 48.

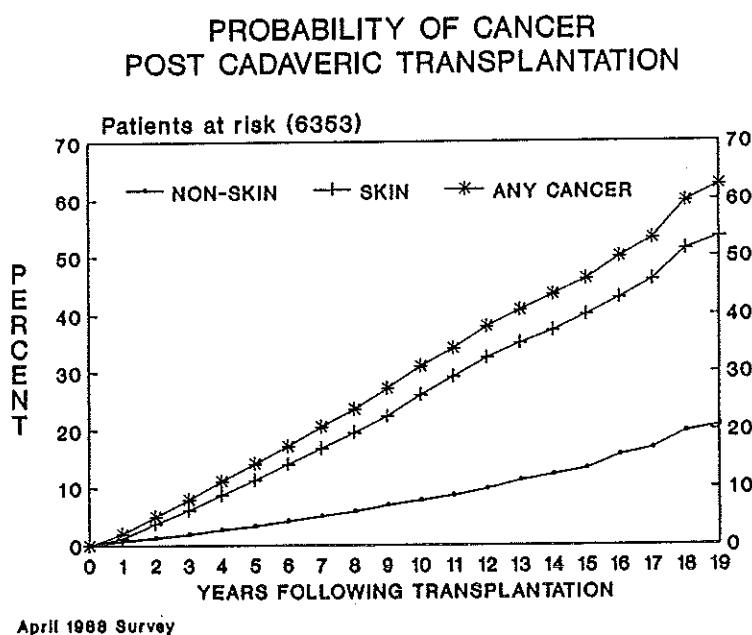


TABLE 62

RISK OF SPECIFIC CANCER FOLLOWING CADAVERIC DONOR
RENAL TRANSPLANTATION 1965-1988

SITE OF CANCER	OBSERVED CA	EXPECTED CA	RISK RATIO
BUCCAL CAVITY	7	4.0	1.8
PHARYNX	2	0.8	2.5
ESOPHAGUS	6	0.8	7.3
STOMACH	4	3.0	1.3
SMALL INTESTINE	1	0.3	3.8
COLON	23	7.6	3.0
RECTUM AND ANUS	10	5.1	2.0
LIVER	5	0.5	9.2
GALL BLADDER AND EXTRA HEPATIC BILE DUCTS	1	0.9	1.1
PANCREAS	4	1.8	2.3
LARYNX	2	1.1	1.9
TRACHEA, BRONCHUS AND LUNG	27	12.1	2.2
PLEURA	4	0.4	10.1
BONE	0	0.2	0.0
CONNECTIVE TISSUE	0	1.1	0.0
BREAST - FEMALE	16	14.7	1.1
BREAST - MALE	1	0.2	5.4
CERVIX - INSITU	21	6.8	3.1
CERVIX - INVASIVE	11	2.0	5.4
UTERUS	5	2.2	2.3
OVARY	0	2.3	0.0
VULVA AND VAGINA	13	0.4	31.6
PROSTATE	2	3.9	0.5
TESTIS	3	1.2	2.6
PENIS	0	0.3	0.0
BLADDER	22	4.3	5.1
KIDNEY	20	2.3	8.5
URETER	7	0.0	276
LYMPHOMA - CNS	16	0.0	>1000
OTHER CNS	2	2.5	0.8
THYROID	7	0.0	322
PARATHYROID	0	0.0	0.0
OTHER ENDOCRINE	0	1.1	0.0
DIFFUSE NON-HODGKIN'S LYMPHOMA	29	3.6	8.1
HODGKIN'S DISEASE	0	0.8	0.0
MULTIPLE MYELOMA	3	0.9	3.2
LEUKAEMIA	19	2.7	6.9
KAPOSI'S SARCOMA	10	0.0	>1000
OTHER	12	1.0	11.9
UNKNOWN	13	2.3	5.7
MALIGNANT MELANOMA	29	6.9	4.2

CANCER IN PATIENTS TREATED WITH CYCLOSPORIN A (CyA) AND/OR AZATHIOPRINE (AZA)

Cyclosporin A was introduced into clinical practice in 1980. It was used in a trial at one hospital as sole maintenance therapy compared to patients treated with Azathioprine and Prednisolone (Pred). It was subsequently (1983) used in a multicentre trial with the same two arms and an additional arm in which Cyclosporin A was used for three months with a changeover to Azathioprine and Prednisolone at that time.

Since the conclusion of that trial in 1986 Cyclosporin A has continued to be used frequently as a first-line immunosuppressant and recently (1988) another multicentre trial has begun comparing Cyclosporin A and Prednisolone to Cyclosporin A, Prednisolone and Azathioprine and to Cyclosporin A and Azathioprine. The analysis of cancer development in all these groups is complex and is proceeding.

The current situation for patients who started in various trial arms is shown in Table 63. The influence of Prednisolone is not addressed in these patients. For those starting on Azathioprine alone or Cyclosporin A, alone worthwhile numbers of patients are available at five to six years following transplantation (406 Aza patients, 30 CyA). These patients all received the respective therapy for at least three months and the majority for the entire period. However, small numbers in both groups were changed to alternative therapy. It seems that there is at least no difference in the non-skin and skin cancers developing in Cyclosporin A treated patients and it is possible that these numbers may be increased.

For patients beginning with concomitant Azathioprine and Cyclosporin A therapy at the time of transplantation, worthwhile numbers (118) of patients are available only until two to three years post transplantation at which time few patients had developed non-skin carcinomas but 5% had developed skin cancer. This is slightly increased upon the proportion developing skin cancer at this time when treated with Azathioprine alone.

TABLE 63

PROBABILITY OF CANCER RELATED TO INITIAL DRUG TREATMENT

TYPE OF CANCER	AZA * ALONE (n=818) (5-6 YR. POST TX) %	CyA * ALONE (n=652) (5-6 YR. POST TX) %	AZA + CyA (n=617) (2-3 YR. POST TX) %
NON SKIN	2.8	4.2	0.5
SKIN	9.6	14.5	5.0
ANY CANCER	13.3	17.8	5.5

* AZA = Azathioprine

* CyA = Cyclosporin A

NEW ZEALAND

NEW ZEALANDCONTENTSPage

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SUMMARY - NEW ZEALAND

The salient features from the last survey year to 31st. October, 1988 were:

- 1) There were 944 patients (282 per million) in New Zealand receiving treatment for renal failure. 469 patients (140 per million) were dialysis dependent and 475 patients (142 per million) had a functioning transplant. See Page 118.

The margin in favour of transplantation had been increasing since 1986.

- 2) There were 145 new patients (43 per million) treated in 1988, the largest age group was 50-59 years (30%), followed by 40-49 years (18%). 17% of new patients were more than 60 years old. See Page 132.

22% of new patients were of Maori descent.

Diabetic nephropathy, 22% of new patients, followed glomerulonephritis as the most common form of primary renal disease. 56% of Maoris (18 of 32 patients) and 12% of non Maoris (14 of 114 patients) had diabetic nephropathy. See Pages 119 and 132-134.

- 3) Dialysis patients increased by 35 patients (8%), mostly in the CAPD group.

76% of patients dialysed at home (55% CAPD), but hardly any (1%) in self-care satellite haemodialysis facilities. See Pages 132-133.

The number of deaths decreased amongst CAPD patients. See Page 124.

SUMMARY - NEW ZEALAND

- 4) There appeared to be an advantage in diabetic patient survival with continuous peritoneal dialysis (mainly CAPD) compared to haemodialysis.

Conversely non-diabetic patient survival was notably better with haemodialysis. See Page 126.

- 5) There were 81 transplant operations in 1988, relatively unchanged over five years (with the exception of 1986). The number of patients transplanted in New Zealand since 1963 exceeded 1000 during the year. 475 of 1388 grafts performed since 1963 were still functioning at 31st. October, 1988. See Page 128.

- 6) The twelve month graft survival for primary and second cadaver grafts from 1985-1988 were 73% and 55% respectively. See Page 128.

The twelve month survival of primary cadaver grafts performed during 1987 was 79%. The patient survival was 92%.

- 7) The five year survival expectation was 62% with integrated dialysis/transplant treatment. In relation to age, the five year survivals were 96%, 87%, 71%, 49% and 35% for age groups 0-14 years, 15-29 years, 30-44 years, 45-59 years and 60-85 years respectively. See Page 130.

Figure 49.

STOCK AND FLOW - NEW ZEALAND 1983-1988

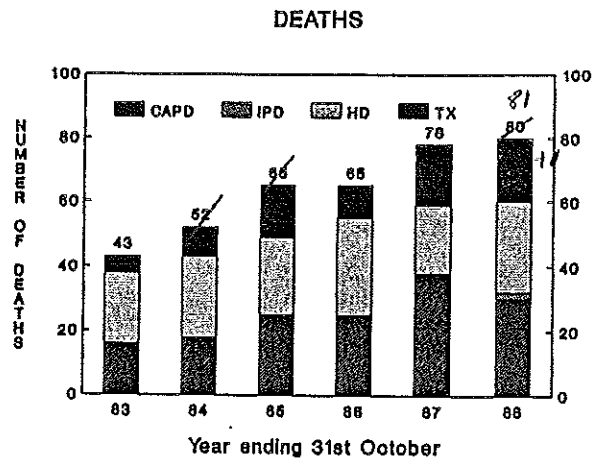
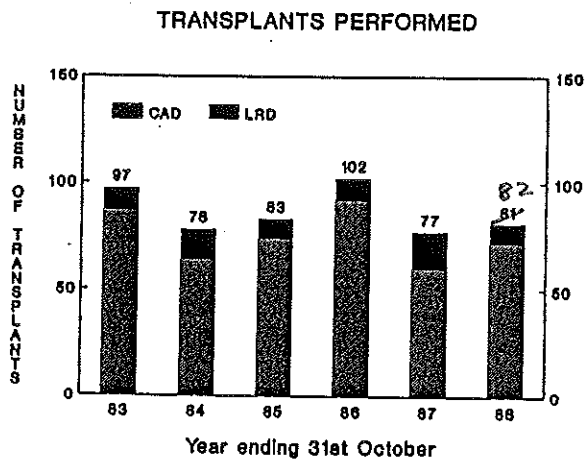
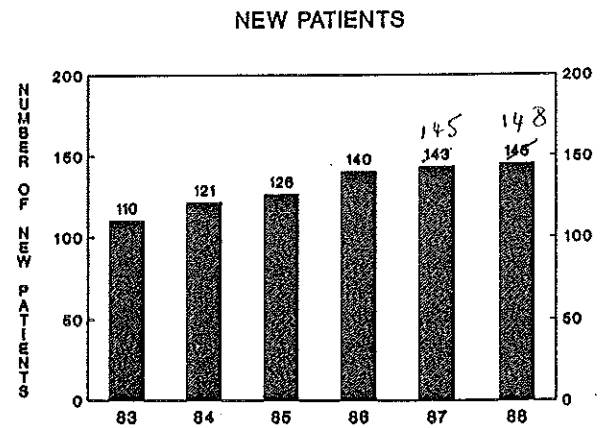
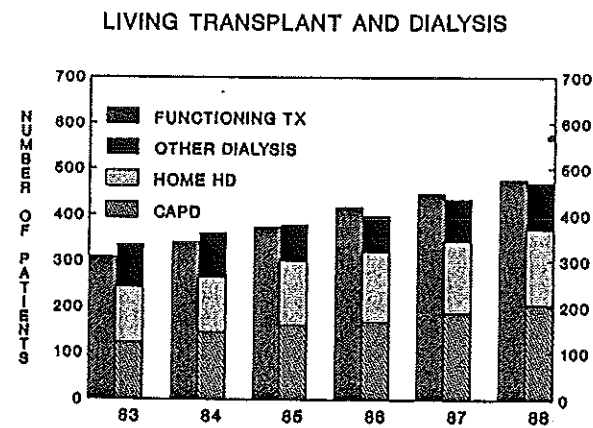


TABLE 64

STOCK OF PATIENTS 1983-1988

	31.10.84	31.10.85	31.10.86	31.10.87	31.10.88
NUMBER FUNCTIONING TRANSPLANTS	341 (106)	374 (113)	417 (128)	446 (137)	475 (142)
NUMBER OF DIALYSIS PATIENTS	360 (111)	379 (115)	398 (122)	434 (134)	469 (140)
PROPORTION DIALYSING AT HOME	72%	77%	78%	77%	76%
PROPORTION SATELLITE	1%	1%	1%	1%	1%
PROPORTION CAPD	40%	41%	42%	43%	44%

() Number of patients per million population.

TABLE 65

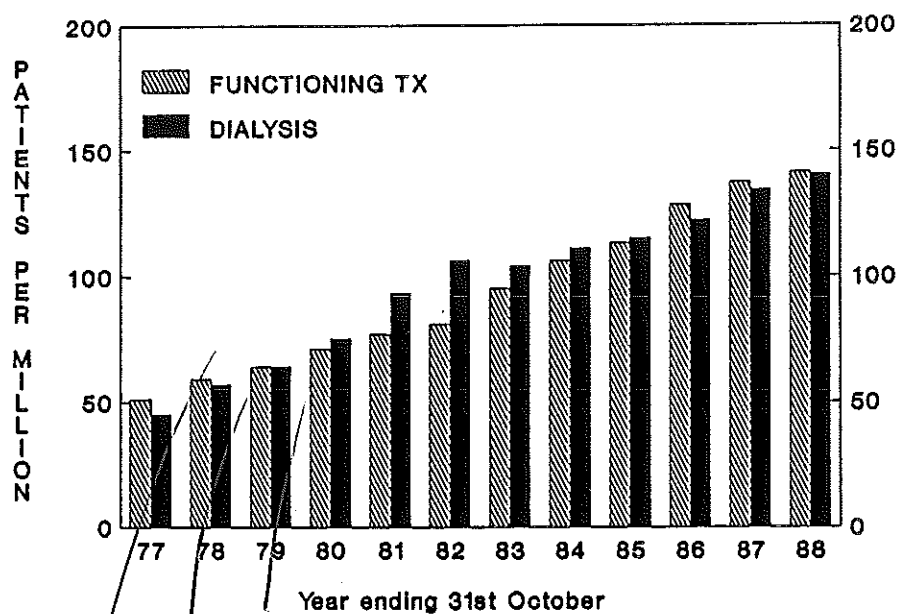
PATIENT FLOW SUMMARY 1983-1988

	1.11.83- 31.10.84	1.11.84- 31.10.85	1.11.85- 31.10.86	1.11.86- 31.10.87	1.11.87- 31.10.88
NUMBER OF NEW PATIENTS	110 (34)	121 (37)	~~126~~ 140 (43)	~~145~~ 143 (44)	~~145~~ 145 (43)
NUMBER OF NEW TRANSPLANTS	78 (24)	83 (25)	102 (31)	77 (24)	~~81~~ 82 (24)
LIVING DONOR TRANSPLANTS	14	9	10	~~17~~ 16	~~9~~ 10
NON PRIMARY TRANSPLANTS	14	24	31	17	20
NUMBER OF DEATHS	51	64	65	78	~~80~~ 81
DIALYSIS PATIENTS	42	49	55	59	60
TRANSPLANT PATIENTS	9	15	10	19	20

() Number of patients per million population.

Figure 50 *66*

LIVING TRANSPLANT AND DIALYSIS PATIENTS NEW ZEALAND 1977-1988

TABLE 66 *68*

LIVING TRANSPLANT AND DIALYSIS PATIENTS 1977-1988

	FUNCTIONING TRANSPLANT	PER MILLION	DIALYSIS	PER MILLION	TOTAL	PER MILLION
OCTOBER						
1977	158	51	141	45	299	96
1978	176	59	171	57	347	116
1979	198	64	200	64	398	128
1980	219	71	232	75	451	145
1981	241	77	290	93	531	170
1982	257	81	334	106	591	187
1983	308	95	335	104	643	199
1984	341	106	360	111	701	217
1985	374	113	379	115	753	228
1986	417	128	398	122	815	251
1987	446	137	434	134	880	271
1988	475	142	469	140	944	282

1989 5009 152 518 154 1027 306

TABLE 67

NUMBER OF NEW NON ANALGESIC PATIENTS 1983-1988

YEAR	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80-89 YEARS	TOTAL	
1983	-	7	18	17	17	21	12	1	-	93	45 = 98
1984	1	8	15	18	27	30	9	1	-	109	+1 = 110
1985	-	8	14	20	22	39	14	2	-	119	42 = 121
1986	1	6	13	15	28	40	19	3	-	125	+1 = 126
1987	4-5	7 ✓	24 ✓	20 ✓	34 39	29 31	16 ✓	4 ✓	-	138 140	76 = 146
1988	-	10 11	21 22	19 ✓	26 27	43 44	21 24	3 ✓	1 ✓	144 150	+1 = 151
1989	1	4	18	28	37	42	23	5	-	158	+2 = 160

TABLE 68

PRIMARY RENAL DISEASE OF NEW PATIENTS 1983-1988*

PRIMARY RENAL DISEASE	1983	1984	1985	1986	1987	1988	1989
GLOMERULONEPHRITIS	35% (34)	32% (35)	30% (36)	28% (35)	43% (62)	30% (44)	33% (52)
ANALGESIC NEPHROPATHY	5% (5)	1% (1)	2% (2)	1% (1)	4% (5) (6)	1% (1)	1% (1)
POLYCYSTIC DISEASE	6% (6)	6.7% (8) 7	7% (8)	11% (14)	7.6% 10 (9)	10% (14)	8% (13)
REFLUX NEPHROPATHY	9% (9)	2.11% (12) 13	11% (14)	10% (13)	4% (6)	11% 10% (15)	8% (13)
HYPERTENSION	11% (11)	8% (9)	9% (11)	12% (15)	10% (14)	11% 12% (17)	9% (14)
DIABETIC NEPHROPATHY	20% (19)	22% (24)	21% (26)	18% (23)	18% (26)	22% (32)	25% (40)
MISCELLANEOUS	9% (9)	14% (15)	15% (18)	11% (14)	12% (17) (8)	14% (20)	11% (18)
UNCERTAIN	5% (5)	5% (6)	4.5% (6) 5	9% (11)	3% (4)	1% (2)	5% (8)
TOTAL	100% (98)	100% (110)	100% (121)	100% (126)	100% (143) 146	100% (145) 151	100% (160)

* 12 months ending 31st. October.

() Number of patients in brackets.

TABLE 69

TYPES OF GLOMERULONEPHRITIS 1.11.87-31.10.88

	NEW ZEALAND 45/44 PATIENTS	
NO BIOPSY	27%	(12)
FOCAL SCLEROSING	9%	(4)
MCGN I (SUBENDOTHELIAL DEPOSITS)	14%	(6)
MEMBRANOUS GN	7%	(3)
RAPIDLY PROGRESSIVE GN	-	-
MESANGIO PROLIFERATIVE - IgA +	9%	(4)
- IgA -	7%	(3)
- No I.F.	5%	(2)
FOCAL AND SEGMENTAL PROLIFERATIVE GN	5%	(2)
ADVANCED GN (END-STAGE TYPE)	11%	(5)
GN WITH SYSTEMIC DISEASE	-	-
GOODPASTURE'S SYNDROME	-	-
ANTI-GBM (no haemoptysis)	-	-
S.L.E.	2%	(1)
HENOCH-SCHONLEIN PURPURA	-	-
WEGENER'S GRANULOMATOSIS	-	-
POLYARTERITIS NODOSA	2%	(1)
SCLERODERMA	-	(1)
GN OTHER	-	-
FAMILIAL GN	2%	(1)

() Number of patients

TABLE 70

MISCELLANEOUS CAUSES OF PRIMARY RENAL DISEASE 1988

	NEW ZEALAND 21/20 PATIENTS
CALCULI	3
BLADDER NECK OBSTRUCTION (INCLUDING PROSTATOMEGALY)	2
GOUT	2
HAEMOLYTIC URAEMIC SYNDROME	2
INTERSTITIAL NEPHRITIS	2
PYELONEPHRITIS	2
CORTICAL NECROSIS	1
MEDULLARY CYSTIC DISEASE	1-2
MULTIPLE MYELOMA	1
OTHER LOWER URINARY TRACT ABNORMALITIES (WITH SECONDARY REFLUX)	1
RENAL CELL CARCINOMA	1
SARCOIDOSIS WITH CALCULI AND LOWER URINARY TRACT ABNORMALITIES	1
SPINA BIFIDA OR MYELOMENINGOCOELE	1

TABLE 71

REHABILITATION GRADING OF NEW ZEALAND PATIENTS AT 31.10.88

TYPE OF TREATMENT	10	20	30	40	50	60	70	90	100	TOTAL
<u>DIALYSIS</u>										
HOSPITAL CAPD	1	-	-	3	-	5	-	-	-	9
HOME CAPD	76	43	3	1	9	34	25	5	-	196
HOSPITAL HD	14	28	5	13	5	25	8	-	-	98
SATELLITE HD	2	-	-	-	-	1	1	-	-	4
HOME HD	81	17	9	3	13	14	23	2	-	162
TOTAL	174 (37%)	88 (19%)	17 (4%)	20 (4%)	27 (6%)	79 (17%)	57 (12%)	7 (1%)	-	469
FUNCTIONING TRANSPLANTS	333 (72%)	50 (11%)	10 (2%)	-	3 (1%)	24 (5%)	29 (6%)	14 (3%)	1 (<1%)	464*
TOTAL	507 (54%)	138 (15%)	27 (3%)	20 (2%)	30 (3%)	103 (11%)	86 (9%)	21 (2%)	1 (<1%)	933

* Total as for caring hospital.

10 = Able to work and working full time (including full time housework)
 20 = Able to work and working part time.
 30 = Able to work, but not yet working due to inability to get a job.
 40 = Able to work, but not yet working due to dialysis schedule.
 50 = Able to work, but not yet working due to disinclination.
 60 = Medically unfit for work or home duties.
 70 = Able to work, but retired.
 90 = Paediatric patient < 15 years or still at school. (Refer to Paediatric Table)
 100 = Lost to follow up.

TABLE 72

REHABILITATION GRADING OF PAEDIATRIC PATIENTS AT 31.10.88

TYPE OF TREATMENT	91	92	93	94	95	96	97	TOTAL
<u>DIALYSIS</u>								
HOSPITAL CAPD	-	-	-	-	-	-	-	-
HOME CAPD	4	-	-	-	-	-	1	5
HOSPITAL HD	-	-	-	-	-	-	-	-
HOME HD	1	-	1	-	-	-	-	2
TOTAL	5 (72%)	-	1 (14%)	-	-	-	1 (14%)	7
FUNCTIONING TRANSPLANTS	13 (93%)	-	1 (7%)	-	-	-	-	14*
TOTAL	18 (86%)	-	2 (10%)	-	-	-	1 (4%)	21

* Total as for caring hospital.

91 = Attends school full time in class appropriate for age.
 92 = Attends school in class appropriate for age but attendance limited by dialysis schedule.
 93 = Attends school in class lower than appropriate for age.
 94 = Attends school for physically handicapped children.
 95 = Attends school for developmentally handicapped children.
 96 = Medically unfit for school.
 97 = Preschool child.

TABLE 73

NEW ZEALAND TRANSPLANT LIKELIHOOD AT 31.10.88

LIKELIHOOD OF TRANSPLANTATION			HAEMODIALYSIS			CAPD
			HOSP	HOME	SAT	
FIT NON-SENSITISED PATIENT	220	(47%)	40	74	1	105
SENSITISED Ab > 20% OR < 60%	19	(4%)	3	12	-	4
SENSITISED Ab > 60%	15	(3%)	1	11	-	3
EXCELLENT MATCH REQUIRED	8	(2%)	7	-	-	1
REFUSAL TO HAVE TRANSPLANT	54	(12%)	8	26	-	20
TECHNICAL DIFFICULTIES	18	(4%)	10	6	-	2
RECURRENT NEPHRITIS IN GRAFT	-	-	-	-	-	-
AGE	43	(9%)	8	9	1	25
CHRONIC OBSTRUCTIVE AIRWAYS DISEASE	6	(1%)	3	2	-	1
BRONCHIECTASIS	4	(1%)	1	-	-	3
SEVERE ISCHAEMIC HEART DISEASE	17	(4%)	4	2	-	11
MALIGNANCY	7	(1%)	1	2	-	4
OTHER REASONS	58	(12%)	12	18	2	26
TOTAL PATIENTS	469	(100%)	98	162	4	205

TABLE 74

QUALITY OF LIFE ASSESSMENT AT 31.10.88

TYPE OF TREATMENT	100	90	80	70	60	50	40	30	20	10	00	TOTAL
DIALYSIS												
HOSPITAL CAPD	1	2	2	2	-	-	1	1	-	-	-	9
HOME CAPD	46	68	48	14	8	7	5	-	-	-	-	196
HOSPITAL HD	10	26	36	15	4	3	2	2	-	-	-	98
SATELLITE HD	3	-	-	-	-	-	-	-	1	-	-	4
HOME HD	83	46	22	7	-	3	1	-	-	-	-	162
TOTAL	143 (30%)	142 (30%)	108 (23%)	38 (8%)	12 (3%)	13 (3%)	9 (2%)	3 (1%)	1 (<1%)	-	-	469
FUNCTIONING TRANSPLANTS	233 (50%)	167 (36%)	50 (11%)	7 (2%)	4 (1%)	-	2 (<1%)	-	-	-	1 (<1%)	464*
TOTAL	376 (60%)	309 (33%)	158 (17%)	45 (5%)	16 (2%)	13 (1%)	11 (1%)	3 (<1%)	1 (<1%)	-	1 (<1%)	933

* Total as for caring hospital.

- 100 = Normal: No complaints, no evidence of disease.
 90 = Able to carry on normal activity, minor signs or symptoms of disease.
 80 = Normal activity with effort, some signs or symptoms of disease.
 70 = Care for self; unable to carry on normal activity or do active work.
 60 = Requires occasional assistance but able to care for most needs.
 50 = Requires considerable assistance and frequent medical care.
 40 = Disabled; requires special care and assistance.
 30 = Severely disabled; hospital care indicated but death not imminent.
 20 = Very sick, hospital care needed.
 10 = Moribund, fatal process progressing rapidly.
 00 = Lost to follow up.

TABLE 75

CAUSE OF DEATH - NEW ZEALAND 1988DIALYSIS DEPENDENT

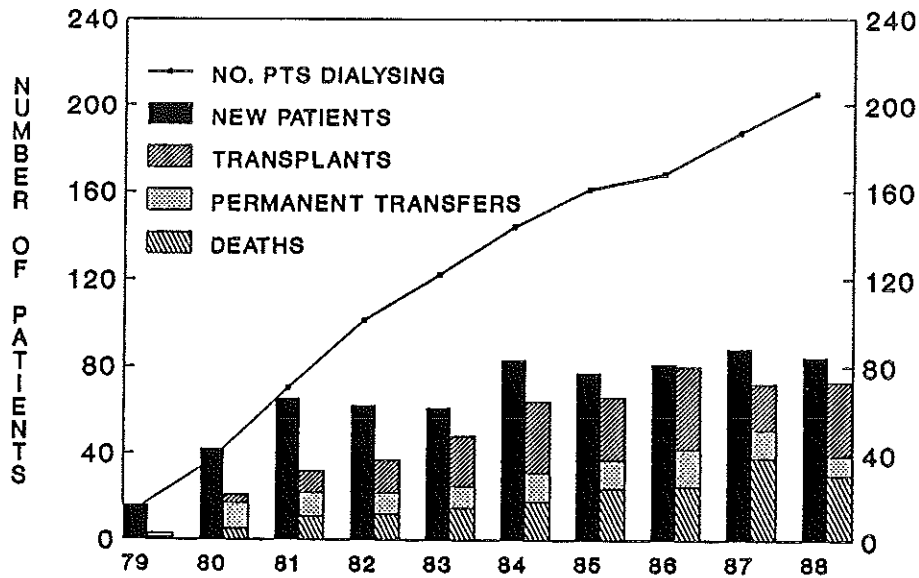
<u>CARDIAC</u>		<u>VASCULAR</u>	
Myocardial infarction	11	Cerebrovascular accident	2
Pulmonary oedema	1	Aortic aneurysm	1
Hyperkalaemia	2	Haemorrhage	1
Cardiac arrest	11	(post haemorrhoidectomy)	
Other causes of cardiac failure	3		
TOTAL	28 (47%)	TOTAL	4 (6%)
<u>INFECTION</u>		<u>MISCELLANEOUS</u>	
Lung - (Bacterial)	1	Pancreatitis	2
Shunt - (Bacterial)	2	Cachexia	1
Peritonitis - (Bacterial)	1	Unknown	1
Peritonitis - (Fungal - Candida)	1	Malignant disease	4
Septicaemia - (Unknown)	1	Other	4
TOTAL	6 (10%)		
<u>SOCIAL</u>			
Refused further treatment	7		
Therapy ceased	3	TOTAL	12 (20%)
TOTAL	10 (17%)	TOTAL DEATHS	60 (100%)

TRANSPLANT DEPENDENT

<u>CARDIAC</u>		<u>VASCULAR</u>	
Myocardial infarction	9	Pulmonary embolus	1
		Cerebrovascular accident	2
		Aortic aneurysm	1
TOTAL	9 (45%)	TOTAL	4 (20%)
<u>INFECTION</u>		<u>MISCELLANEOUS</u>	
Lung - (Bacterial)	1	Hepatic failure	1
Peritonitis - (Not specified)	1	Uraemia caused by graft failure	1
Septicaemia - (Bacterial)	1	Malignant disease	1-2
TOTAL	3 (15%)		
<u>SOCIAL</u>			
Suicide	1	TOTAL	4-3 (15%)
TOTAL	1 (5%)	TOTAL DEATHS	21.20 (100%)

Figure 51.

STOCK AND FLOW OF C.A.P.D. NEW ZEALAND 1979-1988



1.11.86 - 31.10.87

31.10.88

20

TABLE 76

STOCK AND FLOW OF C.A.P.D. - NEW ZEALAND 1979-1988

	1978-1979	1979-1980	1980-1981	1981-1982	1982-1983	1983-1984	1984-1985	1985-1986	1986-1987	1987-1988
NEW PATIENTS	16	30	66	61	61	83	77	80	89	84
FIRST TREATMENT	10	30	37	37	43	48	61	55	54	54
PREVIOUS DIALYSIS	3	8	16	14	13	26	12	17	29	24
PREVIOUS TRANSPLANT	3	6	13	10	5	9	4	8	6	6
TRANSPLANTED	0	4	10	15	23	33	29	38	21	34
TRANSFERRED										
TEMPORARILY*	0	1	5	2	2	8	5	16	7	3
PERMANENTLY	2	12	11	10	10	13	13	17	13	9
DEATHS**										
NEVER TRANSPLANTED	0	4	9	11	12	17	20	21	32	27
PREVIOUSLY TRANSPLANTED	1	1	2	1	3	1	4	4	6	3
PATIENTS DIALYSING AT 31ST. OCTOBER	14	37	70	101	122	144	161	168	187	205
PATIENTS DIALYSING AT HOME 31ST. OCTOBER	11	29	65	98	119	141	153	161	179	196
% OF ALL HOME DIALYSIS PATIENTS	12%	23%	36%	40%	49%	54%	53%	52%	54%	55%

* Returned to CAPD within twelve months.

** Death while CAPD dependent.

Time period - 1st. November to 31st. October each year.

1989
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C.A.P.D. NEW ZEALAND 1983-1988

TABLE 77

CONTINUOUS PERIOD

	0-6 MONTHS	7-12 MONTHS	13-18 MONTHS	19-24 MONTHS	25-30 MONTHS	31-36 MONTHS	37-42 MONTHS	43-48 MONTHS	> 49 MONTHS
FIRST TREATMENT (662) PTS	210 189	167 136	113 102	90 79	47 41	49 34	32 29	15 ✓	48 37
ALL TREATMENTS (746) PTS	246 214	185 155	129 114	100 85	52 48	57 40	38 31	17 ✓	54 42

TABLE 78

AGE OF NEW PATIENTS

AGE*	1983	1984	1985	1986	1987	1988
0 - 19 YEARS	4 (7%)	8 (10%)	5 (6%)	4 (5%)	8 (9%)	23 (3%)
20 - 39 YEARS	21 (34%)	25 (30%)	22 (29%)	15 (19%)	25 (28%)	26 (31%)
40 - 59 YEARS	28 (46%)	39 (47%)	40 (52%)	46 (57%)	44 (49%)	39 (46%)
60 - 85 YEARS	8 (13%)	11 (13%)	10 (13%)	15 (19%)	12 (14%)	17 (20%)
TOTAL	61 (100%)	82 (100%)	76 (100%)	80 (100%)	89 (100%)	90 (100%)

* Age at start of CAPD treatment.

TABLE 79

PATIENTS DIALYSING AT 31ST. OCTOBER EACH YEAR

AGE*	1983	1984	1985	1986	1987	1988
0 - 19 YEARS	11 (9%)	10 (7%)	10 (6%)	9 (5%)	9 (5%)	7 (4%)
20 - 39 YEARS	43 (35%)	46 (32%)	46 (29%)	37 (22%)	51 (27%)	58 (28%)
40 - 59 YEARS	46 (38%)	62 (43%)	78 (48%)	90 (54%)	94 (51%)	99 (48%)
60 - 85 YEARS	22 (18%)	26 (18%)	27 (17%)	32 (19%)	33 (17%)	41 (20%)
TOTAL	122 (100%)	144 (100%)	161 (100%)	168 (100%)	187 (100%)	205 (100%)

* Age at 31st. October each year.

TABLE 80

PRIMARY RENAL DISEASE OF NEW PATIENTS

PRIMARY RENAL DISEASE	1983	1984	1985	1986	1987	1988
GLOMERULONEPHRITIS	19 (31%)	30 (36%)	24 (31%)	23 (29%)	37 (42%)	26 (31%)
ANALGESIC NEPHROPATHY	3 (5%)	1 (1%)	1 (1%)	1 (1%)	3 (3%)	12 (1%)
HYPERTENSION	5 (8%)	6 (7%)	8 (11%)	8 (10%)	9 (11%)	13 (16%)
POLYCYSTIC DISEASE	5 (8%)	2 (3%)	1 (1%)	4 (5%)	4 (5%)	6 (7%)
REFLUX NEPHROPATHY	5 (8%)	11 (13%)	9 (12%)	6 (8%)	1 (1%)	3 (3%)
DIABETIC NEPHROPATHY	17 (29%)	17 (21%)	21 (27%)	19 (24%)	22 (25%)	20 (24%)
MISCELLANEOUS	5 (8%)	11 (13%)	8 (11%)	9 (11%)	11 (12%)	13 (16%)
UNCERTAIN	2 (3%)	5 (6%)	3 (4%)	10 (12%)	2 (2%)	2 (2%)
TOTAL	61 (100%)	83 (100%)	77 (100%)	80 (100%)	89 (100%)	84 (100%)

TABLE 81

NEW ZEALAND DIALYSIS PATIENT AND TECHNIQUE SURVIVAL 1985-1988**PATIENT SURVIVAL**

TYPE OF DIALYSIS	3 MONTHS	6 MONTHS	1 YEAR	2 YEARS
<u>HAEMODIALYSIS</u>				
ALL PATIENTS (n=327)	96 $\pm$ 1 (216)	93 $\pm$ 2 (174)	92 $\pm$ 2 (112)	86 $\pm$ 3 (47)
DIABETIC (n= 47)	92 $\pm$ 5 (23)	87 $\pm$ 6 (18)	82 $\pm$ 8 (11)	60 $\pm$ 14 (2)
NON-DIABETIC (n=280)	97 $\pm$ 1 (193)	94 $\pm$ 2 (156)	93 $\pm$ 2 (101)	89 $\pm$ 3 (45)
<u>CAPD</u>				
ALL PATIENTS (n=314)	98 $\pm$ 1 (263)	94 $\pm$ 1 (215)	89 $\pm$ 2 (140)	77 $\pm$ 4 (52)
DIABETIC (n= 78)	99 $\pm$ 1 (63)	94 $\pm$ 3 (57)	87 $\pm$ 4 (43)	71 $\pm$ 7 (16)
NON-DIABETIC (n=236)	98 $\pm$ 1 (200)	94 $\pm$ 2 (158)	89 $\pm$ 2 (97)	79 $\pm$ 4 (36)

TECHNIQUE SURVIVAL

TYPE OF DIALYSIS	3 MONTHS	6 MONTHS	1 YEAR	2 YEARS
<u>HAEMODIALYSIS</u>				
ALL PATIENTS (n=327)	75 $\pm$ 2 (216)	71 $\pm$ 3 (174)	68 $\pm$ 3 (112)	61 $\pm$ 3 (47)
DIABETIC (n= 47)	61 $\pm$ 7 (23)	53 $\pm$ 8 (18)	46 $\pm$ 8 (11)	34 $\pm$ 10 (2)
NON-DIABETIC (n=280)	77 $\pm$ 3 (193)	74 $\pm$ 3 (156)	71 $\pm$ 3 (101)	66 $\pm$ 3 (45)
<u>CAPD</u>				
ALL PATIENTS (n=314)	95 $\pm$ 1 (263)	89 $\pm$ 2 (215)	78 $\pm$ 3 (140)	62 $\pm$ 4 (52)
DIABETIC (n= 78)	94 $\pm$ 3 (63)	90 $\pm$ 4 (57)	80 $\pm$ 5 (43)	59 $\pm$ 7 (16)
NON-DIABETIC (n=236)	95 $\pm$ 1 (200)	89 $\pm$ 2 (158)	77 $\pm$ 3 (97)	63 $\pm$ 4 (36)

% Survival $\pm$ S.E. numbers at risk in brackets.

TABLE 82

SUMMARY RENAL TRANSPLANTATION 1963-1988*

	NEW ZEALAND
PATIENTS TRANSPLANTED	1040 ~~1041~~ 1097
GRAFTS PERFORMED	1338 ~~1339~~ 1409
a) CADAVER DONOR	1192 ~~1193~~ 1249
b) LIVING DONOR	146 ~~147~~ 160
GRAFTS FUNCTIONING*	475 ~~476~~ 509
a) PRIMARY	392 ~~393~~ 417
b) SECOND	70 ~~71~~ 79
c) THIRD	11 ~~12~~ 12
d) FOURTH	2 ~~3~~ 1

* As at 31st. October, 1988.

Figure 52.

LIVING DONOR GRAFTS - NEW ZEALAND
Relation donor to recipient 1977-1978

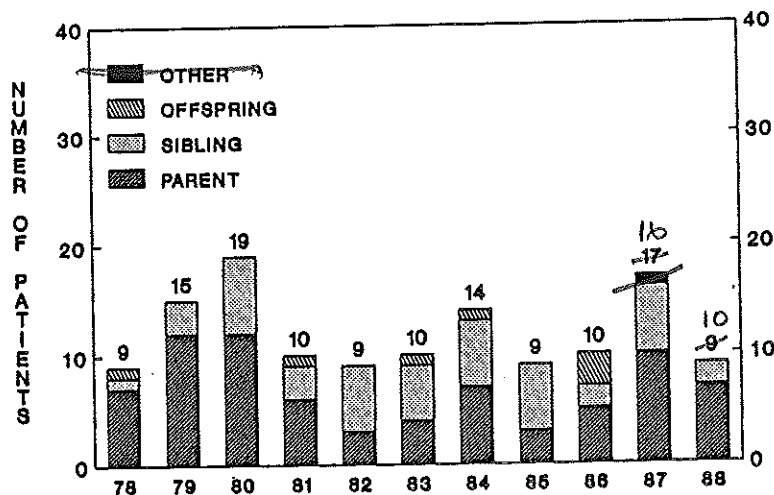


TABLE 83

SOURCE OF LIVING DONOR KIDNEY 1978-1988

SOURCE	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	TOTAL
MOTHER	4	8	7	4	1	4	7	1	1	6	4	47
FATHER	3	4	5	2	2	-	-	2	4	4	4	31
BROTHER	-	2	5	2	3	2	2	3	2	3	-	24
SISTER	1	1	2	1	3	3	4	3	-	3	2	23
OFFSPRING	1	-	-	1	-	1	1	-	3	-	-	7
OTHER	-	-	-	-	-	-	-	-	-	1	-	1
TOTAL	9	15	19	10	9	10	14	9	10	17	10	131

TABLE 84

NUMBER OF RENAL TRANSPLANT OPERATIONS

12 MONTHS TO OCT 31	NEW ZEALAND					TOTAL
	1st	2nd	3rd	4th		
1977	44	12	2	0	58	(3)*
1978	52	8	0	0	60	(9)
1979	55	9	3	2	69	(15)
1980	57	17	4	0	78	(19)
1981	56	7	1	0	64	(10)
1982	46	16	0	0	62	(9)
1983	69	24	4	0	97	(10)
1984	64	14	0	0	78	(14)
1985	59	21	3	0	83	(9)
1986	71	24	6	1	102	(10)
1987	60	13	3	1	77	(17)(16)
1988	61	13	7	0	81	(9)(10)
	62	13	1	-	70	(14)

The number of living donor grafts each year
is shown in parenthesis.

Figure 53.

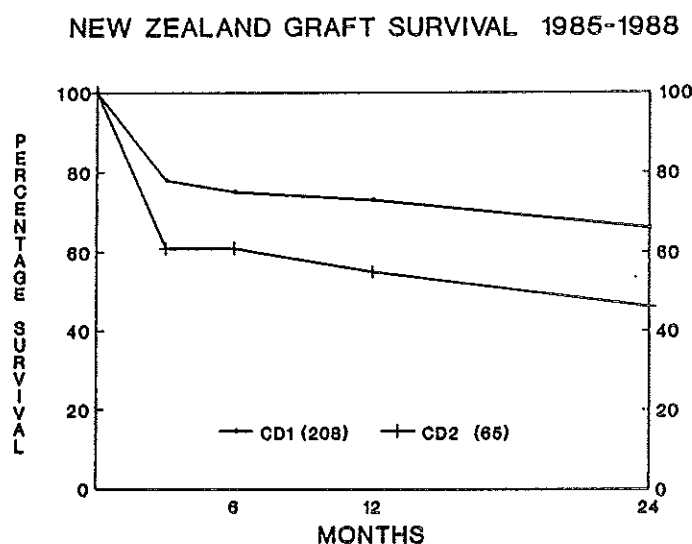


TABLE 85

PATIENT AND GRAFT SURVIVAL 1985-1988PATIENT SURVIVAL

	3 MONTHS	6 MONTHS	1 YEAR	2 YEARS
PRIMARY CADAVER GRAFT (n=208)	91 $\pm$ 2 (177)	93 $\pm$ 2 (166)	91 $\pm$ 2 (137)	85 $\pm$ 3 (89)
SECOND CADAVER GRAFT (n= 65)	94 $\pm$ 3 (59)	94 $\pm$ 3 (55)	88 $\pm$ 4 (47)	86 $\pm$ 5 (36)

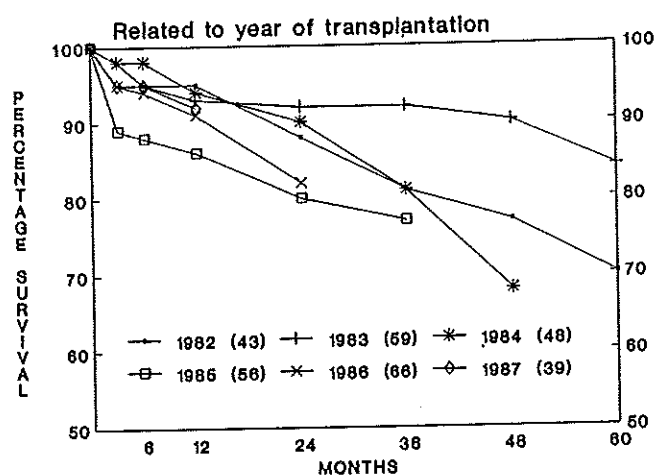
GRAFT SURVIVAL

	3 MONTHS	6 MONTHS	1 YEAR	2 YEARS
PRIMARY CADAVER GRAFT (n=208)	78 $\pm$ 3 (146)	75 $\pm$ 3 (136)	73 $\pm$ 3 (112)	66 $\pm$ 4 (69)
SECOND CADAVER GRAFT (n= 65)	61 $\pm$ 6 (38)	61 $\pm$ 6 (35)	55 $\pm$ 6 (28)	46 $\pm$ 7 (17)

% Survival $\pm$ S.E: numbers at risk in brackets.

Figure 54.

PRIMARY CADAVER PATIENT SURVIVAL 1982-1987



PRIMARY CADAVER GRAFT SURVIVAL 1982-1987

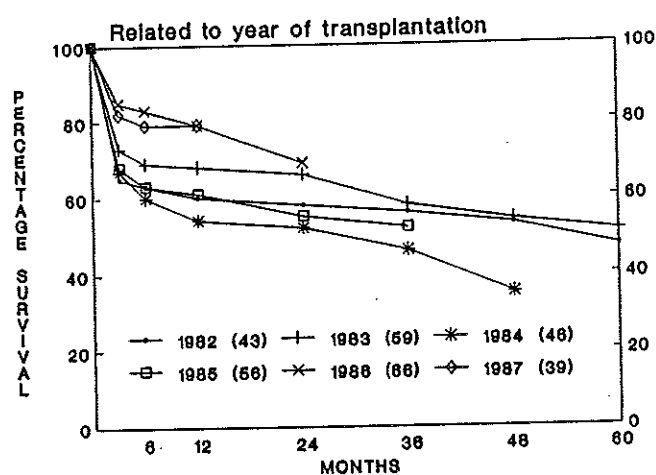


TABLE 86

PRIMARY CADAVER PATIENT AND GRAFT SURVIVAL

RELATED TO YEAR OF TRANSPLANTATION 1982-1988

PATIENT SURVIVAL

YEAR	3 MONTHS	6 MONTHS	1 YEAR	2 YEARS	3 YEARS
1982 (n=43)	95 ± 3 (41)	95 ± 3 (41)	95 ± 3 (41)	88 ± 5 (38)	81 ± 6 (35)
1983 (n=59)	98 ± 2 (58)	95 ± 3 (56)	93 ± 3 (55)	92 ± 4 (54)	92 ± 4 (54)
1984 (n=48)	98 ± 2 (47)	98 ± 2 (47)	94 ± 3 (45)	90 ± 4 (43)	81 ± 6 (39)
1985 (n=56)	89 ± 4 (50)	88 ± 4 (49)	86 ± 5 (48)	80 ± 5 (45)	77 ± 6 (39)
1986 (n=66)	95 ± 3 (63)	94 ± 3 (61)	91 ± 4 (59)	82 ± 5 (44)	*
1987 (n=39)	95 ± 4 (37)	95 ± 4 (37)	92 ± 4 (30)	*	*
1988 (n=47)	100 ± 0 (27)	100 ± 0 (19)	*	*	*

GRAFT SURVIVAL

YEAR	3 MONTHS	6 MONTHS	1 YEAR	2 YEARS	3 YEARS
1982 (n=43)	65 ± 7 (28)	63 ± 7 (27)	60 ± 7 (26)	58 ± 8 (25)	56 ± 8 (24)
1983 (n=59)	73 ± 6 (43)	69 ± 6 (41)	68 ± 6 (40)	66 ± 6 (39)	58 ± 6 (34)
1984 (n=48)	67 ± 7 (32)	60 ± 7 (29)	54 ± 7 (26)	52 ± 7 (25)	46 ± 7 (22)
1985 (n=56)	68 ± 6 (38)	63 ± 6 (35)	61 ± 7 (34)	55 ± 7 (31)	52 ± 7 (26)
1986 (n=66)	85 ± 4 (56)	83 ± 5 (55)	79 ± 5 (52)	69 ± 6 (38)	*
1987 (n=39)	82 ± 6 (32)	79 ± 6 (31)	79 ± 6 (26)	*	*
1988 (n=47)	76 ± 7 (20)	76 ± 7 (15)	*	*	*

% Survival ± S.E. numbers at risk in brackets.

Figure 55.

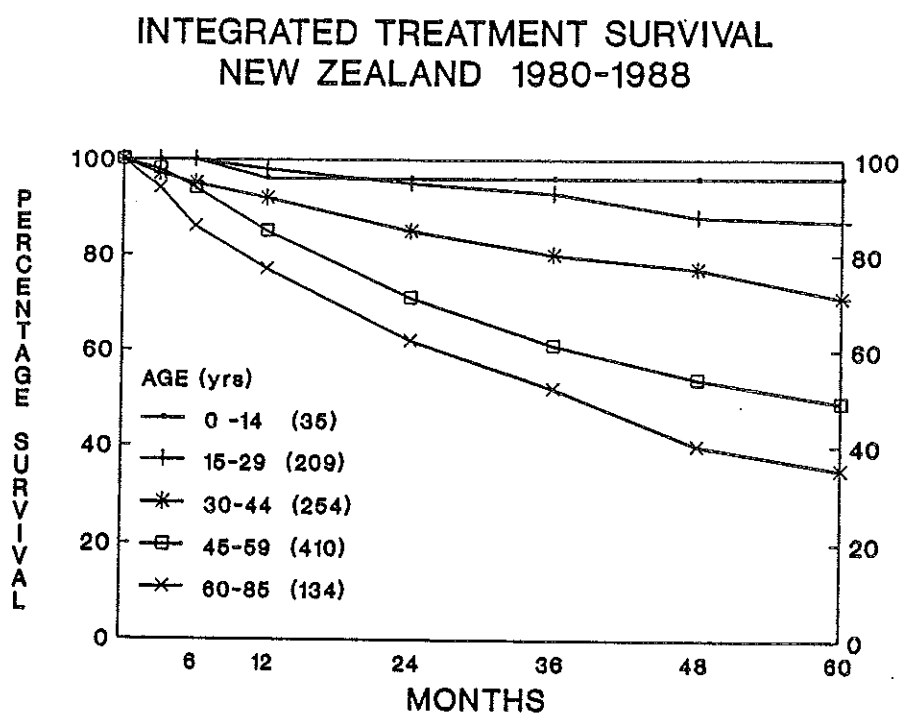


TABLE 87

INTEGRATED TREATMENT SURVIVAL - RELATED TO AGE

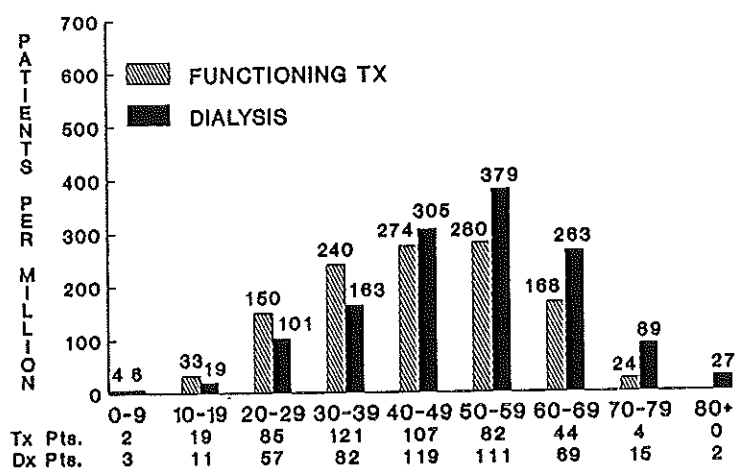
1980 - 1988

	1 YEAR	3 YEARS	5 YEARS
<u>ALL PATIENTS</u> (n=1042)	89 ± 1 (792)	72 ± 2 (445)	62 ± 2 (259)
<u>AGE</u>			
0-14 YEARS (n= 35)	100 ± 0 (32)	96 ± 4 (18)	96 ± 4 (15)
15-29 YEARS (n= 209)	98 ± 1 (176)	93 ± 2 (124)	87 ± 3 (84)
30-44 YEARS (n= 254)	92 ± 2 (205)	80 ± 3 (133)	71 ± 4 (77)
45-59 YEARS (n= 410)	85 ± 2 (299)	61 ± 3 (136)	49 ± 3 (70)
60-85 YEARS (n= 134)	77 ± 4 (80)	52 ± 5 (34)	35 ± 6 (13)

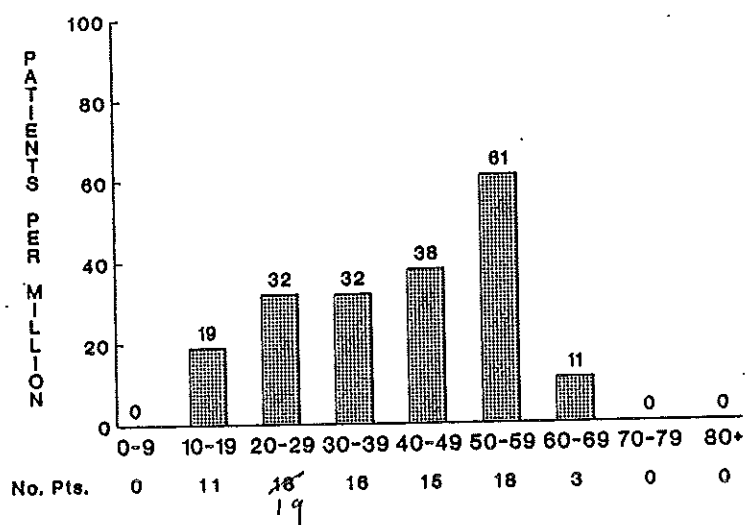
% Survival ± S.E: numbers at risk in brackets.

NEW ZEALAND 1988

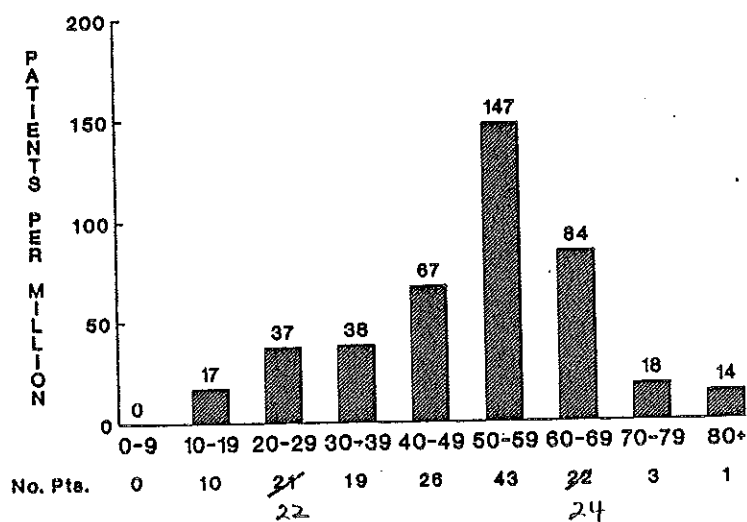
FUNCTIONING TRANSPLANT AND DIALYSIS



TRANSPLANT OPERATIONS



AGE OF NEW PATIENTS



SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988

NEW ZEALAND

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	-	10	21	19	26	43	22	3	1	145
PRIMARY RENAL DISEASE										
GLOMERULONEPHRITIS	-	5	9	12	-	13	2	2	1	44
ANALGESIC NEPHROPATHY	-	-	-	-	-	-	1	-	-	1
POLYCYSTIC KIDNEY DISEASE	-	-	-	-	8	5	1	-	-	14
REFLUX NEPHROPATHY	-	2	4	3	2	4	-	-	-	15
HYPERTENSION	-	1	-	-	4	5	6	1	-	17
DIABETES	-	-	3	4	11	10	4	-	-	32
MISCELLANEOUS	-	2	4	-	1	6	7	-	-	20
UNCERTAIN	-	-	1	-	-	-	1	-	-	2
PRIMARY TREATMENT										
HOSPITAL IPD	-	-	1	-	1	-	-	-	1	3
HOSPITAL HD	-	7	11	11	16	26	12	3	-	86
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	2	8	8	9	17	10	-	-	54
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	1	1	-	-	-	-	-	-	2
TRANSPLANT OPERATIONS										
CADAVER 1	-	4	13	7	11	16	3	-	-	54
CADAVER 2	-	1	3	3	3	1	-	-	-	11
CADAVER 3	-	-	1	4	1	1	-	-	-	7
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	-	5	17	14	15	18	3	-	-	72
LIVING DONOR 1	-	5	1	1	-	-	-	-	-	7
LIVING DONOR 2	-	1	-	1	-	-	-	-	-	2
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	-	6	1	2	-	-	-	-	-	9
TOTAL TRANSPLANT OPERATIONS	-	11	18	16	15	18	3	-	-	81
FUNCTIONING TRANSPLANTS 31.10.88										
CADAVER 1	-	6	42	70	75	74	36	4	-	307
CADAVER 2	-	2	10	28	13	4	2	-	-	59
CADAVER 3	-	-	2	4	4	-	1	-	-	11
CADAVER 4	-	-	1	1	-	-	-	-	-	2
TOTAL	-	8	55	103	92	78	39	4	-	379
LIVING DONOR 1	2	10	28	12	13	4	5	-	-	74
LIVING DONOR 2	-	1	2	6	2	-	-	-	-	11
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	2	11	30	18	15	4	5	-	-	85
TOTAL FUNCTIONING TRANSPLANTS	2	19	85	121	107	82	44	4	-	464*
PATIENTS DIALYSING 31.10.88										
HOSPITAL IPD	-	-	-	-	-	-	-	-	-	-
HOSPITAL HD	-	4	13	15	18	28	18	2	-	98
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	1	-	2	-	1	-	4
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	3	20	32	53	30	19	5	-	162
HOSPITAL CAPD	-	1	2	1	2	3	-	-	-	9
HOME CAPD	3	3	22	33	46	48	32	7	2	196
TOTAL PATIENTS DIALYSING	3	11	57	82	119	111	69	15	2	469
DEATHS										
HOSPITAL IPD	-	-	-	-	2	-	-	-	-	2
HOSPITAL HD	-	-	-	-	3	6	4	1	-	14
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	1	-	-	1
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	4	2	1	2	2	2	-	13
HOSPITAL CAPD	-	-	-	-	-	-	-	-	-	-
HOME CAPD	-	-	1	4	5	9	9	2	-	30
TOTAL DIALYSIS DEATHS	-	-	5	6	11	17	16	5	-	60
TOTAL TRANSPLANT DEATHS	-	1	-	2	5	7	3	2	-	20
TOTAL DEATHS	-	1	5	8	16	24	19	7	-	80

* By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988

AGE GROUP POPULATION RELATED (PATIENTS PER MILLION) NEW ZEALAND

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	-	17	37	38	67	147	84	18	14	43
PRIMARY RENAL DISEASE										
GLOMERULONEPHRITIS	-	9	16	24	-	44	8	12	14	13
ANALGESIC NEPHROPATHY	-	-	-	-	-	4	-	-	-	<1
POLYCYSTIC KIDNEY DISEASE	-	-	-	-	21	17	4	-	-	4
REFLUX NEPHROPATHY	-	3	7	6	5	14	-	-	-	4
HYPERTENSION	-	2	-	-	10	17	23	6	-	5
DIABETES	-	-	5	8	28	34	15	-	-	10
MISCELLANEOUS	-	3	7	-	3	20	27	-	-	6
UNCERTAIN	-	-	2	-	-	-	4	-	-	1
PRIMARY TREATMENT										
HOSPITAL IPD	-	-	2	-	3	-	-	-	14	1
HOSPITAL HD	-	12	19	22	41	89	46	18	-	26
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	3	14	16	23	58	38	-	-	16
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	2	2	-	-	-	-	-	-	1
TRANSPLANT OPERATIONS										
CADAVER 1	-	7	23	14	28	55	11	-	-	16
CADAVER 2	-	2	5	6	8	3	-	-	-	3
CADAVER 3	-	-	2	8	3	3	-	-	-	2
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	-	9	30	28	38	61	11	-	-	21
LIVING DONOR 1	-	9	2	2	-	-	-	-	-	2
LIVING DONOR 2	-	2	-	2	-	-	-	-	-	1
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	-	10	2	4	-	-	-	-	-	3
TOTAL TRANSPLANT OPERATIONS	-	19	32	32	38	61	11	-	-	24
FUNCTIONING TRANSPLANTS 31.10.88										
CADAVER 1	-	10	74	139	192	253	137	24	-	92
CADAVER 2	-	3	18	56	33	14	8	-	-	18
CADAVER 3	-	-	4	8	10	-	4	-	-	3
CADAVER 4	-	-	2	2	-	-	-	-	-	1
TOTAL	-	14	97	204	236	266	149	24	-	113
LIVING DONOR 1	4	17	49	24	33	14	19	-	-	22
LIVING DONOR 2	-	2	4	12	5	-	-	-	-	3
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	4	19	53	36	38	14	19	24	-	25
TOTAL FUNCTIONING TRANSPLANTS	4	33	150	240	274	280	168	24	-	139*
PATIENTS DIALYSING 31.10.88										
HOSPITAL IPD	-	-	-	-	-	-	-	-	-	-
HOSPITAL HD	-	7	23	30	46	96	69	12	-	29
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	2	-	7	-	6	-	1
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	5	35	63	136	102	73	30	-	48
HOSPITAL CAPD	-	2	4	2	5	10	-	-	-	3
HOME CAPD	6	5	39	65	118	164	122	42	27	59
TOTAL PATIENTS DIALYSING	6	19	101	163	305	379	263	89	27	140
DEATHS										
HOSPITAL IPD	-	-	-	-	5	-	-	-	-	1
HOSPITAL HD	-	-	-	-	8	20	15	6	-	4
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	4	-	-	<1
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	7	4	3	7	8	12	-	4
HOSPITAL CAPD	-	-	-	-	-	-	-	-	-	-
HOME CAPD	-	-	2	8	13	31	34	12	-	9
TOTAL DIALYSIS DEATHS	-	-	9	12	28	58	61	30	-	18
TOTAL TRANSPLANT DEATHS	-	2	-	4	13	24	11	12	-	6
TOTAL DEATHS	-	2	9	16	41	82	73	42	-	24

* By caring hospital.

RACIAL ORIGIN OF PATIENTS COMMENCING TREATMENT IN NEW ZEALAND1963 - 1988

RACIAL ORIGIN	NUMBER NEW PATIENTS 1988	NUMBER OF PATIENTS RECORDED IN REGISTRY
CAUCASIAN	94	1298
ABORIGINAL	-	-
CHINESE	1	16
MAORI	32	371
ARAB	-	-
PACIFIC ISLANDER	15	76
INDIAN	2	11
INDONESIAN	-	-
MALAY	1	1
FILIPINO	-	1
VIETNAMESE	-	1
OTHER	-	1
TOTAL	~~145~~	1776

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NEW ZEALAND POPULATION AS AT 31ST. MARCH, 1988

AGE GROUP	POPULATION
0-9 YEARS	511,330
10-19 YEARS	579,230
20-29 YEARS	566,090
30-39 YEARS	504,730
40-49 YEARS	390,620
50-59 YEARS	293,710
60-69 YEARS	262,720
70-79 YEARS	168,790
80-89 YEARS	74,000
TOTAL	3,351,220

APPENDIX

APPENDIX

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RACIAL ORIGIN OF NEW PATIENTS IN AUSTRALIA 1988

RACIAL ORIGIN	QLD	NSW	VIC	SA	WA	TAS	NT*	AUST
CAUCASIAN	110	266	151	66	46	19	1	659
ABORIGINAL	2	5	-	3	8	-	7	25
CHINESE	2	6	2	1	4	-	-	15
MAORI	-	1	-	-	1	-	-	2
ARAB	1	4	1	-	1	-	-	7
PACIFIC ISLANDER	5	5	2	-	-	-	-	12
INDIAN	1	5	1	-	1	-	-	8
INDONESIAN	-	1	-	-	-	-	-	1
MALAY	-	-	1	-	2	-	-	3
FILIPINO	2	2	3	-	-	-	-	7
VIETNAMESE	1	1	3	1	-	-	-	6
OTHER	1	11	1	-	1	-	-	14
TOTAL	125	307	165	71	64	19	8	759

* 6 Northern Territory residents received initial treatment in South Australia.

RACIAL ORIGIN OF PATIENTS TREATED IN AUSTRALIA 1963-1988

RACIAL ORIGIN	NUMBER PATIENTS RECORDED IN REGISTRY
CAUCASIAN	6442 (40)*
ABORIGINAL	171 -
CHINESE	117 (22)
MAORI	14 -
ARAB	18 -
PACIFIC ISLANDER	53 (4)
INDIAN	54 (6)
INDONESIAN	5 (1)
MALAY	19 (4)
FILIPINO	23 (2)
VIETNAMESE	28 (1)
OTHER	93 (4)
TOTAL	7037 (84)

* Comenced treatment outside Australia or New Zealand.

NOTE: 3113 (10)* patients not coded for racial origin.
(Deceased before 1.5.85 when racial origin collection began)

Total patients recorded in the Registry commencing treatment in Australia, New Zealand or overseas 1963-1988 = 11,926.

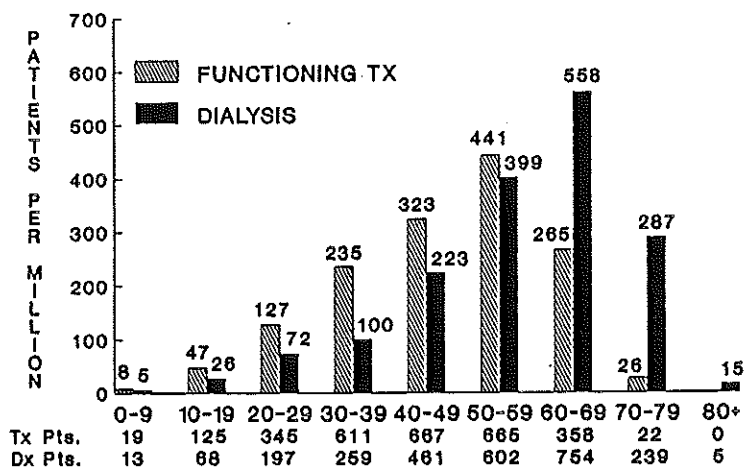
INDIVIDUAL STATE STOCK AND FLOW 1983-1988

STATE	NEW PATIENTS	NEW TRANSPLANTS	DIALYSIS DEATHS	TRANSPLANT DEATHS	ON DIALYSIS	FUNCT. TX (TX HOSP.)	TOTAL (DX TX PTS)
QUEENSLAND							
1983	86	67	36	14	239	254	493
1984	112	66	39	10	265	293	558
1985	108	69	29	9	307	323	630
1986	117	91	34	18	328	376	704
1987	146	70	48	12	382	409	791
1988	125-129	94	59	22	380	466	846
NEW SOUTH WALES							
1983	275	131	97	26	881	715	1596
1984	299	159	119	31-32	940	783	1723
1985	246	156	152	33	943	848	1791
1986	295-296	146	167	24	964	925	1889
1987	312-314	119	156	32	1039	964	2003
1988	307-312	157	144-148	32-33	1100	1043	2143
VICTORIA							
1983	123	103	43	13	466	474	940
1984	139	108	46	21	498	520	1018
1985	134	122	56	16	505	570	1075
1986	182	99	56	15	577	610	1187
1987	188-189	133	64	19	599	695	1294
1988	165-170	119	76-77	17-18	625	741	1366
SOUTH AUSTRALIA							
1983	48	31	13	7	188	189	377
1984	72	50	21	8	210	211	421
1985	61	34	31	3	219	234	453
1986	50	53	23	9	219	267	486
1987	63	49	24	13	231	289	520
1988	71	45	32	8	239	312	551
WESTERN AUSTRALIA							
1983	57	32	19	4	145	135	280
1984	61	37	25	3	151	164	315
1985	47	31	19	3	157	185	342
1986	52	39	20	6	165	208	373
1987	44	36	21	5	165	223	388
1988	64-70	33	22	3	191	237	428
TASMANIA							
1983	15	-	4	1	40	4	44
1984	12	-	13	-	36	4	40
1985	6	-	12	-	33	4	37
1986	11	-	5	1	31	4	35
1987	13	-	6	1	33	3	36
1988	19	-	7	3	43	2	45
NORTHERN TERRITORY							
1983	2	-	1	-	6	-	6
1984	5 (4)*	-	-	-	8	-	8
1985	15 (14)*	-	1	-	10	-	10
1986	12 (9)*	-	-	-	14	-	14
1987	13 (9)*	-	1	-	18	-	18
1988	8 (6)*	-	3	2	20	-	20

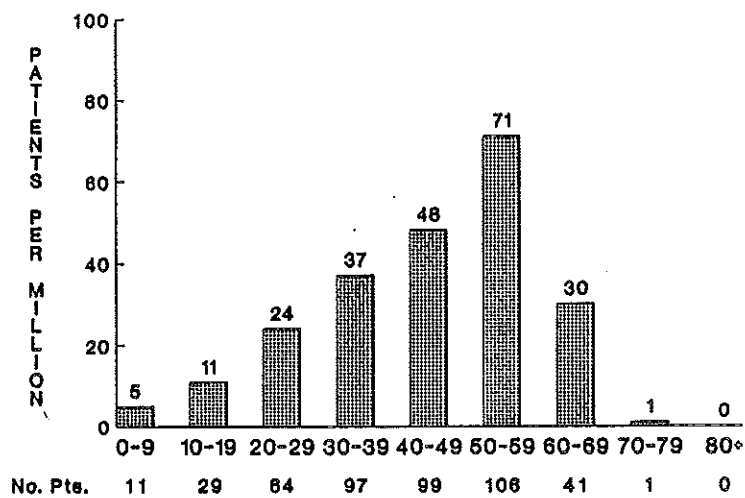
(*) These Northern Territory residents received initial treatment in South Australia.

AUSTRALIA 1988

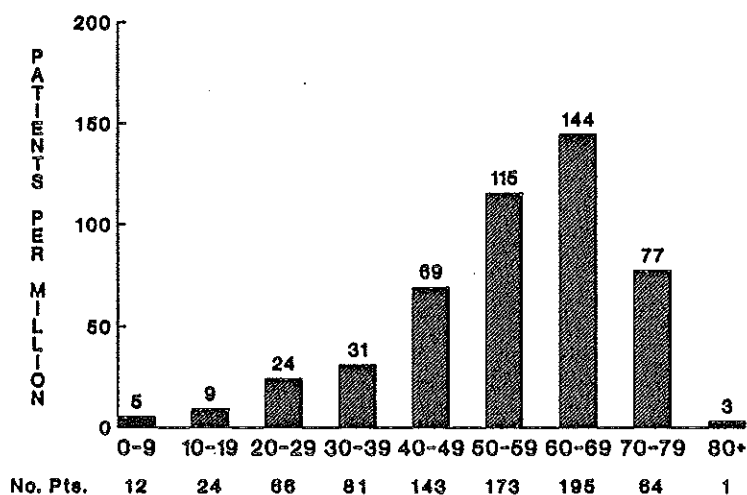
FUNCTIONING TRANSPLANT AND DIALYSIS



TRANSPLANT OPERATIONS

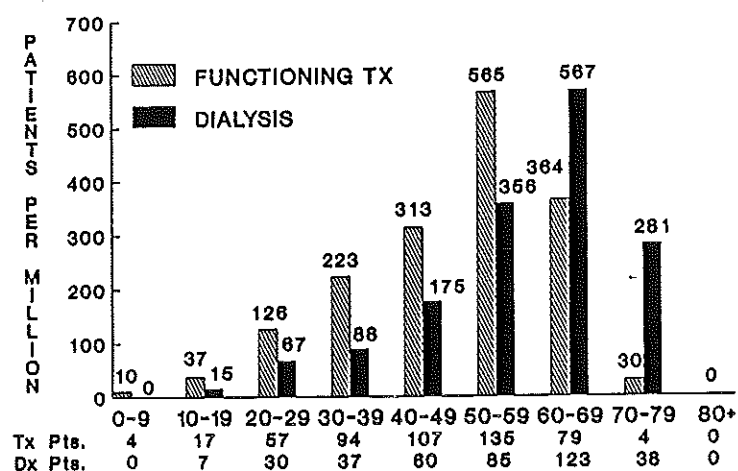


AGE OF NEW PATIENTS

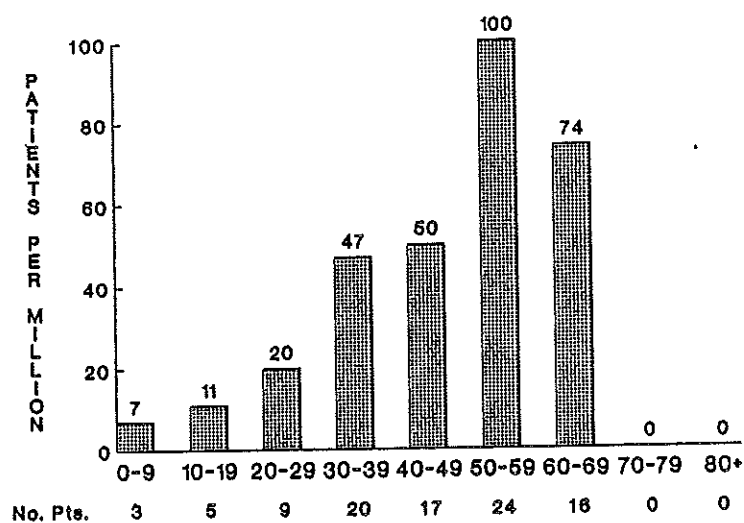


QUEENSLAND 1988

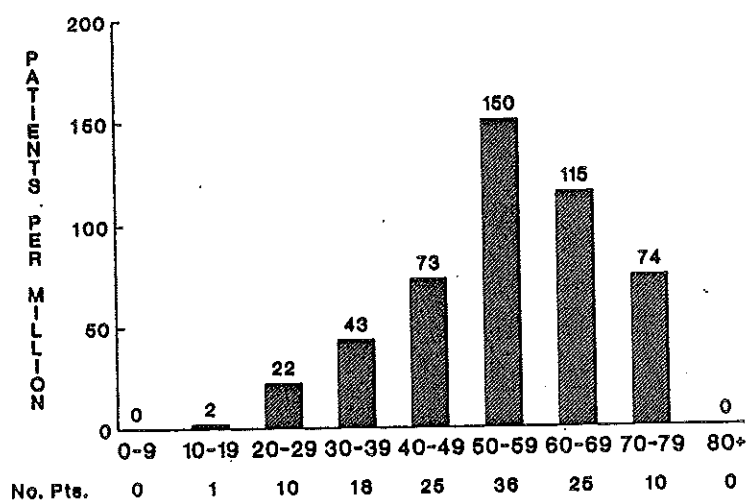
FUNCTIONING TRANSPLANT AND DIALYSIS



TRANSPLANT OPERATIONS

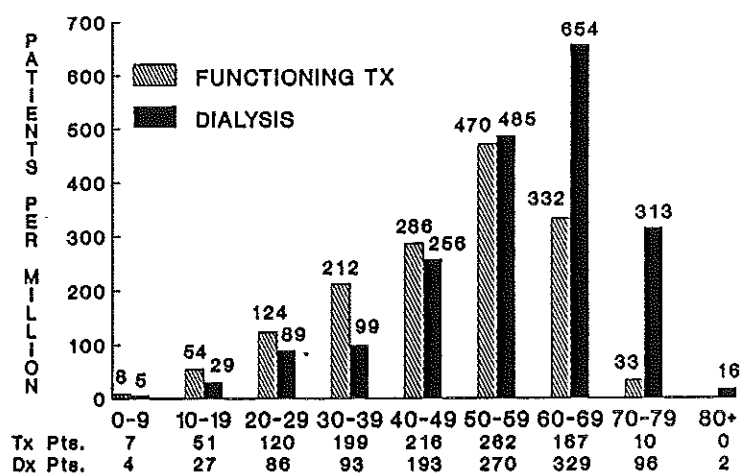


AGE OF NEW PATIENTS

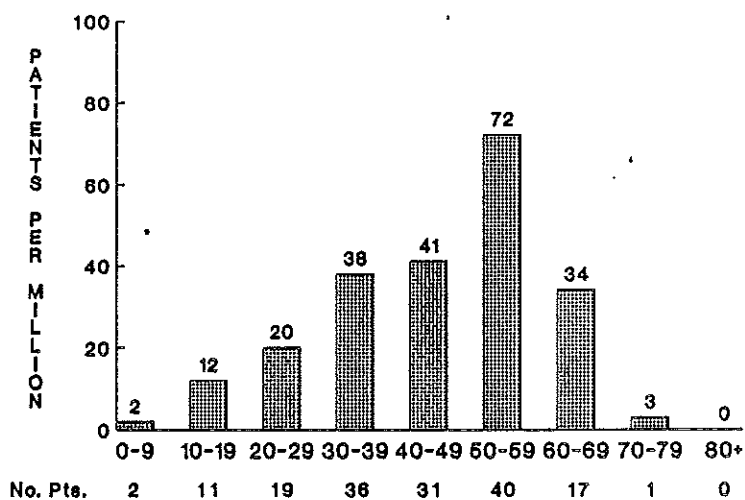


NEW SOUTH WALES 1988

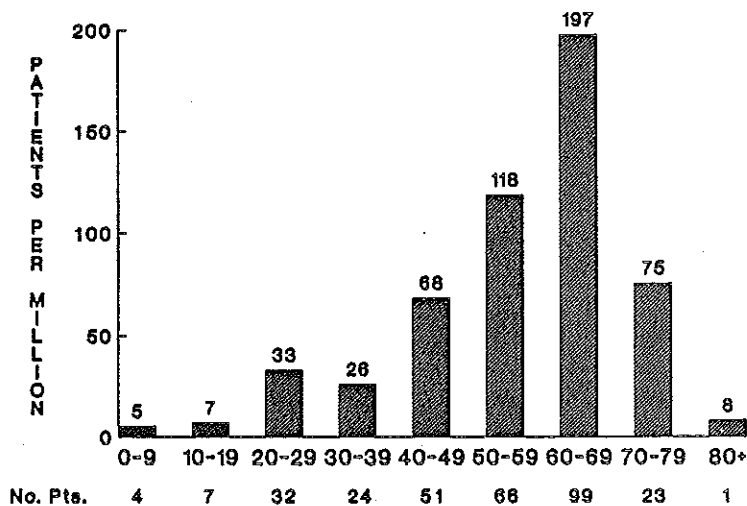
FUNCTIONING TRANSPLANT AND DIALYSIS



TRANSPLANT OPERATIONS

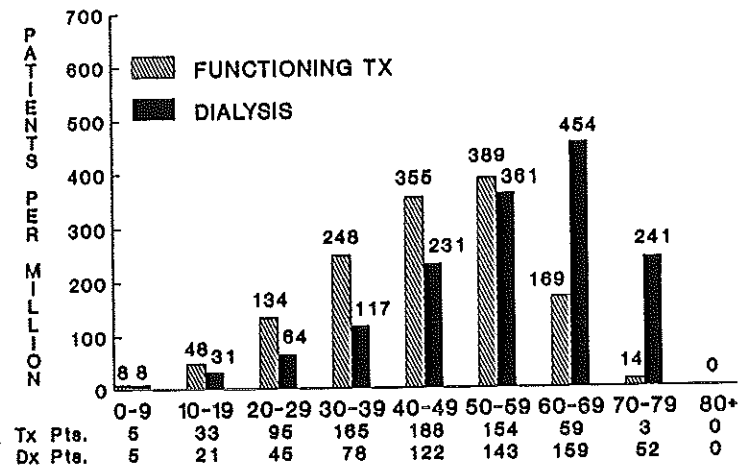


AGE OF NEW PATIENTS

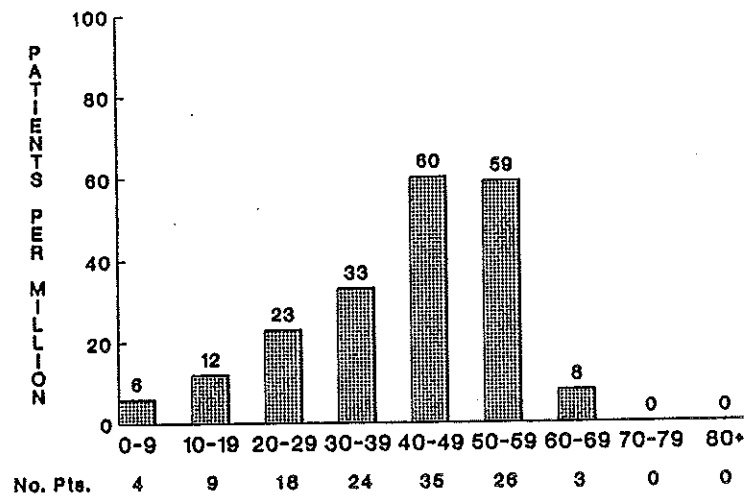


VICTORIA 1988

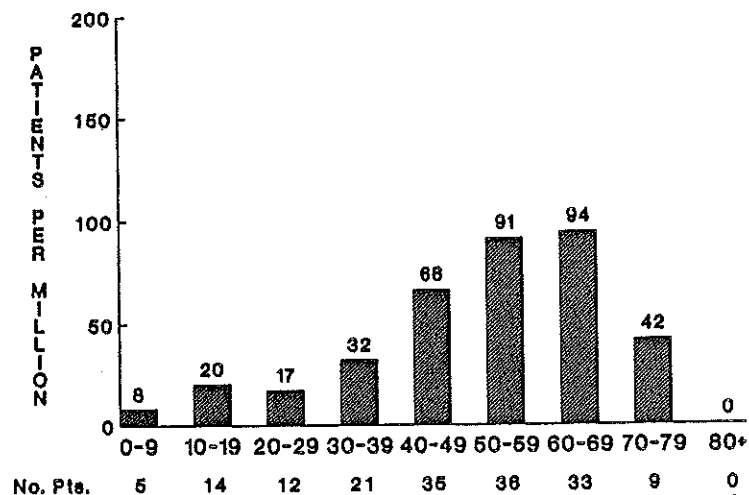
FUNCTIONING TRANSPLANT AND DIALYSIS



TRANSPLANT OPERATIONS

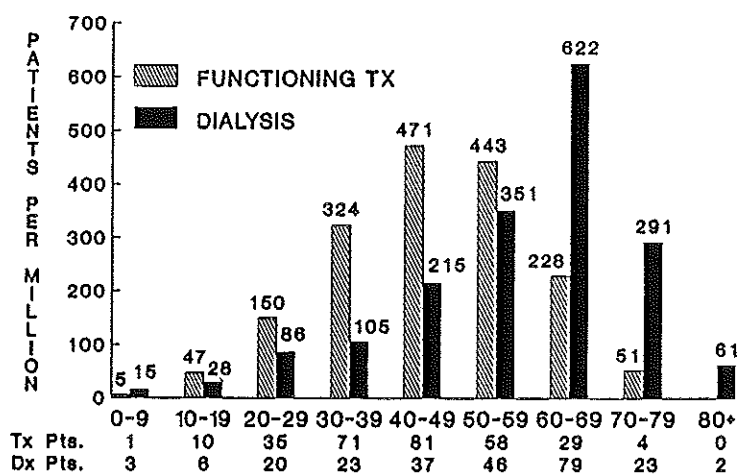


AGE OF NEW PATIENTS

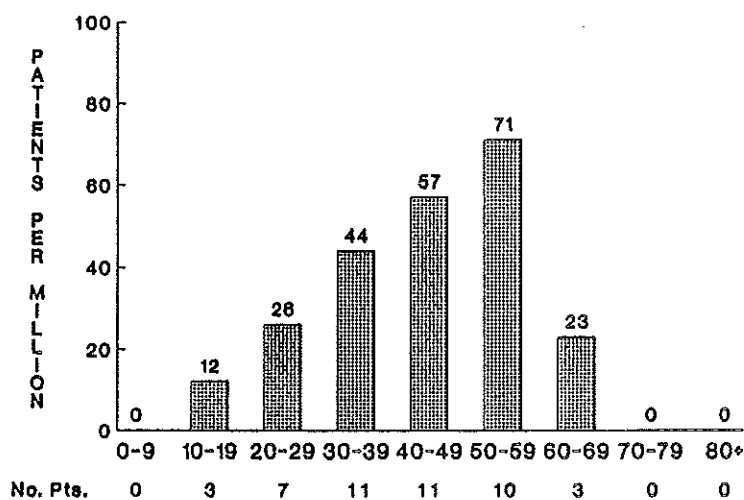


SOUTH AUSTRALIA 1988

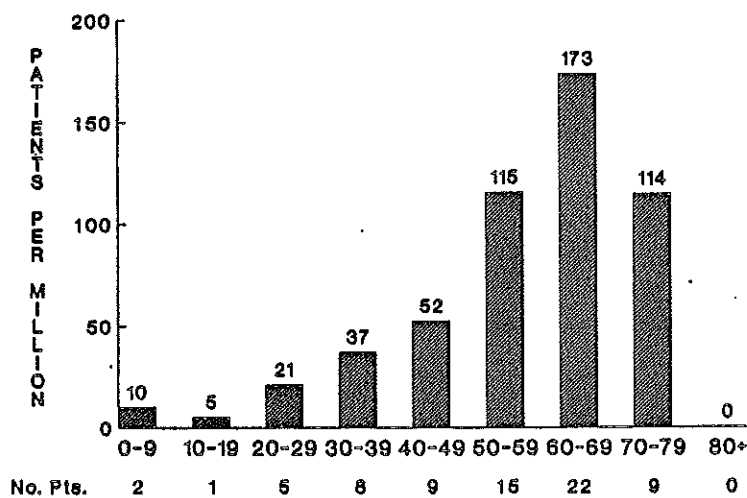
FUNCTIONING TRANSPLANT AND DIALYSIS



TRANSPLANT OPERATIONS

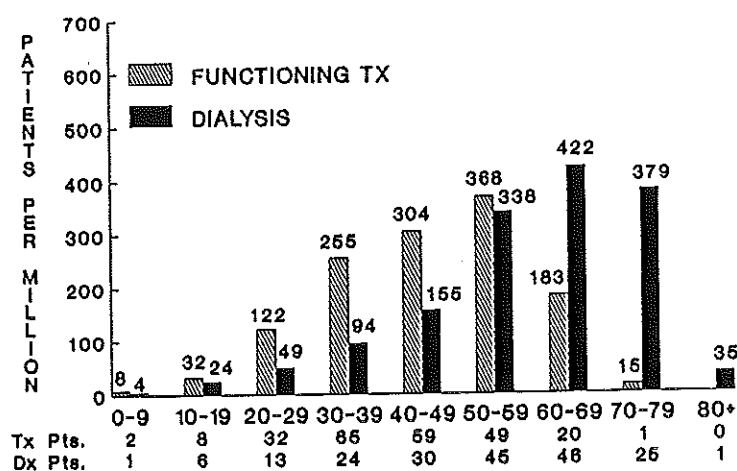


AGE OF NEW PATIENTS

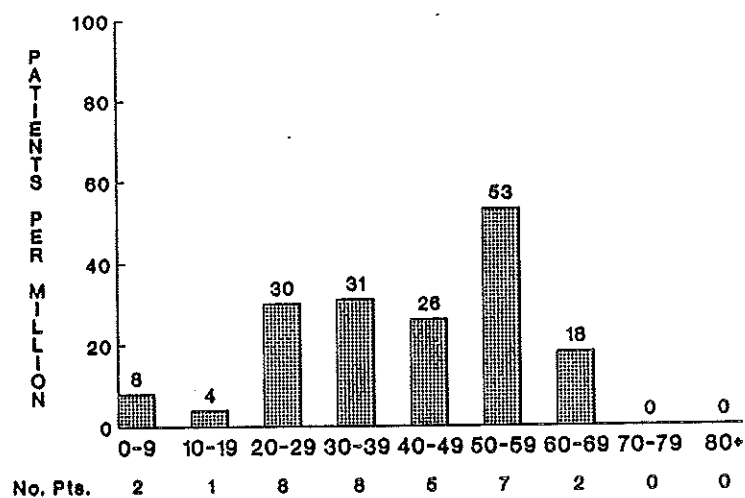


WESTERN AUSTRALIA 1988

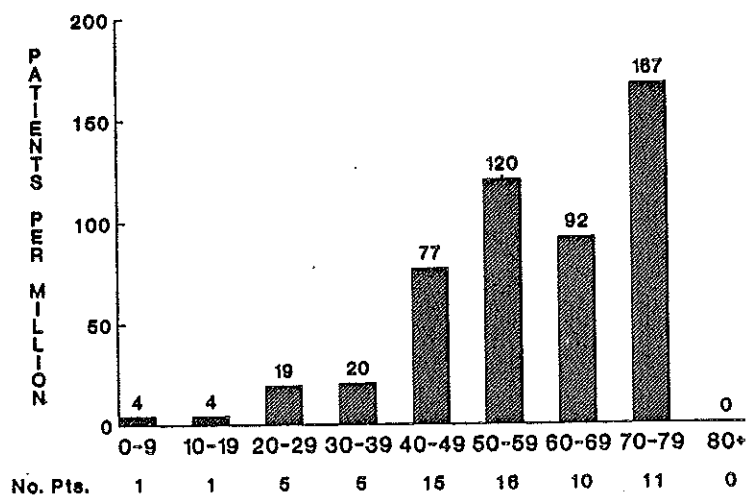
FUNCTIONING TRANSPLANT AND DIALYSIS



TRANSPLANT OPERATIONS

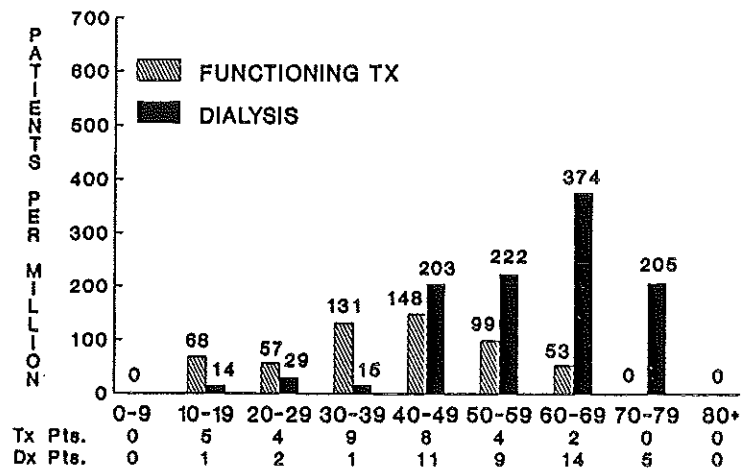


AGE OF NEW PATIENTS

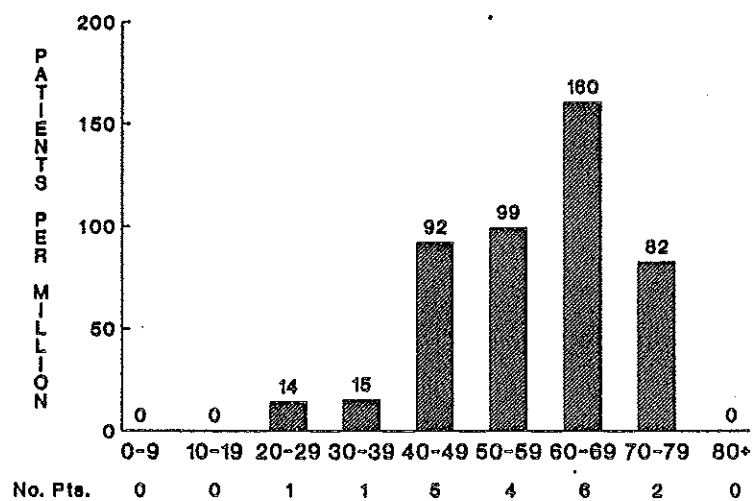


TASMANIA 1988

FUNCTIONING TRANSPLANT AND DIALYSIS

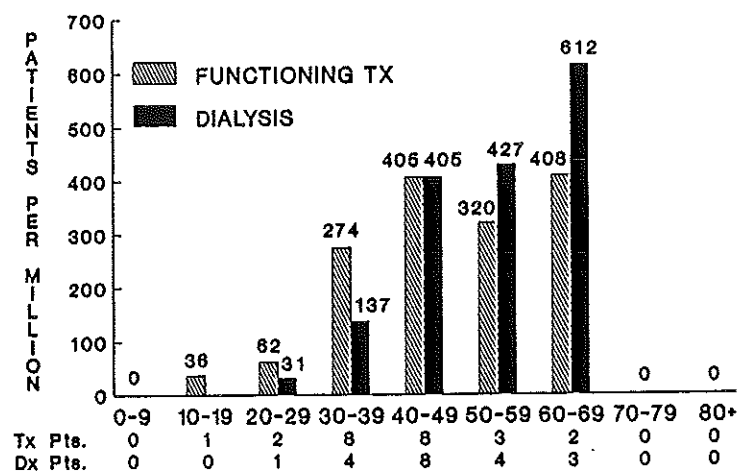


AGE OF NEW PATIENTS

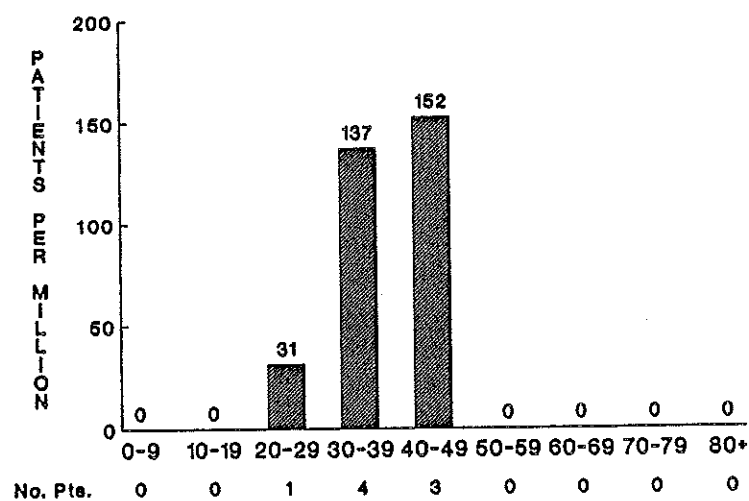


NORTHERN TERRITORY 1988

FUNCTIONING TRANSPLANT AND DIALYSIS



AGE OF NEW PATIENTS



SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988

AUSTRALIA

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	12	24	66	81	143	173	195	64	1	759
<u>PRIMARY RENAL DISEASE</u>										
GLOMERULONEPHRITIS	3	11	40	38	68	56	48	24	-	288
ANALGESIC NEPHROPATHY	-	-	-	-	12	38	37	4	-	91
POLYCYSTIC KIDNEY DISEASE	-	-	-	6	16	14	11	5	-	52
REFLUX NEPHROPATHY	1	5	11	12	7	4	4	3	-	47
HYPERTENSION	-	-	-	1	3	7	26	7	-	44
DIABETES	-	-	2	12	18	22	19	4	-	77
MISCELLANEOUS	8	8	9	6	11	20	28	4	-	94
UNCERTAIN	-	-	4	6	8	12	22	13	1	66
<u>PRIMARY TREATMENT</u>										
HOSPITAL IPD	10	9	8	12	20	33	51	25	-	168
HOSPITAL HD	2	11	50	52	97	103	108	23	1	447
SATELLITE IPD	-	-	-	-	-	-	-	1	-	1
SATELLITE HD	-	-	-	4	1	-	2	-	-	7
HOSPITAL CAPD	-	3	7	13	22	34	34	15	-	128
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	1	1	-	3	3	-	-	-	8
<u>TRANSPLANT OPERATIONS</u>										
CADAVER 1	7	19	36	69	73	90	36	1	-	331
CADAVER 2	1	1	13	12	20	6	3	-	-	56
CADAVER 3	-	2	3	3	2	1	-	-	-	11
CADAVER 4/5	-	-	-	-/1	-	2/-	-	-	-	2/1
TOTAL	8	22	52	85	95	99	39	1	-	401
LIVING DONOR 1	3	6	8	10	3	7	2	-	-	39
LIVING DONOR 2	-	1	3	1	1	-	-	-	-	6
LIVING DONOR 3	-	-	1	1	-	-	-	-	-	2
TOTAL	3	7	12	12	4	7	2	-	-	47
TOTAL TRANSPLANT OPERATIONS	11	29	64	97	99	106	41	1	-	448
<u>FUNCTIONING TRANSPLANTS 31.10.88</u>										
CADAVER 1	9	65	207	413	517	550	309	21	-	2091
CADAVER 2	2	8	54	63	92	76	42	1	-	338
CADAVER 3	-	3	7	11	5	12	-	-	-	38
CADAVER 4/5	-	1/-	-	3/1	-	2/-	-	-	-	6/1
TOTAL	11	77	268	491	614	640	351	22	-	2474
LIVING DONOR 1	8	44	68	103	45	23	7	-	-	298
LIVING DONOR 2	-	4	7	13	5	2	-	-	-	31
LIVING DONOR 3	-	-	2	4	3	-	-	-	-	9
TOTAL	8	48	77	120	53	25	7	-	-	338
TOTAL FUNCTIONING TRANSPLANTS	19	125	345	611	667	665	358	22	-	2812*
<u>PATIENTS DIALYSING 31.10.88</u>										
HOSPITAL IPD	1	-	2	1	2	2	5	4	-	17
HOSPITAL HD	(2)	(19)	(57)	(65)	(122)	(174)	(247)	(83)	(3)	(772)
SATELLITE IPD	-	-	-	-	-	-	1	1	-	2
SATELLITE HD	-	(7)	(43)	(51)	(73)	(124)	(110)	(18)	-	(426)
HOME IPD	1	6	1	1	1	5	4	1	-	19
HOME HD	-	(5)	(59)	(79)	(136)	(146)	(127)	(20)	-	(572)
HOSPITAL CAPD	1	1	2	2	3	4	14	7	1	33
HOME CAPD	8	30	36	60	124	147	246	105	1	757
TOTAL PATIENTS DIALYSING	13	68	197	259	461	602	754	239	5	2598
<u>DEATHS</u>										
HOSPITAL IPD	-	-	-	-	-	5	-	3	-	8
HOSPITAL HD	-	-	2	7	13	42	53	24	-	141
SATELLITE IPD	-	-	-	-	-	-	-	2	-	2
SATELLITE HD	-	-	3	1	4	5	10	2	-	25
HOME IPD	-	-	-	-	-	-	3	-	-	3
HOME HD	-	-	1	1	1	6	15	5	1	30
HOSPITAL CAPD	-	-	-	1	-	2	8	4	1	16
HOME CAPD	-	-	2	9	6	33	47	19	2	118
TOTAL DIALYSIS DEATHS	-	-	8	19	24	93	136	59	4	343
TOTAL TRANSPLANT DEATHS	-	1	4	12	11	30	25	4	-	87
TOTAL DEATHS	-	1	12	31	35	123	161	63	4	430

* By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988

AGE GROUP POPULATION RELATED (PATIENTS PER MILLION) AUSTRALIA

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	5	9	24	31	69	115	144	77	3	46
PRIMARY RENAL DISEASE										
GLOMERULONEPHRITIS	1	4	15	15	33	37	36	29	-	17
ANALGESIC NEPHROPATHY	-	-	-	-	6	25	27	5	-	6
POLYCYSTIC KIDNEY DISEASE	-	-	-	2	8	9	8	6	-	3
REFLUX NEPHROPATHY	<1	2	4	5	3	3	3	4	-	3
HYPERTENSION	-	-	-	<1	1	5	19	8	-	3
DIABETES	-	-	1	5	9	15	14	5	-	5
MISCELLANEOUS	3	3	3	2	5	13	21	5	-	6
UNCERTAIN	-	-	1	2	4	8	16	16	3	4
PRIMARY TREATMENT										
HOSPITAL IPD	4	3	3	5	10	22	38	30	-	10
HOSPITAL HD	1	4	18	20	47	69	80	28	3	27
SATELLITE IPD	-	-	-	-	-	-	-	1	-	<1
SATELLITE HD	-	-	-	2	<1	-	1	-	-	<1
HOSPITAL CAPD	-	1	3	5	11	23	25	18	-	8
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	<1	<1	-	1	2	-	-	-	<1
TRANSPLANT OPERATIONS										
CADAVER 1	3	7	13	27	35	60	27	1	-	20
CADAVER 2	<1	<1	5	5	10	4	2	-	-	3
CADAVER 3	-	1	1	1	1	1	-	-	-	1
CADAVER 4/5	-	-	-	-	-	1/-	-	-	-	<1/<1
TOTAL	3	8	19	33	46	66	29	1	-	24
LIVING DONOR										
1	1	2	3	4	1	5	1	-	-	2
2	-	<1	1	<1	<1	-	-	-	-	<1
3	-	-	<1	<1	-	-	-	-	-	<1
TOTAL	1	3	4	5	2	5	1	-	-	3
TOTAL TRANSPLANT OPERATIONS	5	11	24	37	48	71	30	1	-	27
FUNCTIONING TRANSPLANTS 31.10.88										
CADAVER 1	4	24	76	159	250	365	229	25	-	126
CADAVER 2	1	3	20	24	45	50	31	1	-	20
CADAVER 3	-	1	3	4	2	8	-	-	-	2
CADAVER 4/5	-	<1/-	-	1/<1	-	1/-	-	-	-	<1/<1
TOTAL	5	29	98	189	297	424	260	26	-	150
LIVING DONOR										
1	3	17	25	40	22	15	5	-	-	18
2	-	2	3	5	2	1	-	-	-	2
3	-	-	1	2	1	-	-	-	-	<1
TOTAL	3	18	28	46	26	17	5	-	-	20
TOTAL FUNCTIONING TRANSPLANTS	8	47	127	235	323	441	265	26	-	170*
PATIENTS DIALYSING 31.10.88										
HOSPITAL IPD	<1	-	1	<1	1	1	4	5	-	1
HOSPITAL HD	1	7	21	25	59	115	183	100	9	47
SATELLITE IPD	-	-	-	-	-	-	1	1	-	<1
SATELLITE HD	-	3	16	20	35	82	81	22	-	26
HOME IPD	<1	2	-	<1	-	50	3	1	-	1
HOME HD	-	2	22	30	66	97	94	24	-	35
HOSPITAL CAPD	<1	<1	-	1	1	3	10	8	3	2
HOME CAPD	3	11	13	23	60	97	182	126	3	46
TOTAL PATIENTS DIALYSING	5	26	72	100	223	399	558	287	15	157
DEATHS										
HOSPITAL IPD	-	-	-	-	-	3	-	4	-	<1
HOSPITAL HD	-	-	1	3	6	28	39	29	-	9
SATELLITE IPD	-	-	-	-	-	-	-	2	-	<1
SATELLITE HD	-	-	1	<1	2	3	7	2	-	2
HOME IPD	-	-	-	-	-	-	2	-	-	<1
HOME HD	-	-	<1	<1	<1	4	11	6	3	2
HOSPITAL CAPD	-	-	-	<1	-	1	6	5	3	1
HOME CAPD	-	-	1	3	3	22	35	23	6	7
TOTAL DIALYSIS DEATHS	-	-	3	7	12	62	101	71	12	21
TOTAL TRANSPLANT DEATHS	-	<1	1	5	5	20	19	5	-	5
TOTAL DEATHS	-	<1	4	12	17	82	119	76	12	26

* By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988

QUEENSLAND

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	-	1	10	18	25	36	25	10	-	125
PRIMARY RENAL DISEASE										
GLOMERULONEPHRITIS	-	-	7	8	13	12	8	2	-	50
ANALGESIC NEPHROPATHY	-	-	-	-	3	10	4	-	-	17
POLYCYSTIC KIDNEY DISEASE	-	-	-	2	2	2	2	-	-	8
REFLUX NEPHROPATHY	-	1	2	2	1	-	-	1	-	7
HYPERTENSION	-	-	-	-	1	2	2	1	-	6
DIABETES	-	-	-	2	2	6	2	-	-	12
MISCELLANEOUS	-	-	-	1	1	1	2	-	-	5
UNCERTAIN	-	-	1	3	2	3	5	6	-	20
PRIMARY TREATMENT										
HOSPITAL IPD	-	-	1	5	8	10	9	6	-	39
HOSPITAL HD	-	1	9	11	15	24	15	3	-	78
SATELLITE IPD	-	-	-	-	-	-	-	1	-	1
SATELLITE HD	-	-	-	1	1	-	-	-	-	2
HOSPITAL CAPD	-	-	-	1	1	1	1	-	-	4
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	-	-	-	-	1	-	-	-	1
TRANSPLANT OPERATIONS										
CADAVER 1	2	5	6	16	10	22	15	-	-	76
CADAVER 2	1	-	2	3	6	1	1	-	-	14
CADAVER 3	-	-	-	-	1	-	-	-	-	1
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	3	5	8	19	17	23	16	-	-	91
LIVING DONOR 1	-	-	-	1	-	1	-	-	-	2
LIVING DONOR 2	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 3	-	-	1	-	-	-	-	-	-	1
TOTAL	-	-	1	1	-	1	-	-	-	3
TOTAL TRANSPLANT OPERATIONS	3	5	9	20	17	24	16	-	-	94
FUNCTIONING TRANSPLANTS 31.10.88										
CADAVER 1	2	14	45	75	87	115	72	4	-	414
CADAVER 2	1	2	8	12	16	16	7	-	-	62
CADAVER 3	-	-	1	2	-	2	-	-	-	5
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	3	16	54	89	103	133	79	4	-	481
LIVING DONOR 1	1	1	1	5	3	1	-	-	-	12
LIVING DONOR 2	-	-	2	-	1	1	-	-	-	4
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	1	1	3	5	4	2	-	-	-	16
TOTAL FUNCTIONING TRANSPLANTS	4	17	57	94	107	135	79	4	-	497*
PATIENTS DIALYSING 31.10.88										
HOSPITAL IPD	-	-	1	-	2	-	1	1	-	5
HOSPITAL HD	-	1	15	14	21	42	52	15	-	160
SATELLITE IPD	-	-	-	-	-	-	-	1	-	1
SATELLITE HD	-	2	4	5	5	13	22	6	-	57
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	1	3	9	13	10	5	-	-	41
HOSPITAL CAPD	-	-	-	-	1	1	1	1	-	4
HOME CAPD	-	3	7	9	18	19	42	14	-	112
TOTAL PATIENTS DIALYSING	-	7	30	37	60	85	123	38	-	380
DEATHS										
HOSPITAL IPD	-	-	-	-	-	2	-	-	-	2
HOSPITAL HD	-	-	-	2	2	9	9	2	-	24
SATELLITE IPD	-	-	-	-	-	-	-	1	-	1
SATELLITE HD	-	-	-	-	-	-	1	-	-	1
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	-	-	-	-	1	-	-	1
HOSPITAL CAPD	-	-	-	-	-	-	1	1	1	3
HOME CAPD	-	-	-	2	1	11	10	3	-	27
TOTAL DIALYSIS DEATHS	-	-	-	4	3	22	22	7	1	59
TOTAL TRANSPLANT DEATHS	-	-	-	1	3	9	9	-	-	22
TOTAL DEATHS	-	-	-	5	6	31	31	7	1	81

* By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988
AGE GROUP POPULATION RELATED (PATIENTS PER MILLION) QUEENSLAND

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	-	2	22	43	73	150	115	74	-	46
PRIMARY RENAL DISEASE										
GLOMERULONEPHRITIS	-	-	16	19	38	50	37	15	-	18
ANALGESIC NEPHROPATHY	-	-	-	-	9	42	18	-	-	6
POLYCYSTIC KIDNEY DISEASE	-	-	-	5	6	8	9	-	-	3
REFLUX NEPHROPATHY	-	2	4	5	3	-	-	7	-	3
HYPERTENSION	-	-	-	-	3	8	9	7	-	2
DIABETES	-	-	-	5	6	25	9	-	-	4
MISCELLANEOUS	-	-	-	2	3	4	9	-	-	2
UNCERTAIN	-	-	2	7	6	13	23	44	-	7
PRIMARY TREATMENT										
HOSPITAL IPD	-	-	2	12	23	42	42	44	-	14
HOSPITAL HD	-	2	20	26	44	100	69	22	-	28
SATELLITE IPD	-	-	-	-	-	-	-	7	-	<1
SATELLITE HD	-	-	-	2	3	4	5	-	-	1
HOSPITAL CAPD	-	-	-	2	3	-	-	-	-	-
HOME CAPD	-	-	-	-	-	-	-	-	-	<1
TRANSPLANTED (NO DIALYSIS)	-	-	-	-	-	4	-	-	-	-
TRANSPLANT OPERATIONS										
CADAVER 1	5	11	13	38	29	92	69	-	-	29
CADAVER 2	2	-	4	7	18	4	5	-	-	5
CADAVER 3	-	-	-	-	3	-	-	-	-	<1
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	7	11	18	45	50	96	74	-	-	33
LIVING DONOR 1	-	-	-	2	-	4	-	-	-	1
LIVING DONOR 2	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 3	-	-	2	-	-	-	-	-	-	<1
TOTAL	-	-	2	2	-	4	-	-	-	1
TOTAL TRANSPLANT OPERATIONS	7	11	20	47	50	100	74	-	-	34
FUNCTIONING TRANSPLANTS 31.10.88										
CADAVER 1	5	30	100	178	254	481	331	30	-	151
CADAVER 2	2	4	18	28	47	67	32	-	-	23
CADAVER 3	-	-	2	5	-	8	-	-	-	2
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	7	35	120	211	301	556	364	30	-	176
LIVING DONOR 1	2	2	2	12	9	4	-	-	-	4
LIVING DONOR 2	-	-	4	-	3	4	-	-	-	1
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	2	2	7	12	12	8	-	-	-	6
TOTAL FUNCTIONING TRANSPLANTS	10	37	126	223	313	565	364	30	-	181*
PATIENTS DIALYSING 31.10.88										
HOSPITAL IPD	-	-	2	-	6	-	5	7	-	2
HOSPITAL HD	-	2	33	33	61	176	240	111	-	58
SATELLITE IPD	-	-	-	-	-	-	-	7	-	<1
SATELLITE HD	-	4	9	12	15	54	101	44	-	21
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	2	7	21	38	42	23	-	-	15
HOSPITAL CAPD	-	-	-	-	3	4	5	7	-	1
HOME CAPD	-	6	16	21	53	79	194	104	-	41
TOTAL PATIENTS DIALYSING	-	15	67	88	175	356	567	281	-	139
DEATHS										
HOSPITAL IPD	-	-	-	-	-	8	-	-	-	1
HOSPITAL HD	-	-	-	5	6	38	41	15	-	9
SATELLITE IPD	-	-	-	-	-	-	-	7	-	<1
SATELLITE HD	-	-	-	-	-	-	5	-	-	<1
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	-	-	-	-	5	-	-	<1
HOSPITAL CAPD	-	-	-	-	-	-	5	7	18	1
HOME CAPD	-	-	-	5	3	46	46	22	-	10
TOTAL DIALYSIS DEATHS	-	-	-	9	9	92	101	52	18	22
TOTAL TRANSPLANT DEATHS	-	-	-	2	9	38	41	-	-	8
TOTAL DEATHS	-	-	-	12	18	130	143	52	18	30

* By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988

NEW SOUTH WALES

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	4	7	32	24	51	66	99	23	1	307
PRIMARY RENAL DISEASE										
GLOMERULONEPHRITIS	1	5	18	11	18	14	21	6	-	94
ANALGESIC NEPHROPATHY	-	-	-	-	9	21	24	2	-	56
POLYCYSTIC KIDNEY DISEASE	-	-	-	1	7	6	3	4	-	21
REFLUX NEPHROPATHY	-	1	5	2	2	1	3	2	-	16
HYPERTENSION	-	-	-	1	1	2	13	2	-	19
DIABETES	-	-	1	3	7	7	7	2	-	27
MISCELLANEOUS	3	1	5	3	5	10	19	2	-	48
UNCERTAIN	-	-	3	3	2	5	9	3	1	26
PRIMARY TREATMENT										
HOSPITAL IPD	4	2	6	4	5	16	32	12	-	81
HOSPITAL HD	-	4	23	19	34	38	48	6	1	173
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	2	-	-	2
HOSPITAL CAPD	-	1	2	1	11	11	17	5	-	48
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	-	1	-	1	1	-	-	-	3
TRANSPLANT OPERATIONS										
CADAVER 1	1	7	7	22	25	33	15	1	-	111
CADAVER 2	-	-	5	3	4	3	1	-	-	16
CADAVER 3	-	-	2	2	1	-	-	-	-	5
CADAVER 4/5	-	-	-	-/1	-	1/-	-	-	-	1/1
TOTAL	1	7	14	28	30	37	16	1	-	134
LIVING DONOR 1	1	4	5	5	-	2	1	-	-	18
LIVING DONOR 2	-	-	-	2	1	1	-	-	-	4
LIVING DONOR 3	-	-	-	1	-	-	-	-	-	1
TOTAL	1	4	5	8	1	3	1	-	-	23
TOTAL TRANSPLANT OPERATIONS	2	11	19	36	31	40	17	1	-	157
FUNCTIONING TRANSPLANTS 31.10.88										
CADAVER 1	2	18	65	137	173	216	145	9	-	765
CADAVER 2	-	2	14	11	22	26	18	1	-	94
CADAVER 3	-	-	3	4	2	7	-	-	-	16
CADAVER 4/5	-	-	-	3/1	-	1	-	-	-	4/1
TOTAL	2	20	82	156	197	250	163	10	-	880
LIVING DONOR 1	5	29	33	37	15	11	4	-	-	134
LIVING DONOR 2	-	2	4	5	2	1	-	-	-	14
LIVING DONOR 3	-	-	1	1	2	-	-	-	-	4
TOTAL	5	31	38	43	19	12	4	-	-	152
TOTAL FUNCTIONING TRANSPLANTS	7	51	120	199	216	262	167	10	-	1032*
PATIENTS DIALYSING 31.10.88										
HOSPITAL IPD	-	-	1	1	-	-	2	2	-	6
HOSPITAL HD	-	7	20	26	57	86	96	26	1	319
SATELLITE IPD	-	-	-	-	-	-	1	-	-	1
SATELLITE HD	-	2	17	16	22	42	35	4	-	138
HOME IPD	-	1	-	1	-	4	3	1	-	10
HOME HD	-	3	36	33	69	78	85	14	-	318
HOSPITAL CAPD	-	1	-	-	1	2	10	2	-	16
HOME CAPD	4	13	12	16	44	58	97	47	1	292
TOTAL PATIENTS DIALYSING	4	27	86	93	193	270	329	96	2	1100
DEATHS										
HOSPITAL IPD	-	-	-	-	-	2	-	2	-	4
HOSPITAL HD	-	-	1	4	6	17	23	7	-	58
SATELLITE IPD	-	-	-	-	-	-	-	1	-	1
SATELLITE HD	-	-	-	-	3	3	5	1	-	12
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	-	-	-	3	7	3	1	14
HOSPITAL CAPD	-	-	-	-	-	-	4	1	-	5
HOME CAPD	-	-	1	5	2	8	22	10	2	50
TOTAL DIALYSIS DEATHS	-	-	2	9	11	33	61	25	3	144
TOTAL TRANSPLANT DEATHS	-	-	2	4	4	8	12	2	-	32
TOTAL DEATHS	-	-	4	13	15	41	73	27	3	176

* By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988

AGE GROUP POPULATION RELATED (PATIENTS PER MILLION) NEW SOUTH WALES

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	5	7	33	26	68	118	197	75	8	51
PRIMARY RENAL DISEASE										
GLOMERULONEPHRITIS	1	5	19	12	24	25	42	20	-	16
ANALGESIC NEPHROPATHY	-	-	-	-	12	38	48	7	-	9
POLYCYSTIC KIDNEY DISEASE	-	-	-	1	9	11	6	13	-	4
REFLUX NEPHROPATHY	-	1	5	2	3	2	6	7	-	3
HYPERTENSION	-	-	-	1	1	4	26	7	-	3
DIABETES	-	-	1	3	9	13	14	7	-	5
MISCELLANEOUS	3	1	5	3	7	18	38	7	-	8
UNCERTAIN	-	-	3	3	3	9	18	10	8	4
PRIMARY TREATMENT										
HOSPITAL IPD	5	2	6	4	7	29	64	39	-	14
HOSPITAL HD	-	4	24	20	45	68	95	20	8	29
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	4	-	-	<1
HOSPITAL CAPD	-	1	2	1	15	20	34	16	-	8
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	-	1	-	1	2	-	-	-	1
TRANSPLANT OPERATIONS										
CADAVER 1	1	7	7	23	33	59	29	3	-	19
CADAVER 2	-	-	5	3	5	5	2	-	-	3
CADAVER 3	-	-	2	2	1	-	-	-	-	1
CADAVER 4/5	-	-	-	-/1	-	2/-	-	-	-	<1/<1
TOTAL	1	7	14	30	40	66	32	3	-	22
LIVING DONOR 1	1	4	5	5	-	4	2	-	-	3
LIVING DONOR 2	-	-	-	2	1	2	-	-	-	1
LIVING DONOR 3	-	-	-	1	-	-	-	-	-	<1
TOTAL	1	4	5	9	1	5	2	-	-	4
TOTAL TRANSPLANT OPERATIONS	2	12	20	38	41	72	34	3	-	26
FUNCTIONING TRANSPLANTS 31.10.88										
CADAVER 1	2	19	67	146	229	388	288	29	-	128
CADAVER 2	-	2	14	12	29	47	36	3	-	16
CADAVER 3	-	-	3	4	3	13	-	-	-	3
CADAVER 4/5	-	-	-	3/1	-	2/-	-	-	-	<1/1
TOTAL	2	21	85	166	261	449	324	33	-	147
LIVING DONOR 1	6	31	34	39	20	20	8	-	-	22
LIVING DONOR 2	-	2	4	5	3	2	-	-	-	2
LIVING DONOR 3	-	-	1	1	3	-	-	-	-	1
TOTAL	6	33	39	46	25	22	8	-	-	25
TOTAL FUNCTIONING TRANSPLANTS	8	54	124	212	286	470	332	33	-	173*
PATIENTS DIALYSING 31.10.88										
HOSPITAL IPD	-	-	1	1	-	-	4	7	-	1
HOSPITAL HD	-	7	21	28	76	154	191	85	8	53
SATELLITE IPD	-	-	-	-	-	-	2	-	-	<1
SATELLITE HD	-	2	18	17	29	75	70	13	-	23
HOME IPD	-	1	-	1	-	7	6	3	-	2
HOME HD	-	3	37	35	92	140	169	46	-	53
HOSPITAL CAPD	-	1	-	-	1	4	20	7	-	3
HOME CAPD	5	14	12	17	58	104	193	153	8	49
TOTAL PATIENTS DIALYSING	5	29	89	99	256	485	654	313	16	184
DEATHS										
HOSPITAL IPD	-	-	-	-	-	4	-	7	-	1
HOSPITAL HD	-	-	1	4	8	31	46	23	-	10
SATELLITE IPD	-	-	-	-	-	-	-	3	-	<1
SATELLITE HD	-	-	-	-	4	5	10	3	-	2
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	-	-	-	5	14	10	8	2
HOSPITAL CAPD	-	-	-	-	-	-	8	3	-	1
HOME CAPD	-	-	1	5	3	14	44	33	16	8
TOTAL DIALYSIS DEATHS	-	-	2	10	15	59	121	81	24	24
TOTAL TRANSPLANT DEATHS	-	-	2	4	5	14	24	7	-	5
TOTAL DEATHS	-	-	4	14	20	74	145	88	24	29

* By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988

VICTORIA

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	5	14	12	21	35	36	33	9	-	165
PRIMARY RENAL DISEASE										
GLOMERULONEPHRITIS	1	4	7	7	15	18	9	7	-	68
ANALGESIC NEPHROPATHY	-	-	-	-	-	2	1	1	-	4
POLYCYSTIC KIDNEY DISEASE	-	-	-	1	4	1	4	-	-	10
REFLUX NEPHROPATHY	1	3	4	7	2	2	-	-	-	19
HYPERTENSION	-	-	-	-	1	1	4	-	-	6
DIABETES	-	-	-	5	8	3	8	-	-	24
MISCELLANEOUS	3	7	1	1	2	7	3	1	-	25
UNCERTAIN	-	-	-	-	3	2	4	-	-	9
PRIMARY TREATMENT										
HOSPITAL IPD	5	6	-	-	5	2	4	1	-	23
HOSPITAL HD	-	5	8	11	22	16	19	3	-	84
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	2	4	10	6	17	10	5	-	54
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	1	-	-	2	1	-	-	-	4
TRANSPLANT OPERATIONS										
CADAVER 1	4	5	11	15	24	19	3	-	-	81
CADAVER 2	-	-	4	4	9	2	-	-	-	19
CADAVER 3	-	2	1	1	-	1	-	-	-	5
CADAVER 4	-	-	-	-	-	1	-	-	-	1
TOTAL	4	7	16	20	33	23	3	-	-	106
LIVING DONOR 1	-	1	2	3	2	3	-	-	-	11
LIVING DONOR 2	-	1	-	1	-	-	-	-	-	2
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	-	2	2	4	2	3	-	-	-	13
TOTAL TRANSPLANT OPERATIONS	4	9	18	24	35	26	3	-	-	119*
FUNCTIONING TRANSPLANTS 31.10.88										
CADAVER 1	4	22	55	110	136	119	48	3	-	497
CADAVER 2	1	1	22	16	31	25	11	-	-	107
CADAVER 3	-	3	3	4	2	2	-	-	-	14
CADAVER 4	-	1	-	-	-	1	-	-	-	2
TOTAL	5	27	80	130	169	147	59	3	-	620
LIVING DONOR 1	-	5	14	30	18	7	-	-	-	74
LIVING DONOR 2	-	1	-	5	1	-	-	-	-	7
LIVING DONOR 3	-	-	1	-	-	-	-	-	-	1
TOTAL	-	6	15	35	19	7	-	-	-	82
TOTAL FUNCTIONING TRANSPLANTS	5	33	95	165	188	154	59	3	-	702*
PATIENTS DIALYSING 31.10.88										
HOSPITAL IPD	1	-	-	-	-	2	1	-	-	4
HOSPITAL HD	-	6	10	13	22	20	40	12	-	123
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	1	10	11	18	34	22	7	-	103
HOME IPD	-	2	-	1	1	1	-	-	-	5
HOME HD	-	1	15	25	38	39	30	5	-	153
HOSPITAL CAPD	-	-	-	-	-	-	2	-	-	2
HOME CAPD	4	11	10	28	43	47	64	28	-	235
TOTAL PATIENTS DIALYSING	5	21	45	78	122	143	159	52	-	625
DEATHS										
HOSPITAL IPD	-	-	-	-	-	1	-	1	-	2
HOSPITAL HD	-	-	-	-	2	7	10	6	-	25
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	1	2	1	-	4
HOME IPD	-	-	-	-	-	-	3	-	-	3
HOME HD	-	-	1	1	1	2	7	1	-	13
HOSPITAL CAPD	-	-	-	1	-	1	1	1	-	4
HOME CAPD	-	-	-	1	3	9	10	2	-	25
TOTAL DIALYSIS DEATHS	-	-	1	3	6	21	33	12	-	76
TOTAL TRANSPLANT DEATHS	-	1	1	4	3	6	1	1	-	17
TOTAL DEATHS	-	1	2	7	9	27	34	13	-	93

* Includes Tasmanian residents transplanted in Victoria.

* By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988

AGE GROUP POPULATION RELATED (PATIENTS PER MILLION) VICTORIA

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	8	20	17	32	66	91	94	42	-	39
PRIMARY RENAL DISEASE										
GLOMERULONEPHRITIS	2	6	10	11	28	45	26	32	-	16
ANALGESIC NEPHROPATHY	-	-	-	-	-	5	3	5	-	1
POLYCYSTIC KIDNEY DISEASE	-	-	-	2	8	3	11	-	-	2
REFLUX NEPHROPATHY	2	4	6	11	4	5	-	-	-	4
HYPERTENSION	-	-	-	-	2	3	11	-	-	1
DIABETES	-	-	-	6	15	8	23	-	-	6
MISCELLANEOUS	5	10	1	2	4	18	9	5	-	6
UNCERTAIN	-	-	-	-	6	3	11	-	-	2
PRIMARY TREATMENT										
HOSPITAL IPD	8	9	-	-	9	3	11	5	-	5
HOSPITAL HD	-	7	11	17	42	40	54	14	-	20
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	3	6	15	11	43	29	23	-	13
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	1	-	-	4	3	-	-	-	1
TRANSPLANT OPERATIONS										
CADAVER 1	6	7	14	20	41	43	8	-	-	17
CADAVER 2	-	-	5	5	15	5	-	-	-	4
CADAVER 3	-	3	1	1	-	2	-	-	-	1
CADAVER 4	-	-	-	-	-	2	-	-	-	<1
TOTAL	6	9	21	27	57	53	8	-	-	23
LIVING DONOR 1	-	1	3	4	3	7	-	-	-	2
LIVING DONOR 2	-	1	-	1	-	-	-	-	-	<1
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	-	3	3	5	3	7	-	-	-	3
TOTAL TRANSPLANT OPERATIONS	6	12	23	33	60	59	8	-	-	25 ^x
FUNCTIONING TRANSPLANTS 31.10.88										
CADAVER 1	7	32	78	165	257	301	137	14	-	117
CADAVER 2	2	1	31	24	59	63	31	-	-	25
CADAVER 3	-	4	4	6	4	5	-	-	-	3
CADAVER 4	-	1	-	-	-	3	-	-	-	<1
TOTAL	8	39	113	195	319	371	169	14	-	146
LIVING DONOR 1	-	7	20	45	34	18	-	-	-	17
LIVING DONOR 2	-	1	-	8	2	-	-	-	-	2
LIVING DONOR 3	-	-	1	-	-	-	-	-	-	<1
TOTAL	-	9	21	53	36	18	-	-	-	19
TOTAL FUNCTIONING TRANSPLANTS	8	48	134	248	355	389	169	14	-	165 [*]
PATIENTS DIALYSING 31.10.88										
HOSPITAL IPD	2	-	-	-	-	5	3	-	-	1
HOSPITAL HD	-	9	14	20	42	51	114	56	-	29
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	1	14	17	34	86	63	32	-	24
HOME IPD	-	3	-	2	2	3	-	-	-	1
HOME HD	-	1	21	38	72	98	86	23	-	36
HOSPITAL CAPD	-	-	-	-	-	-	6	-	-	<1
HOME CAPD	7	16	14	42	81	119	183	130	-	55
TOTAL PATIENTS DIALYSING	8	31	64	117	231	361	454	241	-	147
DEATHS										
HOSPITAL IPD	-	-	-	-	-	3	-	5	-	<1
HOSPITAL HD	-	-	-	-	4	18	29	28	-	6
SATELLITE IPD	-	-	-	-	-	-	6	5	-	1
SATELLITE HD	-	-	-	-	-	3	9	-	-	1
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	1	2	2	5	20	5	-	3
HOSPITAL CAPD	-	-	-	2	-	3	3	5	-	1
HOME CAPD	-	-	-	2	6	23	29	9	-	6
TOTAL DIALYSIS DEATHS	-	-	1	5	11	53	94	56	-	18
TOTAL TRANSPLANT DEATHS	-	1	1	6	6	15	3	5	-	4
TOTAL DEATHS	-	1	3	11	17	68	97	60	-	22

^x Per million population includes Tasmania.

^{*} By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988

SOUTH AUSTRALIA

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	2	1	5	8	9	15	22	9	-	71
PRIMARY RENAL DISEASE										
GLOMERULONEPHRITIS	-	1	3	5	7	3	5	3	-	27
ANALGESIC NEPHROPATHY	-	-	-	-	-	-	5	-	-	5
POLYCYSTIC KIDNEY DISEASE	-	-	-	2	-	4	2	1	-	9
REFLUX NEPHROPATHY	-	-	-	-	-	-	-	-	-	-
HYPERTENSION	-	-	-	-	-	1	5	2	-	8
DIABETES	-	-	1	-	-	4	2	-	-	7
MISCELLANEOUS	2	-	1	1	2	1	2	1	-	10
UNCERTAIN	-	-	-	-	-	2	1	2	-	5
PRIMARY TREATMENT										
HOSPITAL IPD	-	1	-	-	-	2	3	2	-	8
HOSPITAL HD	2	-	4	7	8	12	17	5	-	55
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	-	1	1	1	1	2	2	-	8
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	-	-	-	-	-	-	-	-	-
TRANSPLANT OPERATIONS										
CADAVER 1	-	2	5	10	9	9	1	-	-	36
CADAVER 2	-	-	1	-	1	-	1	-	-	3
CADAVER 3	-	-	-	-	-	-	-	-	-	-
CADAVER 4/5	-	-	-	-	-	-	-	-	-	-
TOTAL	-	2	6	10	10	9	2	-	-	39
LIVING DONOR 1	-	1	1	1	1	1	1	-	-	6
LIVING DONOR 2	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	-	1	1	1	1	1	1	-	-	6
TOTAL TRANSPLANT OPERATIONS	-	3	7	11	11	10	3	-	-	45 ^x
FUNCTIONING TRANSPLANTS 31.10.88										
CADAVER 1	-	3	18	39	62	52	25	4	-	203
CADAVER 2	-	1	6	12	14	4	2	-	-	39
CADAVER 3	-	-	-	-	1	1	-	-	-	2
CADAVER 4/5	-	-	-	-	-	-	-	-	-	-
TOTAL	-	4	24	51	77	57	27	4	-	244
LIVING DONOR 1	1	6	11	15	2	1	2	-	-	38
LIVING DONOR 2	-	-	-	3	1	-	-	-	-	4
LIVING DONOR 3	-	-	-	2	1	-	-	-	-	3
TOTAL	1	6	11	20	4	1	2	-	-	45
TOTAL FUNCTIONING TRANSPLANTS	1	10	35	71	81	58	29	4	-	289 [*]
PATIENTS DIALYSING 31.10.88										
HOSPITAL IPD	-	-	-	-	-	-	-	-	-	-
HOSPITAL HD	2	3	6	3	7	10	35	11	2	79
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	2	9	11	19	21	17	-	-	79
HOME IPD	1	1	-	-	-	-	-	-	-	2
HOME HD	-	-	2	7	7	12	5	-	-	33
HOSPITAL CAPD	-	-	-	1	-	-	-	2	-	3
HOME CAPD	-	-	3	1	4	3	22	10	-	43
TOTAL PATIENTS DIALYSING	3	6	20	23	37	46	79	23	2	239
DEATHS										
HOSPITAL IPD	-	-	-	-	-	-	-	-	-	-
HOSPITAL HD	-	-	1	1	-	5	5	4	-	16
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	2	-	-	1	2	-	-	5
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	-	-	-	-	-	1	-	-	1
HOME CAPD	-	-	-	-	-	2	5	3	-	10
TOTAL DIALYSIS DEATHS	-	-	3	1	-	8	13	7	-	32
TOTAL TRANSPLANT DEATHS	-	-	-	2	3	2	1	-	-	8
TOTAL DEATHS	-	-	3	3	3	10	14	7	-	40

^x Includes Northern Territory residents transplanted in South Australia.^{*} By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988

AGE GROUP POPULATION RELATED (PATIENTS PER MILLION) SOUTH AUSTRALIA

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	10	5	21	37	52	115	173	114	-	51
PRIMARY RENAL DISEASE										
GLOMERULONEPHRITIS	-	5	13	23	41	23	39	38	-	19
ANALGESIC NEPHROPATHY	-	-	-	-	-	-	39	-	-	4
POLYCYSTIC KIDNEY DISEASE	-	-	-	9	-	31	16	13	-	6
REFLUX NEPHROPATHY	-	-	-	-	-	-	-	-	-	-
HYPERTENSION	-	-	-	-	-	8	39	25	-	6
DIABETES	-	-	4	-	-	31	16	-	-	5
MISCELLANEOUS	10	-	4	5	12	8	16	13	-	7
UNCERTAIN	-	-	-	-	-	15	8	25	-	4
PRIMARY TREATMENT										
HOSPITAL IPD	-	5	-	-	-	15	24	25	-	6
HOSPITAL HD	10	-	17	32	47	92	134	63	-	39
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	-	4	5	6	8	16	25	-	6
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	-	-	-	-	-	-	-	-	-
TRANSPLANT OPERATIONS										
CADAVER 1	-	8	19	40	47	64	8	-	-	23
CADAVER 2	-	-	4	-	5	-	8	-	-	2
CADAVER 3	-	-	-	-	-	-	-	-	-	-
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	-	8	23	40	52	64	15	-	-	25
LIVING DONOR 1	-	4	4	4	5	7	8	-	-	4
LIVING DONOR 2	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	-	4	4	4	5	7	8	-	-	4
TOTAL TRANSPLANT OPERATIONS	-	12	26	44	57	71	23	-	-	29 ^x
FUNCTIONING TRANSPLANTS 31.10.88										
CADAVER 1	-	14	77	178	360	397	197	51	-	145
CADAVER 2	-	5	26	55	81	31	16	-	-	28
CADAVER 3	-	-	-	-	6	8	-	-	-	1
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	-	19	103	233	448	435	213	51	-	174
LIVING DONOR 1	5	28	47	68	12	8	16	-	-	27
LIVING DONOR 2	-	-	-	14	6	-	-	-	-	3
LIVING DONOR 3	-	-	-	9	6	-	-	-	-	2
TOTAL	5	28	47	91	23	8	16	-	-	32
TOTAL FUNCTIONING TRANSPLANTS	5	47	150	324	471	443	228	51	-	206 [*]
PATIENTS DIALYSING 31.10.88										
HOSPITAL IPD	-	-	-	-	-	-	-	-	-	-
HOSPITAL HD	10	14	26	14	41	76	276	139	61	56
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	9	39	50	110	160	134	-	-	56
HOME IPD	5	5	-	-	-	-	-	-	-	1
HOME HD	-	-	9	32	41	92	39	-	-	24
HOSPITAL CAPD	-	-	-	5	-	-	-	25	-	2
HOME CAPD	-	-	13	5	23	23	173	127	-	31
TOTAL PATIENTS DIALYSING	15	28	86	105	215	351	622	291	61	171
DEATHS										
HOSPITAL IPD	-	-	-	-	-	-	-	-	-	-
HOSPITAL HD	-	-	4	5	-	38	39	51	-	11
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	9	-	-	8	16	-	-	4
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	-	-	-	-	-	8	-	-	1
HOME CAPD	-	-	-	-	-	15	39	38	-	7
TOTAL DIALYSIS DEATHS	-	-	13	5	-	61	102	89	-	23
TOTAL TRANSPLANT DEATHS	-	-	-	9	17	15	8	-	-	6
TOTAL DEATHS	-	-	13	14	17	76	110	89	-	29

^x Per million population includes Northern Territory.^{*} By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988

WESTERN AUSTRALIA

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	1	1	5	5	15	16	10	11	-	64
PRIMARY RENAL DISEASE										
GLOMERULONEPHRITIS	1	1	4	4	11	7	4	6	-	38
ANALGESIC NEPHROPATHY	-	-	-	-	-	5	3	-	-	8
POLYCYSTIC KIDNEY DISEASE	-	-	-	-	3	1	-	-	-	4
REFLUX NEPHROPATHY	-	-	-	-	1	-	-	-	-	1
HYPERTENSION	-	-	-	-	-	-	2	2	-	4
DIABETES	-	-	-	1	-	2	-	1	-	4
MISCELLANEOUS	-	-	1	-	-	1	-	-	-	2
UNCERTAIN	-	-	-	-	-	-	1	2	-	3
PRIMARY TREATMENT										
HOSPITAL IPD	1	-	-	1	-	-	-	2	-	4
HOSPITAL HD	-	1	5	4	14	13	8	6	-	51
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	-	-	-	1	3	2	3	-	9
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	-	-	-	-	-	-	-	-	-
TRANSPLANT OPERATIONS										
CADAVER 1	-	-	7	6	5	7	2	-	-	27
CADAVER 2	-	1	1	2	-	-	-	-	-	4
CADAVER 3	-	-	-	-	-	-	-	-	-	-
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	-	1	8	8	5	7	2	-	-	31
LIVING DONOR 1	2	-	-	-	-	-	-	-	-	2
LIVING DONOR 2	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	2	-	-	-	-	-	-	-	-	2
TOTAL TRANSPLANT OPERATIONS	2	1	8	8	5	7	2	-	-	33
FUNCTIONING TRANSPLANTS 31.10.88										
CADAVER 1	1	4	21	41	47	41	17	1	-	173
CADAVER 2	-	1	4	11	9	5	3	-	-	33
CADAVER 3	-	-	-	1	-	-	-	-	-	1
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	1	5	25	53	56	46	20	1	-	207
LIVING DONOR 1	1	2	6	11	3	3	-	-	-	26
LIVING DONOR 2	-	1	1	-	-	-	-	-	-	2
LIVING DONOR 3	-	-	-	1	-	-	-	-	-	1
TOTAL	1	3	7	12	3	3	-	-	-	29
TOTAL FUNCTIONING TRANSPLANTS	2	8	32	65	59	49	20	1	-	236*
PATIENTS DIALYSING 31.10.88										
HOSPITAL IPD	-	-	-	-	-	-	-	-	-	-
HOSPITAL HD	-	2	6	9	14	14	23	18	-	86
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	2	4	3	11	12	1	-	33
HOME IPD	-	1	-	-	-	-	-	-	-	1
HOME HD	-	-	3	5	7	7	2	1	-	25
HOSPITAL CAPD	1	-	-	1	-	-	-	1	1	4
HOME CAPD	-	3	2	5	6	13	9	4	-	42
TOTAL PATIENTS DIALYSING	1	6	13	24	30	45	46	25	1	191
DEATHS										
HOSPITAL IPD	-	-	-	-	-	-	-	-	-	-
HOSPITAL HD	-	-	-	-	3	3	5	5	-	16
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	-	-	-	1	-	1	-	2
HOSPITAL CAPD	-	-	-	-	-	-	-	1	-	1
HOME CAPD	-	-	-	-	-	2	-	1	-	3
TOTAL DIALYSIS DEATHS	-	-	-	-	3	6	5	8	-	22
TOTAL TRANSPLANT DEATHS	-	-	1	-	-	1	1	-	-	3
TOTAL DEATHS	-	-	1	-	3	7	6	8	-	25

* By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988
AGE GROUP POPULATION RELATED (PATIENTS PER MILLION) WESTERN AUSTRALIA

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	4	4	19	20	77	120	92	167	-	42
PRIMARY RENAL DISEASE										
GLOMERULONEPHRITIS	4	4	15	16	57	53	37	91	-	25
ANALGESIC NEPHROPATHY	-	-	-	-	-	38	28	-	-	5
POLYCYSTIC KIDNEY DISEASE	-	-	-	-	15	8	-	-	-	3
REFLUX NEPHROPATHY	-	-	-	-	5	-	-	-	-	1
HYPERTENSION	-	-	-	-	-	-	18	30	-	3
DIABETES	-	-	-	4	-	15	-	15	-	3
MISCELLANEOUS	-	-	4	-	-	8	-	-	-	1
UNCERTAIN	-	-	-	-	-	-	9	30	-	2
PRIMARY TREATMENT										
HOSPITAL IPD	4	-	-	4	-	-	-	30	-	3
HOSPITAL HD	-	4	19	16	72	98	73	91	-	35
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	-	-	-	5	23	18	45	-	6
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	-	-	-	-	-	-	-	-	-
TRANSPLANT OPERATIONS										
CADAVER 1	-	-	27	24	26	53	18	-	-	18
CADAVER 2	-	4	4	8	-	-	-	-	-	3
CADAVER 3	-	-	-	-	-	-	-	-	-	-
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	-	4	30	31	26	53	18	-	-	20
LIVING DONOR 1	8	-	-	-	-	-	-	-	-	1
LIVING DONOR 2	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	8	-	-	-	-	-	-	-	-	1
TOTAL TRANSPLANT OPERATIONS	8	4	30	31	26	53	18	-	-	21
FUNCTIONING TRANSPLANTS 31.10.88										
CADAVER 1	4	16	80	161	242	308	156	15	-	112
CADAVER 2	-	4	15	43	46	38	28	-	-	21
CADAVER 3	-	-	-	4	-	-	-	-	-	1
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	4	20	95	208	289	346	183	15	-	134
LIVING DONOR 1	4	8	23	43	15	23	-	-	-	17
LIVING DONOR 2	-	4	4	-	-	-	-	-	-	1
LIVING DONOR 3	-	-	-	4	-	-	-	-	-	1
TOTAL	4	12	27	47	15	23	-	-	-	19
TOTAL FUNCTIONING TRANSPLANTS	8	32	122	255	304	368	183	15	-	153*
PATIENTS DIALYSING 31.10.88										
HOSPITAL IPD	-	-	-	-	-	-	-	-	-	-
HOSPITAL HD	-	8	23	35	72	105	211	273	-	56
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	8	16	15	83	110	15	-	21
HOME IPD	-	4	-	-	-	-	-	-	-	1
HOME HD	-	-	11	20	36	53	18	15	-	16
HOSPITAL CAPD	4	-	-	4	-	-	-	15	35	3
HOME CAPD	-	12	8	20	31	98	83	61	-	27
TOTAL PATIENTS DIALYSING	4	24	49	94	155	338	422	379	35	124
DEATHS										
HOSPITAL IPD	-	-	-	-	-	-	-	-	-	-
HOSPITAL HD	-	-	-	-	15	23	46	76	-	10
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	-	-	-	8	-	15	-	1
HOSPITAL CAPD	-	-	-	-	-	-	-	15	-	1
HOME CAPD	-	-	-	-	-	15	-	15	-	2
TOTAL DIALYSIS DEATHS	-	-	-	-	15	45	46	121	-	14
TOTAL TRANSPLANT DEATHS	-	-	4	-	-	8	9	-	-	2
TOTAL DEATHS	-	-	4	-	15	53	55	121	-	16

* By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988

TASMANIA

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	-	-	1	1	5	4	6	2	-	19
PRIMARY RENAL DISEASE										
GLOMERULONEPHRITIS	-	-	-	-	2	2	1	-	-	5
ANALGESIC NEPHROPATHY	-	-	-	-	-	-	-	1	-	1
POLYCYSTIC KIDNEY DISEASE	-	-	-	-	-	-	-	-	-	-
REFLUX NEPHROPATHY	-	-	-	1	1	1	1	-	-	4
HYPERTENSION	-	-	-	-	-	1	-	-	-	1
DIABETES	-	-	-	-	1	-	-	1	-	2
MISCELLANEOUS	-	-	1	-	1	-	2	-	-	4
UNCERTAIN	-	-	-	-	-	-	2	-	-	2
PRIMARY TREATMENT										
HOSPITAL IPD	-	-	1	1	2	3	3	2	-	12
HOSPITAL HD	-	-	-	-	1	-	1	-	-	2
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	-	-	-	2	1	2	-	-	5
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	-	-	-	-	-	-	-	-	-
TRANSPLANT OPERATIONS										
CADAVER 1	-	-	-	-	-	-	-	-	-	-
CADAVER 2	-	-	-	-	-	-	-	-	-	-
CADAVER 3	-	-	-	-	-	-	-	-	-	-
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 1	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 2	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-
TOTAL TRANSPLANT OPERATIONS	-	-	-	-	-	-	-	-	-	-
FUNCTIONING TRANSPLANTS 31.10.88										
CADAVER 1	-	3	3	7	7	4	1	-	-	25
CADAVER 2	-	1	-	1	-	-	1	-	-	3
CADAVER 3	-	-	-	-	-	-	-	-	-	-
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	-	4	3	8	7	4	2	-	-	28
LIVING DONOR 1	-	1	1	1	1	-	-	-	-	4
LIVING DONOR 2	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	-	1	1	1	1	-	-	-	-	4
TOTAL FUNCTIONING TRANSPLANTS	-	5	4	9	8	4	2	-	-	32*
PATIENTS DIALYSING 31.10.88										
HOSPITAL IPD	-	-	-	-	-	-	1	1	-	2
HOSPITAL HD	-	-	-	-	①	②	①	①	-	⑤
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOME IPD	-	1	-	-	-	-	-	-	-	1
HOME HD	-	-	-	-	①	-	-	-	-	①
HOSPITAL CAPD	-	-	-	-	1	1	1	1	-	4
HOME CAPD	-	-	2	1	8	6	11	2	-	30
TOTAL PATIENTS DIALYSING	-	1	2	1	11	9	14	5	-	43
DEATHS										
HOSPITAL IPD	-	-	-	-	-	-	-	-	-	-
HOSPITAL HD	-	-	-	-	-	1	1	-	-	2
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	-	-	-	-	1	1	-	-	2
HOME CAPD	-	-	1	1	-	1	-	-	-	3
TOTAL DIALYSIS DEATHS	-	-	1	1	-	3	2	-	-	7
TOTAL TRANSPLANT DEATHS	-	-	-	1	1	1	-	-	-	3
TOTAL DEATHS	-	-	1	2	1	4	2	-	-	10

* By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988

AGE GROUP POPULATION RELATED (PATIENTS PER MILLION) TASMANIA

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	-	-	14	15	92	99	160	82	-	42
PRIMARY RENAL DISEASE										
GLOMERULONEPHRITIS	-	-	-	-	37	49	27	-	-	11
ANALGESIC NEPHROPATHY	-	-	-	-	-	-	-	41	-	2
POLYCYSTIC KIDNEY DISEASE	-	-	-	-	-	-	-	-	-	-
REFLUX NEPHROPATHY	-	-	-	15	18	25	27	-	-	9
HYPERTENSION	-	-	-	-	-	25	-	-	-	2
DIABETES	-	-	-	-	18	-	-	41	-	4
MISCELLANEOUS	-	-	14	-	18	-	53	-	-	9
UNCERTAIN	-	-	-	-	-	-	53	-	-	4
PRIMARY TREATMENT										
HOSPITAL IPD	-	-	14	15	37	74	80	82	-	27
HOSPITAL HD	-	-	-	-	18	-	27	-	-	4
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	-	-	-	37	25	53	-	-	11
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	-	-	-	-	-	-	-	-	-
TRANSPLANT OPERATIONS										
CADAVER 1	-	-	-	-	-	-	-	-	-	-
CADAVER 2	-	-	-	-	-	-	-	-	-	-
CADAVER 3	-	-	-	-	-	-	-	-	-	-
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 1	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 2	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-
TOTAL TRANSPLANT OPERATIONS	-	-	-	-	-	-	-	-	-	-
FUNCTIONING TRANSPLANTS 31.10.88										
CADAVER 1	-	41	43	102	129	99	27	-	-	56
CADAVER 2	-	14	-	15	-	-	27	-	-	7
CADAVER 3	-	-	-	-	-	-	-	-	-	-
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	-	54	43	117	129	99	53	-	-	63
LIVING DONOR 1	-	14	14	15	18	-	-	-	-	9
LIVING DONOR 2	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	-	14	14	15	18	-	-	-	-	9
TOTAL FUNCTIONING TRANSPLANTS	-	68	57	131	148	99	53	-	-	71*
PATIENTS DIALYSING 31.10.88										
HOSPITAL IPD	-	-	-	-	18	49	27	41	-	4
HOSPITAL HD	-	-	-	-	-	-	-	-	-	11
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOME IPD	-	14	-	-	-	-	-	-	-	2
HOME HD	-	-	-	-	18	-	-	-	-	2
HOSPITAL CAPD	-	-	-	-	18	25	27	41	-	9
HOME CAPD	-	-	29	15	148	148	294	82	-	67
TOTAL PATIENTS DIALYSING	-	14	29	15	203	222	374	205	-	96
DEATHS										
HOSPITAL IPD	-	-	-	-	-	25	27	-	-	4
HOSPITAL HD	-	-	-	-	-	-	-	-	-	-
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	-	-	-	-	-	-	-
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	-	-	-	25	27	-	-	4
HOSPITAL CAPD	-	-	14	15	-	25	-	-	-	7
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TOTAL DIALYSIS DEATHS	-	-	14	15	-	74	53	-	-	16
TOTAL TRANSPLANT DEATHS	-	-	-	15	18	25	-	-	-	7
TOTAL DEATHS	-	-	14	29	18	99	53	-	-	22

* By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988

NORTHERN TERRITORY

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	-	-	1	4	3	-	-	-	-	8
<u>PRIMARY RENAL DISEASE</u>										
GLOMERULONEPHRITIS	-	-	1	3	2	-	-	-	-	6
ANALGESIC NEPHROPATHY	-	-	-	-	-	-	-	-	-	-
POLYCYSTIC KIDNEY DISEASE	-	-	-	-	-	-	-	-	-	-
REFLUX NEPHROPATHY	-	-	-	-	-	-	-	-	-	-
HYPERTENSION	-	-	-	-	-	-	-	-	-	-
DIABETES	-	-	-	1	-	-	-	-	-	1
MISCELLANEOUS	-	-	-	-	1	-	-	-	-	-
UNCERTAIN	-	-	-	-	1	-	-	-	-	1
<u>PRIMARY TREATMENT</u>										
HOSPITAL IPD	-	-	-	1	-	-	-	-	-	1
HOSPITAL HD	-	-	1	-	3	-	-	-	-	4
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	-	3	-	-	-	-	-	3
HOSPITAL CAPD	-	-	-	-	-	-	-	-	-	-
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	-	-	-	-	-	-	-	-	-
<u>TRANSPLANT OPERATIONS</u>										
CADAVER 1	-	-	-	-	-	-	-	-	-	-
CADAVER 2	-	-	-	-	-	-	-	-	-	-
CADAVER 3	-	-	-	-	-	-	-	-	-	-
CADAVER 4/5	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 1	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 2	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-
TOTAL TRANSPLANT OPERATIONS	-	-	-	-	-	-	-	-	-	-
<u>FUNCTIONING TRANSPLANTS 31.10.88</u>										
CADAVER 1	-	1	-	4	5	3	1	-	-	14
CADAVER 2	-	-	-	-	-	-	-	-	-	-
CADAVER 3	-	-	-	-	-	-	-	-	-	-
CADAVER 4/5	-	-	-	-	-	-	-	-	-	-
TOTAL	-	1	-	4	5	3	1	-	-	14
LIVING DONOR 1	-	-	2	4	3	-	1	-	-	10
LIVING DONOR 2	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	2	4	3	-	1	-	-	10
TOTAL FUNCTIONING TRANSPLANTS	-	1	2	8	8	3	2	-	-	24*
<u>PATIENTS DIALYSING 31.10.88</u>										
HOSPITAL IPD	-	-	-	-	-	-	-	-	-	-
HOSPITAL HD	-	-	-	-	-	-	-	-	-	-
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	1	4	6	3	2	-	-	16
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	-	-	1	-	-	-	-	1
HOSPITAL CAPD	-	-	-	-	-	-	-	-	-	-
HOME CAPD	-	-	-	-	1	1	1	-	-	3
TOTAL PATIENTS DIALYSING	-	-	1	4	8	4	3	-	-	20
<u>DEATHS</u>										
HOSPITAL IPD	-	-	-	-	-	-	-	-	-	-
HOSPITAL HD	-	-	-	-	-	-	-	-	-	-
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	1	1	1	-	-	-	-	3
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	-	-	-	-	-	-	-	-	-
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TOTAL DIALYSIS DEATHS	-	-	1	1	1	-	-	-	-	3
TOTAL TRANSPLANT DEATHS	-	-	-	-	-	2	-	-	-	2
TOTAL DEATHS	-	-	1	1	1	2	-	-	-	5

* By caring hospital.

SUMMARY OF STOCK AND FLOW OF DIALYSIS AND TRANSPLANT PATIENTS 1988
AGE GROUP POPULATION RELATED (PATIENTS PER MILLION) NORTHERN TERRITORY

	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80 + YEARS	TOTAL
NEW PATIENTS	-	-	31	137	152	-	-	-	-	51
PRIMARY RENAL DISEASE										38
GLOMERULONEPHRITIS	-	-	31	103	101	-	-	-	-	-
ANALGESIC NEPHROPATHY	-	-	-	-	-	-	-	-	-	-
POLYCYSTIC KIDNEY DISEASE	-	-	-	-	-	-	-	-	-	-
REFLUX NEPHROPATHY	-	-	-	-	-	-	-	-	-	-
HYPERTENSION	-	-	-	-	-	-	-	-	-	6
DIABETES	-	-	-	34	-	-	-	-	-	-
MISCELLANEOUS	-	-	-	-	-	-	-	-	-	6
UNCERTAIN	-	-	-	-	51	-	-	-	-	-
PRIMARY TREATMENT										6
HOSPITAL IPD	-	-	-	34	-	-	-	-	-	26
HOSPITAL HD	-	-	31	-	152	-	-	-	-	-
SATELLITE IPD	-	-	-	-	-	-	-	-	-	19
SATELLITE HD	-	-	-	103	-	-	-	-	-	-
HOSPITAL CAPD	-	-	-	-	-	-	-	-	-	-
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TRANSPLANTED (NO DIALYSIS)	-	-	-	-	-	-	-	-	-	-
TRANSPLANT OPERATIONS										-
CADAVER 1	-	-	-	-	-	-	-	-	-	-
CADAVER 2	-	-	-	-	-	-	-	-	-	-
CADAVER 3	-	-	-	-	-	-	-	-	-	-
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 1	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 2	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-
TOTAL TRANSPLANT OPERATIONS	-	-	-	-	-	-	-	-	-	-
FUNCTIONING TRANSPLANTS 31.10.88										90
CADAVER 1	-	36	-	137	253	320	204	-	-	-
CADAVER 2	-	-	-	-	-	-	-	-	-	-
CADAVER 3	-	-	-	-	-	-	-	-	-	-
CADAVER 4	-	-	-	-	-	-	-	-	-	-
TOTAL	-	36	-	137	253	320	204	-	-	90
LIVING DONOR 1	-	-	62	137	152	-	204	-	-	64
LIVING DONOR 2	-	-	-	-	-	-	-	-	-	-
LIVING DONOR 3	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	62	137	152	-	204	-	-	64
TOTAL FUNCTIONING TRANSPLANTS	-	36	62	274	405	320	408	-	-	154*
PATIENTS DIALYSING 31.10.88										-
HOSPITAL IPD	-	-	-	-	-	-	-	-	-	-
HOSPITAL HD	-	-	-	-	-	-	-	-	-	-
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	31	137	303	320	408	-	-	103
HOME IPD	-	-	-	-	51	-	-	-	-	6
HOME HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	-	-	-	51	107	204	-	-	19
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TOTAL PATIENTS DIALYSING	-	-	31	137	405	427	612	-	-	128
DEATHS										-
HOSPITAL IPD	-	-	-	-	-	-	-	-	-	-
HOSPITAL HD	-	-	-	-	-	-	-	-	-	-
SATELLITE IPD	-	-	-	-	-	-	-	-	-	-
SATELLITE HD	-	-	31	34	51	-	-	-	-	19
HOME IPD	-	-	-	-	-	-	-	-	-	-
HOME HD	-	-	-	-	-	-	-	-	-	-
HOSPITAL CAPD	-	-	-	-	-	-	-	-	-	-
HOME CAPD	-	-	-	-	-	-	-	-	-	-
TOTAL DIALYSIS DEATHS	-	-	31	34	51	-	-	-	-	-
TOTAL TRANSPLANT DEATHS	-	-	-	-	-	213	-	-	-	13
TOTAL DEATHS	-	-	31	34	51	213	-	-	-	32

* By caring hospital.

STATISTICAL METHODS

Actuarial survival has been calculated by the method described by Cutler-Ederer (J.Chron. Dis. 1958: 8, 699-713)

Testing the equality of survival distributions for different groups was performed using the Mantel-Cox test as implemented in B.M.D.P. and described in Mantel (Cancer Chemotherapy Reports 1966 50 163-170)

ESTIMATED RESIDENT POPULATION BY AGE GROUPS
IN STATES AND TERRITORIES AT 30TH. JUNE

STATE	0-9 YEARS	10-19 YEARS	20-29 YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	60-69 YEARS	70-79 YEARS	80+ YEARS	TOTAL
QLD.										
1982	395,085	423,319	398,818	342,478	237,258	224,873	180,462	102,429	40,613	2,345,335
1983	399,687	434,689	413,827	361,617	248,147	226,691	185,919	106,993	42,000	2,419,570
1984	403,088	440,969	421,131	377,332	257,168	226,915	190,635	111,378	43,007	2,471,623
1985	402,032	443,674	424,151	386,666	268,727	226,687	193,648	116,697	44,767	2,507,049
1986	405,630	451,754	429,798	405,848	295,652	228,574	201,557	125,203	48,618	2,592,634
1987	409,898	457,917	443,272	411,587	322,441	235,389	211,110	131,255	52,444	2,675,313
1988	414,793	463,325	451,370	422,146	342,891	239,818	217,871	135,570	55,161	2,742,945
N.S.W.										
1982	877,140	922,821	918,653	820,047	584,968	569,915	433,014	243,372	94,393	5,464,323
1983	865,805	931,995	935,529	848,061	599,189	567,249	442,534	253,462	96,063	5,539,887
1984	858,073	934,222	934,074	872,141	613,556	562,713	415,555	263,295	98,328	5,596,957
1985	853,343	935,002	951,009	888,440	635,803	557,889	459,844	274,038	101,241	5,656,609
1986	856,883	940,147	969,154	921,964	686,936	552,409	478,344	292,289	109,691	5,807,817
1987	866,293	934,897	961,133	920,708	719,586	554,156	492,318	301,328	118,006	5,868,425
1988	880,475	938,797	967,617	939,075	754,867	557,218	503,922	307,447	123,185	5,972,603
VIC.										
1982	623,355	701,388	664,066	579,338	418,131	408,530	302,260	180,414	71,073	3,948,555
1983	612,467	706,477	674,019	597,874	427,288	406,382	309,258	186,942	73,415	3,994,122
1984	605,843	706,466	683,135	617,752	436,072	403,914	315,439	193,280	75,697	4,037,598
1985	600,171	704,699	691,366	631,826	448,962	401,404	321,224	200,645	78,161	4,078,458
1986	597,973	697,078	702,619	657,653	480,530	396,876	335,765	211,704	84,543	4,164,741
1987	603,410	693,823	701,384	657,308	506,606	396,627	342,867	214,944	90,720	4,207,689
1988	608,883	688,375	708,222	666,722	529,498	396,981	350,940	216,413	94,272	4,260,306
S.A.										
1982	197,348	231,370	223,409	190,535	135,905	142,565	110,808	62,519	24,868	1,319,327
1983	193,892	230,015	224,614	196,782	137,993	140,929	113,349	65,478	25,686	1,328,738
1984	192,690	228,266	226,620	203,423	140,700	139,278	115,855	68,461	26,229	1,341,522
1985	192,746	225,460	228,226	208,301	144,643	137,572	117,783	71,858	27,328	1,353,917
1986	192,922	218,922	228,132	215,546	154,640	133,284	123,051	76,887	29,763	1,373,147
1987	194,796	218,447	232,036	216,228	164,874	132,302	125,193	78,327	31,610	1,393,813
1988	196,025	215,411	233,473	219,262	172,290	131,031	127,494	79,845	33,153	1,407,984
W.A.										
1982	217,995	235,432	231,302	199,645	137,996	118,892	86,077	53,191	18,564	1,299,094
1983	219,767	240,649	237,336	210,736	143,865	120,594	88,829	55,478	19,657	1,336,911
1984	221,177	242,497	240,275	220,508	148,484	121,770	91,227	57,671	20,846	1,364,455
1985	221,220	242,656	241,169	226,323	154,768	122,555	93,151	59,816	22,007	1,383,665
1986	226,626	244,958	247,038	241,814	167,869	126,070	97,833	63,722	24,677	1,440,607
1987	234,072	248,406	256,392	247,059	182,428	130,103	104,443	66,280	26,876	1,496,059
1988	240,246	251,526	263,901	255,889	194,345	133,308	109,277	66,919	28,549	1,543,920
TAS.										
1982	71,094	78,606	71,807	60,134	43,110	42,112	33,861	19,278	7,306	427,308
1983	69,906	77,985	72,542	61,829	43,690	41,798	34,380	19,982	7,640	429,752
1984	69,065	77,364	73,091	63,818	44,479	41,148	34,977	20,796	7,877	432,615
1985	69,135	76,636	74,449	65,344	45,906	40,802	35,191	21,742	8,166	437,371
1986	69,923	75,599	75,221	69,172	49,184	40,057	36,001	23,069	8,659	446,885
1987	70,298	75,164	72,317	68,318	52,335	40,570	36,960	23,934	9,239	449,135
1988	69,911	74,119	69,687	68,610	54,205	40,604	37,423	24,347	9,508	448,414
N.T.										
1982	27,407	22,209	26,973	22,804	11,798	6,973	3,243	1,129	308	122,844
1983	28,239	23,933	28,063	24,451	12,686	7,226	3,343	1,170	318	129,429
1984	28,687	25,021	28,383	25,624	13,608	7,515	3,451	1,279	308	133,876
1985	29,372	26,231	28,601	27,002	14,594	7,828	3,555	1,347	296	138,826
1986	30,302	28,638	28,860	28,935	16,907	8,474	3,917	1,659	384	148,076
1987	31,107	28,144	33,883	30,267	18,775	9,155	4,796	1,767	508	158,402
1988	30,580	27,415	32,146	29,247	19,748	9,368	4,904	1,834	515	155,757
AUST.										
1982	2,409,424	2,615,145	2,535,028	2,214,981	1,569,166	1,513,860	1,149,725	662,332	257,125	14,926,786
1983	2,389,763	2,645,763	2,585,930	2,301,350	1,612,858	1,510,869	1,177,612	689,505	264,779	15,178,409
1984	2,378,623	2,654,805	2,615,709	2,380,598	1,654,067	1,503,253	1,203,139	716,160	272,292	15,378,646
1985	2,368,019	2,654,358	2,638,971	2,433,902	1,713,403	1,494,737	1,224,396	746,143	281,966	15,555,895
1986	2,380,259	2,657,096	2,680,822	2,540,932	1,851,718	1,485,744	1,276,468	794,533	306,335	15,973,907
1987	2,409,874	2,656,798	2,700,417	2,551,475	1,967,045	1,498,302	1,317,687	817,835	329,403	16,248,836
1988	2,440,873	2,658,968	2,726,416	2,600,951	2,067,844	1,508,328	1,351,831	832,375	344,343	16,531,929

These figures are from the Australian Bureau of Statistics
and are based on estimates updated from the 1986 Census.

AUSTRALIA AND NEW ZEALAND DIALYSIS AND TRANSPLANT REGISTRY

INTERIM SUMMARY 1.5.88 - 31.10.88

HOSPITAL	DIALYSIS PATIENTS AT 31.10.88									FUNCTIONING TRANSPLANTS AT 31.10.88										PATIENT FLOW 1.5.88 - 31.10.88							
	HOSPITAL		HOME		CAPD H O M E	SAT		TOTAL DIAL. PTS.	CARING HOSPITAL						TRANSPLANT HOSPITAL						NEW PTS	NEW TX		DEATHS		TOTAL PT. FLOW	
	HD	PD	HD	PD		HD	PD		1	2	3	4	5	TOTAL	1	2	3	4	5	TOTAL		CAD	LD	DI	TX		
AUSTRALIA	772	17	572	19	33	757	426	2	2598 (597) ^x	2389 ^o	369	47	6	1	2812 ^o	2378	369	47	6	1	2801	380	219	23	163	53	5632 (2) ⁺ (4) ^o
P. Alex. Townsv. R. Briab. Rock. Toowoomba Greenall. Goldcoast	54 19 51 19 13 1 3	2 1 2 - - - -	33 5 - - - - 3	- - - - - - -	1 - - 1 1 - -	45 17 18 4 13 7 8	1 13 40 - - - 3	- 1 - - - - -	136 (47) 57 (12) 111 (19) 24 (2) 27 (5) 8 (-) 17 (1)	248 ^o 47 67 29 18 - 17	43 10 6 4 1 - 2	- 1 - - - - -	- - - - - - -	295 ^o 58 73 33 19 - 19	398 - - - - - -	64 - - - - - -	4 - - - - - -	- - - - - - -	- - - - - - -	466 - - - - - -	27 10 17 7 2 2 -	45 - - - - - -	1 - - - - - -	9 9 3 1 4 1 1	9 - 3 - - - -	449 124 190 58 51 9 37	
QLD.	160	5	41	-	4	112	57	1	380 (86)	426	66	5	-	-	497	398	64	4	-	-	466	65	45	1	27	14	918
Newcastle Wollong. St. V's. Lidcombe Pr. Henry St. George R. P. Alfd R. Alex. Concord Westmead Blacktown Canberra Mater R. M. Shore S. Advent. Sydney H.	34 15 35 17 28 11 39 1 14 43 - 17 21 31 13 -	- - - - - - - - - - - - - - - -	23 - 42 5 38 15 55 - 71 19 - 12 6 29 -	- - 4 - 1 1 - - 1 1 - 1 1 4 - -	2 - - - 2 1 4 - 1 - - - - - -	26 15 13 16 22 11 53 8 43 38 25 16 28 24 1	16 13 3 5 1 1 17 - 3 16 16 - - 41 1	- - - - - - - - - - - - - - - -	101 (11) 30 (6) 109 (25) 41 (5) 99 (27) 43 (2) 169 (34) 10 (5) 132 (13) 107 (17) 16 (6) 71 (15) 28 (10) 130 (32) 14 (0)	76 ^o 21 ^o 46 6 ^o 136 ^o 7 244 ^o 41 38 96 - 51 ^o 8 129 -	3 1 10 2 5 1 30 5 1 1 8 2 21 -	1 - - - 1 1 5 - 1 1 - - 1 -	- - - - - - - - - - - - - -	80 ^o 23 ^o 58 6 ^o 164 ^o 7 280 ^o 46 40 107 - 55 ^o 12 154 -	45 - 47 - 180 23 327 - 37 48 - - 22 70 129	1 - 11 2 6 1 5 1 - - - 2 12 3 -	- - 2 - 1 1 - - 1 - - - - - -	47 - 60 - 211 - 375 - 39 52 - - 24 86 149	16 3 14 2 17 4 26 - 17 22 11 - 13 2 -	2 - 3 - 23 5 28 - 5 18 - - 2 2 -	4 - - - 1 1 5 - 1 - - - 1 1 -	6 2 7 - 8 5 7 - 11 6 - 6 4 7 -	9 - - - 1 - - - 4 - - - - - -	9 - 3 - 1 5 2 - 4 - - - - - -	449 124 190 58 51 9 37		
N.S.W.	319	6	318	10	16	292	138	1	1100 (208)	899 ^o	108	20	4	1	1032 ^o	905	112	21	4	1	1043	150	81	12	71	20	2226 (2) ⁺ (1) ^o
St. V's. Austin R. Child. Alfred Fairfield P. Henry's R. Meib. Heidelberg. Vic. Paed.	16 23 - 7 23 13 22 17 2	- 1 - 2 - - - - 1	4 21 - - 12 36 72 6 2	- - 1 - - - 3 - 1	- - - - - 2 - - -	23 22 10 9 9 91 57 11 3	3 29 - - 1 23 46 1 - -	- - - - - - - - -	46 (13) 96 (34) 11 (2) 18 (2) 45 (16) 165 (43) 200 (63) 35 (5) 9 (3)	51 ^o 95 - 27 18 137 230 - 13	10 22 - 1 3 28 48 2	1 3 - - - - 9 1 2	- 1 - - - - - - -	62 ^o 121 - 28 21 165 288 - 17	50 98 - 33 13 144 261 11	9 22 - 1 3 27 50 2	1 3 - - - 1 9 1 1	- - - - - - - - -	60 124 7 34 16 172 321 - 14	4 9 7 5 1 20 30 2 2	3 13 1 5 1 14 22 1 1	2 - - - - 3 15 4 -	- 1 - 2 1 3 - - -	111 220 11 49 69 346 507 39 26			
VIC	123	4	153	5	2	233	103	-	625 (181)	571 ^o	114	15	2	-	702 ^o	610	114	15	2	-	741	80	59	7	40	10	1378 (1) ⁺
Lanncoston R. Hobart	2 3	- 2	- 1	- 1	- 1	3 11	19 -	- -	24 (1) 19 (5)	16 13	2 1	- -	- -	- -	18 14	- 2	- -	- -	- -	- -	- 2	5 4	- -	- -	- 1	- -	43 34
TAS.	5	2	1	1	4	30	-	-	43 (6)	29	3	-	-	-	32	2	-	-	-	-	2	9	-	-	1	1	77
Q. Eliz. Flinders R. Adelaide A. Child.	40 17 17 5	- - - -	25 4 4 -	- - - 2	1 1 1 -	15 14 29 1	47 2 29 1	- - - -	128 (51) 38 (8) 65 (12) 8 (4)	142 ^o 26 65 8	35 1 6 1	5 - - -	- - - -	- - - -	182 ^o 27 71 9 ^o	262 - - 2	43 - - -	5 - - -	- - - -	- - - 2	310 - - -	17 8 14 2	23 - - -	1 - - -	6 2 3 -	4 - - -	322 (2) ⁺ 67 139 17
S.A.	79	-	33	2	3	43	79	-	239 (75)	241 ^o	43	5	-	-	289 ^o	264	43	5	-	-	312	41	23	1	11	4	545 (2) ⁺
A. Springs R. Darwin	- -	- -	- 1	- -	- -	3 6	10 6	- -	10 (1) 10 (0)	9 15	- -	- -	- -	- -	9 15	- -	- -	- -	- -	- -	- -	1 1	- -	- -	- 1	1 1	20 27
N.T.	-	-	1	-	-	3	16	-	20 (1)	24	-	-	-	-	24	-	-	-	-	-	-	2	-	-	1	2	47
R. Perth P. Med. Ct. P. Margaret	38 46 2	- - -	22 3 -	- - 1	3 1 1	31 10 1	33 - -	- - -	127 (24) 59 (13) 5 (3)	124 ^o 70 5	20 14 1	1 - -	- - -	- - -	145 ^o 85 6	145 46 8	23 11 1	1 1 -	- - -	- 58 10	169 10 -	22 10 1	8 3 -	- - 2	8 4 1	1 - -	281 149 11
W.A.	86	-	25	1	4	42	33	-	191 (40)	199 ^o	35	2	-	-	236 ^o	199	36	2	-	-	237	33	11	2	12	2	441

(*) x Failed graft patients dialysing at 31.10.88.
 (4) Number of patients no longer dialysis dependant after spontaneous recovery of renal function.
 (2) + Patients transferred to dialysis outside Australia.

(1) * Patients transferred to New Zealand.
 (12) * Patients transferred from New Zealand.

N.Z.	98	-	162	-	9	196	4	-	469 (114) ^x	381 ^o	70	11	2	-	464 ^o	392	70	11	2	-	475	78	37	2	28	9	972 (2) ⁺
Auckland	48	-	31	-	4	99	-	-	182 (54)	138 ^o	28	4	1	-	171 ^o	145	27	4	1	-	177	33	14	-	12	4	371 (2) ⁺
Dunedin	7	-	13	-	-	3	-	-	23 (3)	11	-	1	-	-	12	-	-	-	-	-	-	3	-	-	-	2	37
Wellington	26	-	50	-	2	44	1	-	123 (25)	130	22	1	-	-	153	141	24	1	-	-	166	22	14	2	12	-	288
Christch.	6	-	47	-	3	6	-	-	62 (18)	64	14	3	1	-	82	72	13	4	1	-	90	10	5	-	3	1	148
Waikato	11	-	21	-	-	47	-	-	79 (14)	38	6	2	-	-	46	34	6	2	-	-	42	10	4	-	1	2	128

(*) x Failed graft patients dialysing at 31.10.88.
 (2) Number of patients no longer dialysis dependant after spontaneous recovery of renal function.

(12) * Patients transferred to Australia.
 (1) * Patients transferred from Australia.

AUSTRALIA AND NEW ZEALAND DIALYSIS AND TRANSPLANT REGISTRY

INTERIM SUMMARY 1.11.87 - 30.4.88

HOSPITAL	DIALYSIS PATIENTS AT 30.4.88								FUNCTIONING TRANSPLANTS AT 30.4.88										PATIENT FLOW 1.11.87 - 30.4.88						
	HOSPITAL		HOME		CAPD H O S P	H O M E	SAT		TOTAL DIAL. PTS.	CARING HOSPITAL					TRANSPLANT HOSPITAL					NEW PTS	NEW TX		DEATHS		TOTAL PT. FLOW
	HD	PD	HD	PD			HD	PD		1	2	3	4	TOTAL	1	2	3	4	TOTAL		CAD	LD	DX	TX	
AUSTRALIA	762	23	574	9	30	726	387	1	2512 (595) ^x	2288 ^o	358	45	5	2696 ^o	2279 [*]	358	45	5	2687 [*]	353	182	25	178	33	5437 ⁽³⁾⁺ (15) [*]
P.Alex. Townsv. R.Brieb. Rock. Toowoomba Greensl. Goldcoast	47 25 48 19 15 2 3	4 3 1 - - - -	34 7 - - - - 3	- - - - - - -	2 - - - - 1 -	42 14 17 3 14 4 8	- 14 40 - - - 2	- - - - - - -	- - - - - - -	129 (49) 63 (15) 106 (17) 22 (2) 29 (5) 7 (-) 16 (1)	242 ^o 41 59 24 21 - 14	43 10 6 4 1 - 1	3 - - - - - -	288 51 65 28 22 - 15	375 - - - - - -	63 - - - - - -	3 - - - - - -	- - - - - -	441 - - - - - -	23 11 13 4 2 - -	46 - - - - - -	2 - - - - - -	7 9 9 3 - - 1	5 2 1 - - - -	429 125 182 53 54 9 32
QLD.	159	8	44	-	3	102	56	-	372 (89)	401 ^o	65	3	-	469	375 [*]	63	3	-	441	57	46	2	32	8	884 (3) [*]
Newcastle Wollong. St. V's. Lidcombe Pr. Henry St. George R.P.Aldf. R.Alex. Concord Westmead Canberra Mater R.M.Shore Sydney H. S.Advent.	40 15 37 17 30 9 45 - 8 44 23 18 31 - 11	- 2 - 1 1 3 3 - - - - - - -	23 3 - 5 40 14 50 - 70 20 9 8 - -	- - - - - 2 1 - - - - - - -	- 1 - - - 2 2 - 2 - 1 - - -	22 13 12 16 27 18 54 10 39 35 21 - - -	7 - 15 2 6 3 13 2 4 16 - - - 1	- - - - 1 - - - - - - - - -	- - - - - - - - - - - - - -	92 (9) 34 (7) 104 (23) 41 (6) 105 (31) 49 (4) 168 (36) 12 (4) 123 (14) 116 (21) 69 (16) 26 (12) 127 (33) 12 (0)	78 ^o 19 ^o 46 6 129 ^o 4 231 ^o 39 38 82 52 ^o 9 129 -	1 - 10 - 19 3 27 5 1 - 9 23 -	1 - 2 - 3 - 5 - - 2 - 4 1 -	- - - - 1 - 1 - - 2 - - - -	80 20 ^o 58 6 152 ^o 4 264 ^o 44 39 93 56 ^o 13 157 -	43 - 46 - 167 - 318 - 35 34 - 22 70 133	- - 11 - 20 4 39 - 1 3 - 3 1 3	1 - 2 - 4 1 5 - - - - - -	- - - - 192 - 363 - 36 37 - 24 87 153	15 6 11 5 12 7 34 14 17 11 1 9 2	1 - 7 - 14 19 2 3 - 7 2 - -	2 - 1 - - 2 8 - 1 - 6 - -	8 1 3 4 7 8 9 1 5 - 1	1 - 2 - - 2 2 - - - - -	181 55 167 51 266 58 445 56 174 221 135 41 291 13
N.S.W.	328	10	307	5	8	299	120	1	1078 (216)	862 ^o	103	18	3	986 ^o	868	106	18	3	995	145	53	12	71	12	2154 (1)+ (6)+
St. V's. Austin R.Child. Alfred Fairfield P.Henry's R.Melb. Heidelberg Vic.Paed.	17 14 - 9 23 8 17 21 2	- - - 1 - - - - 1	5 26 - - 11 40 74 6 1	- - - - - - - - -	- 2 - - - 2 1 - -	23 19 5 10 7 100 55 7 1	3 27 - - - 19 44 1 - -	- - - - - - - - -	- - - - - - - - -	48 (16) 88 (28) 7 (1) 20 (2) 42 (15) 169 (45) 194 (62) 35 (5) 6 (2)	49 ^o 92 - 23 19 130 221 - 13	8 22 - 1 3 25 48 - 2	1 3 - - - 9 1 - 2	- 118 - 24 - 155 279 - 17	48 95 - 29 14 137 252 11	7 22 - - 3 24 50 2	1 3 - - - 1 9 - 1	- 121 - 30 17 162 312 - 14	4 6 4 3 1 20 34 5	2 5 - 4 1 13 20 - 2	1 - - - - 3 2 - -	3 5 - 1 3 6 16 - -	- 2 - - - 2 16 - -	- - - - - 2 - -	109 214 7 46 67 334 491 23
VIC.	111	2	163	3	8	227	95	-	609 (176)	547 ^o	109	15	2	673 ^o	586	109	15	2	712	78	47	6	36	6	1329 (1)+ (4)+
Launceston R.Bohart	2 3	- 2	- 1	- 1	1 1	17 8	- -	- -	20 (1) 17 (5)	16 13	2 1	- -	- -	18 14	- 3	- -	- -	- -	3	7 3	- -	- -	5 1	- 2	43 34
TAS.	5	2	1	1	3	25	-	-	37 (6)	29	3	-	-	32	3	-	-	-	3	10	-	-	6	2	77
Q.Elin. Flinders R.Adelaide A.Child.	41 17 19 3	1 - - -	26 5 4 -	- - - -	- 1 - -	13 9 14 -	47 1 23 2	- - - -	- - - -	128 (50) 33 (7) 60 (12) 5 (2)	144 ^o 22 59 11 ^o	34 2 5 1	5 - - -	- - - -	183 ^o 24 64 12 ^o	249 - - 4	43 - - -	5 - - -	297 - - 4	13 8 11 1	16 - - -	5 - - -	9 5 7 -	3 1 - -	324 (1)+ 64 (1)+ 132 (1)+ 17
S.A.	80	1	35	-	1	36	73	-	226 (71)	236 ^o	42	5	-	283 ^o	253	43	5	-	301	33	16	5	21	4	537 (1)+ (2)+
A.Springe R.Darwin	- -	- -	- 4	- -	- -	- 3	6 4	- -	6 (1) 11 (1)	5 14	- -	- -	- -	5 14	- -	- -	- -	- -	- -	- -	- -	- -	1 1	- -	12 26
N.T.	-	-	4	-	-	3	10	-	17 (2)	19	-	-	-	19	-	-	-	-	-	-	-	-	2	-	38
R.Perth P.Med.Ct. P.Margr.	36 41 2	- - -	19 1 -	- - -	6 1 -	24 7 3	33 - -	- - -	- - -	118 (25) 50 (8) 5 (2)	118 ^o 70 6	20 14 2	1 3 -	- - -	139 ^o 87 8	142 [*] 45 7	23 11 3	1 - -	- 59 10	20 10 -	12 7 -	- - -	5 5 -	1 - -	263 142 13
W.A.	79	-	20	-	7	34	33	-	173 (35)	194 ^o	36	4	-	234 ^o	194 [*]	37	4	-	235 [*]	30	20	-	10	1	418

() x Failed graft patients dialysing at 30.4.88

(15) * Number of patients no longer dialysis dependent after spontaneous recovery of renal function.

(3) + Patients transferred to dialysis outside Australia.

(1) * Patients transferred to New Zealand.

(10) o Patients transferred from New Zealand.

N.Z.	92	1	161	-	3	177	4	-	438 (117) ^x	367 [*]	70	12	2	451 [*]	376 ^o	70	12	2	460 ^o	62	35	7	32	11	934 (2) [*]
Auckland	44	-	39	-	-	92	-	-	175 (57)	131 [*]	28	4	1	164 [*]	140 ^o	27	4	1	172 ^o	18	15	-	13	2	354
Dunedin	10	-	8	-	-	3	-	-	21 (3)	14	-	1	-	15	-	-	-	-	-	5	-	-	-	-	36
Wellington	24	1	51	-	1	41	1	-	119 (25)	123	21	1	-	145	132 ^o	23	1	-	156 ^o	25	10	3	9	5	290 (2) [*]
Christch.	6	-	44	-	1	4	-	-	55 (19)	60	15	3	1	79	71 ^o	14	4	1	90 ^o	9	5	1	5	1	140
Waikato	8	-	19	-	1	40	-	-	68 (13)	39	6	3	-	48	33 ^o	6	3	-	42 ^o	5	5	1	5	3	124

() x Failed graft patients dialysing at 30.4.88

(2) * Number of patients no longer dialysis dependent after spontaneous recovery of renal function.

(10) o Patients transferred to Australia.

(1) * Patients transferred from Australia.

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