

CHAPTER 2

NEW PATIENTS

COMMENCING TREATMENT IN 2004

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Figure 2.1

Annual Intake of New Patients 2000 - 2004 (Number Per Million Population)					
	2000	2001	2002	2003	2004
Queensland	342 (96)	338 (93)	378 (102)	419 (110)	401 (103)
New South Wales	540 (86)	601 (94)	583 (91)	630 (97)	530 (81)
Aust. Capital Territory	39 (78)	33 (65)	48 (93)	39 (75)	44 (84)
Victoria	436 (92)	495 (103)	472 (97)	447 (91)	457 (92)
Tasmania	32 (68)	37 (78)	36 (76)	40 (84)	31 (64)
South Australia	117 (79)	153 (101)	120 (79)	152 (100)	157 (102)
Northern Territory	53 (271)	65 (329)	59 (297)	55 (277)	79 (395)
Western Australia	197 (105)	189 (99)	204 (106)	203 (104)	213 (107)
Australia	1756 (92)	1911 (98)	1900 (97)	1985 (100)	1912 (95)
New Zealand	422 (109)	467 (120)	467 (119)	461 (115)	447 (110)

INTAKE OF NEW PATIENTS

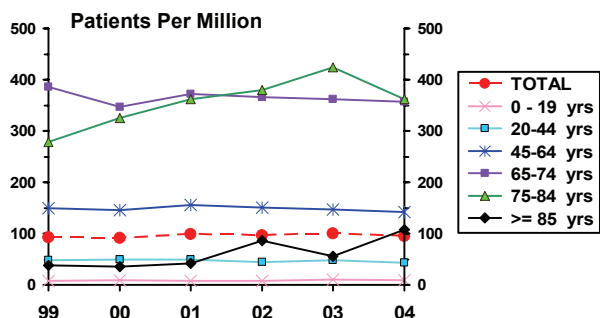
There were 1912 new patients who commenced treatment for end-stage renal failure in Australia in 2004, a rate of 95 per million population per year.

This was a decrease of 4% from 2003, after a 4% increase from the previous year. The numbers for 2004 were similar to those reported in 2001 and 2002.

In New Zealand, the number of new patients entering renal failure programs was 447, a rate of 110 per million of population. This was a decrease of 3% from 2003.

Figure 2.2

Acceptance of New Patients 1999 - 2004
Age Specific Rates - Australia



AGE OF NEW PATIENTS

In Australia in 2004, only one age group showed an increase in acceptance of new patients. The >=85 year age group rose from 55 to 107 per million (16 to 32 patients). The numbers in the 0-14, 15-24 and 65-74 year age groups remained steady.

There were decreases in the 25-34, 35-44, 45-54 and the 55-64 year age groups, but the largest decrease was in the 75-84 year age group from 423 to 361 per million (338 from 384 patients in 2003) (fig 2.2).

The mean age of patients entering programs in Australia in 2004 was 59.5 years and the median 62.3 years (fig 2.5).

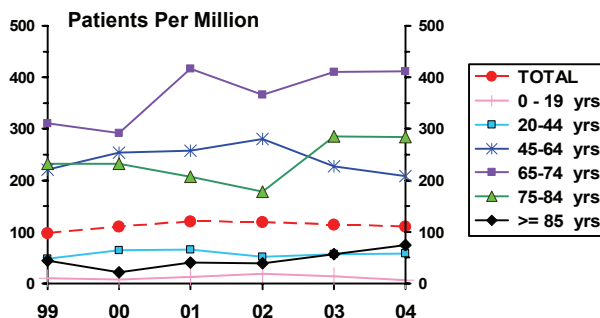
In New Zealand, the mean age of patients entering was 57.5 years and the median 60.1 years (fig 2.5).

The age specific rates of acceptance decreased in all groups except the >=85 year age group which rose to 107 per million (fig 2.4).

The main decreases were in the 20-44 year age group from 48 to 43 per million, the 45-64 year age group from 147 to 141 per million, the 65-74 year age group from 362 to 357 per million and the largest decrease was in the 75-84 year age group, 423 to 361 per million (fig 2.3).

Figure 2.3

Acceptance of New Patients 1999 - 2004
Age Specific Rates - New Zealand



Within the older age groups, the difference continues between Australia and New Zealand with rates of people 60-74 years greater in New Zealand whereas the rates of people 75-84 years were greater in Australia.

Rates of new patients aged ≥ 85 years increased from 55 per million in 2003 to 107 per million in 2004 in Australia and from 57 to 74 per million in New Zealand. This age group has increased rapidly over the past five years.

Figure 2.4

Acceptance of Elderly New Patients 2000 - 2004 (Number Per Million Population)						
Country	Age Groups	2000	2001	2002	2003	2004
Australia	60-64 years	190 (238)	207 (252)	193 (228)	192 (221)	184 (203)
	65-69 years	212 (313)	240 (352)	214 (306)	232 (322)	249 (334)
	70-74 years	242 (382)	252 (395)	276 (433)	257 (408)	241 (385)
	75-79 years	197 (388)	220 (424)	236 (447)	268 (498)	239 (435)
	80-84 years	68 (220)	88 (267)	97 (278)	116 (315)	99 (256)
	≥ 85 years	9 (36)	11 (41)	24 (87)	16 (55)	32 (107)
	Total	918 (289)	1018 (313)	1040 (312)	1081 (317)	1044 (298)
New Zealand	60-64 years	71 (465)	67 (416)	79 (469)	63 (368)	65 (368)
	65-69 years	44 (335)	55 (420)	51 (384)	51 (376)	59 (423)
	70-74 years	29 (243)	50 (414)	42 (347)	54 (447)	48 (399)
	75-79 years	26 (274)	24 (249)	21 (215)	38 (381)	37 (366)
	80-84 years	10 (167)	9 (137)	8 (123)	10 (147)	12 (169)
	≥ 85 years	1 (21)	2 (40)	2 (39)	3 (57)	4 (74)
	Total	181 (299)	207 (331)	203 (319)	219 (338)	225 (340)

STATE OF ORIGIN OF NEW PATIENTS

Although there was an overall decrease in the number of new renal replacement therapy patients in Australia in 2004, there was an increase in five States/Territories (fig 1.6): Northern Territory (44%), ACT (13%), Western Australia (5%), South Australia (3%) and Victoria (2%). Decreases were seen in Tasmania (23%), New South Wales (16%) and Queensland (4%). These changes need to be seen in the context of the statistical variation which is greater in smaller States/Territories (fig 2.6).

The highest acceptance rates were in the Northern Territory (395 per million) and Western Australia (107 per million) and the lowest in New South Wales (18 per million) and Tasmania (64 per million) (fig 2.1).

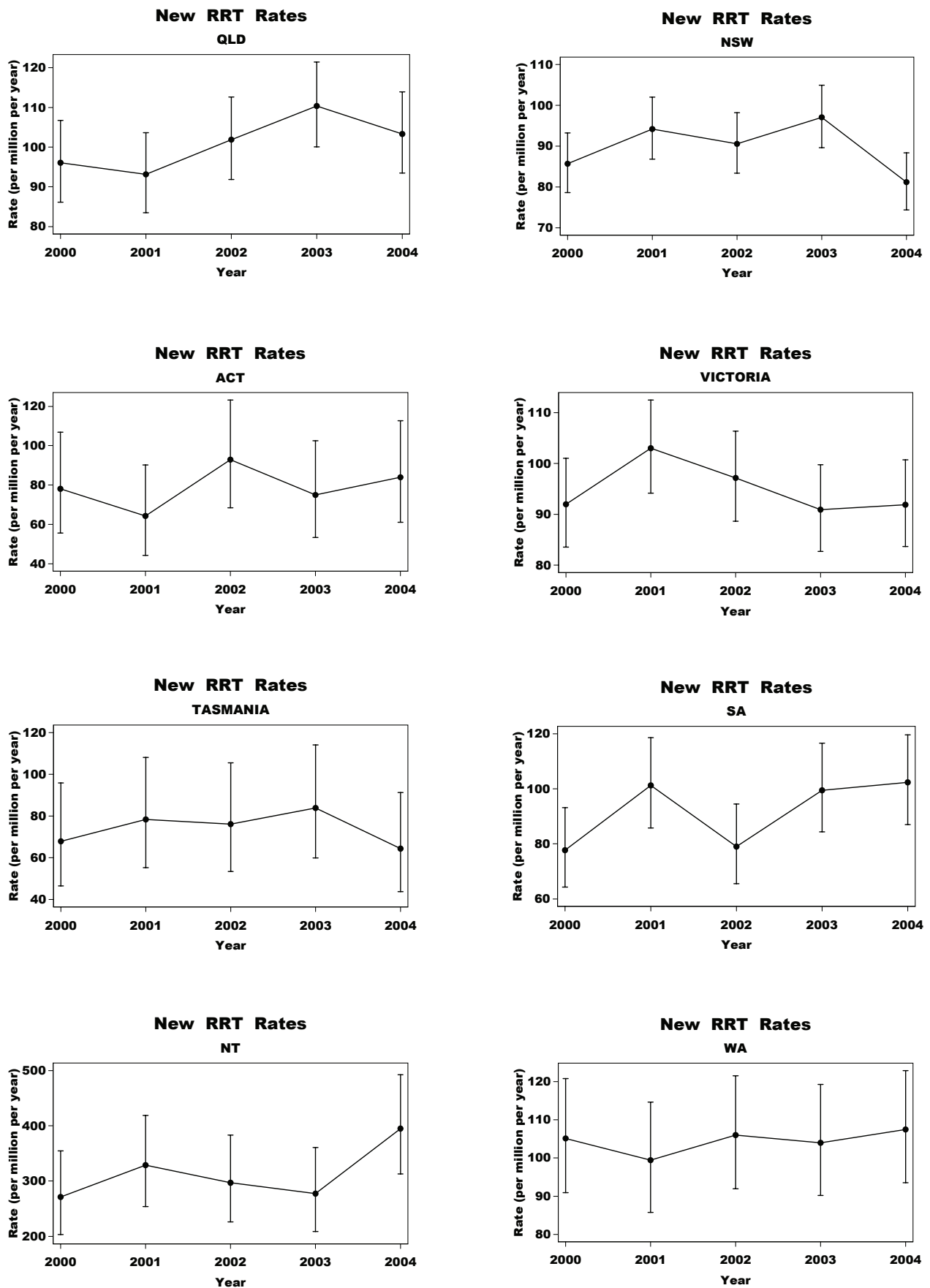
Figure 2.5

Age and Gender of New Patients 1-Jan-2004 to 31-Dec-2004 (n = Number of Patients)																				
Age Groups	Qld (n=401)		NSW (n=530)		ACT (n=44)		Vic (n=457)		Tas (n=31)		SA (n=157)		NT (n=79)		WA (n=213)		Aust (n=1912)		NZ (n=447)	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M
00-04 yrs	1	1	-	-	-	-	-	1	-	-	-	1	-	-	-	-	1	3	-	1
05-14 yrs	-	1	5	2	1	-	3	4	-	-	2	1	-	-	-	1	11	9	2	1
15-24 yrs	3	7	7	10	2	1	2	8	-	-	3	-	2	-	-	7	19	33	3	7
25-34 yrs	4	11	14	12	1	-	8	12	2	3	3	11	3	3	2	6	37	58	12	17
35-44 yrs	13	17	19	24	1	5	18	31	2	2	6	14	5	9	9	18	73	120	18	31
45-54 yrs	23	40	34	47	2	5	24	36	3	-	6	15	11	20	22	20	125	183	30	50
55-64 yrs	40	47	37	53	5	3	32	63	5	4	9	25	10	4	14	29	152	228	47	68
65-74 yrs	43	61	57	84	5	9	55	75	3	5	19	24	6	5	23	16	211	279	40	67
75-84 yrs	27	49	47	66	1	3	28	53	-	1	2	16	-	1	16	28	121	217	21	28
≥ 85 yrs	4	9	1	11	-	-	2	2	1	-	-	-	-	-	-	2	8	24	-	4
Total	158	243	221	309	18	26	172	285	16	15	50	107	37	42	86	127	758	1154	173	274
Mean (yrs)	61.7	61.5	59.2	61.8	52.7	58.8	60.2	59.6	55.4	54.7	54.6	56.8	51.9	50.9	60.7	57.7	59.2	59.7	57.4	57.6
All	61.6		60.7		56.3		59.8		55.1		56.1		51.4		58.9		59.5		57.5	
Median (yrs)	64.1		65.0		57.6		63.5		57.1		59.5		51.8		60.6		62.3		60.1	
Range	2.9-90.1		6.1-92.4		14.7-81.4		0.5-89.2		29.1-87.9		1.8-81.8		19.7-77.6		9.0-91.5		0.5-92.4		3.5-92.2	



Figure 2.6

Incidence rates (95% confidence intervals) for new RRT patients by State. Note different scales for each State.



LATE REFERRAL

There were 28% of all new patients in Australia and 22% in New Zealand who were referred late to nephrological care, i.e. less than three months before first treatment (fig 2.7). This rate has remained similar in Australia for a

number of years, but decreased in New Zealand in 2004. Among the States/Territories the lowest was 18% in South Australia ranging to 41% in the Northern Territory. Variation of this rate with age is shown in Figure 2.8.

Figure 2.7

Late Referral of New Patients 2004										
Number of Patients (% Patients)										
Primary Renal Disease	Qld	NSW	ACT	Vic	Tas	SA	NT	WA	Aust	NZ
YES										
Analgesic	5 (4%)	5 (3%)	-	-	-	-	-	-	10 (2%)	-
Diabetes-I insulin	4 (3%)	2 (1%)	1 (>8%)	6 (5%)	-	-	-	-	13 (2%)	5 (5%)
Diabetes-II ins. req.	21 (18%)	22 (14%)	1 (>8%)	17 (13%)	1 (17%)	2 (7%)	2 (6%)	3 (5%)	69 (13%)	12 (12%)
Diabetes-II non-ins.	13 (11%)	14 (9%)	-	12 (10%)	-	5 (17%)	16 (50%)	17 (29%)	77 (14%)	15 (16%)
Glomerulonephritis	21 (18%)	36 (23%)	7 (58%)	36 (29%)	-	6 (21%)	5 (16%)	16 (28%)	127 (23%)	29 (30%)
Hypertension	13 (11%)	33 (21%)	-	14 (11%)	2 (33%)	5 (17%)	1 (3%)	8 (13%)	76 (14%)	15 (16%)
Miscellaneous	25 (21%)	25 (15%)	1 (>8%)	25 (20%)	2 (33%)	6 (21%)	2 (6%)	9 (16%)	95 (18%)	13 (13%)
Polycystic	7 (6%)	5 (3%)	1 (>8%)	2 (1%)	-	-	-	1 (2%)	16 (3%)	1 (1%)
Reflux	-	5 (3%)	-	3 (2%)	-	-	-	1 (2%)	9 (2%)	-
Uncertain	10 (8%)	13 (8%)	1 (>8%)	11 (9%)	1 (17%)	5 (17%)	6 (19%)	3 (5%)	50 (9%)	7 (7%)
Sub Total	119 (30%)	160 (30%)	12 (27%)	126 (28%)	6 (19%)	29 (18%)	32 (41%)	58 (27%)	542 (28%)	97 (22%)
NO										
Analgesic	20 (7%)	11 (3%)	2 (6%)	-	-	-	-	3 (2%)	36 (3%)	2 (1%)
Diabetes-I insulin	6 (2%)	10 (2%)	2 (6%)	14 (4%)	5 (20%)	6 (5%)	1 (2%)	6 (4%)	50 (4%)	8 (2%)
Diabetes-II ins. req.	36 (13%)	47 (13%)	8 (25%)	55 (16%)	4 (16%)	15 (12%)	3 (6%)	16 (10%)	184 (13%)	70 (20%)
Diabetes-II non-ins.	25 (9%)	36 (10%)	3 (9%)	48 (15%)	2 (8%)	13 (10%)	21 (45%)	35 (23%)	183 (13%)	67 (19%)
Glomerulonephritis	53 (19%)	100 (27%)	7 (22%)	96 (29%)	6 (24%)	38 (30%)	5 (11%)	47 (30%)	352 (26%)	78 (22%)
Hypertension	47 (16%)	58 (16%)	1 (3%)	35 (11%)	3 (12%)	9 (7%)	7 (15%)	20 (13%)	180 (13%)	57 (16%)
Miscellaneous	45 (16%)	43 (12%)	3 (9%)	29 (9%)	1 (4%)	16 (12%)	4 (8%)	11 (7%)	152 (11%)	17 (5%)
Polycystic	25 (9%)	37 (10%)	2 (6%)	19 (6%)	-	16 (12%)	-	11 (7%)	110 (8%)	23 (7%)
Reflux	6 (2%)	12 (3%)	-	17 (5%)	1 (4%)	6 (5%)	-	4 (3%)	46 (3%)	12 (3%)
Uncertain	19 (7%)	16 (4%)	4 (13%)	18 (5%)	3 (12%)	9 (7%)	6 (13%)	2 (1%)	77 (6%)	16 (5%)
Sub Total	282 (70%)	370 (70%)	32 (73%)	331 (72%)	25 (81%)	128 (82%)	47 (59%)	155 (73%)	1370 (72%)	350 (78%)
Total	401 (100%)	530 (100%)	44 (100%)	457 (100%)	31 (100%)	157 (100%)	79 (100%)	213 (100%)	1912 (100%)	447 (100%)



Figure 2.8

**Late Referral - All Modes of Treatment including Pre-emptive Transplants
1-Jan-2000 to 31-Dec-2004**

Country	Age Groups						TOTAL
	0-19	20-44	45-64	65-74	75-84	>=85	
AUSTRALIA							
NO	174 (75%)	1218 (72%)	1151 (75%)	1431 (76%)	1833 (76%)	1216 (71%)	7024 (74%)
YES	57 (25%)	466 (28%)	379 (25%)	453 (24%)	582 (24%)	503 (29%)	2440 (26%)
TOTAL	231 (100%)	1684 (100%)	1530 (100%)	1884 (100%)	2415 (100%)	1719 (100%)	9464 (100%)
NEW ZEALAND							
NO	44 (64%)	305 (72%)	352 (78%)	486 (77%)	350 (72%)	147 (71%)	1684 (74%)
YES	25 (36%)	118 (28%)	99 (22%)	145 (23%)	133 (28%)	60 (29%)	580 (26%)
TOTAL	69 (100%)	423 (100%)	451 (100%)	631 (100%)	483 (100%)	207 (100%)	2264 (100%)

LATE REFERRAL RELATED TO TREATMENT

Late referral is associated with substantially higher rates of central venous catheter use at first dialysis (among the group in whom haemodialysis was the first renal replacement therapy) (fig 2.9).

Late Referral rates have been constant over time, and are similar between Australia and New Zealand (fig 2.10). In both countries, late referrals are higher for indigenous people (fig 2.11).

Figure 2.9

**Late Referral
Haemodialysis as Initial Modality
2004**

Access in Use at First Dialysis	Country	
	AUST	NZ
Late Referral = NO		
Native	460 (48%)	76 (41%)
Synthetic	29 (3%)	2 (1%)
Tunnelled CVC	297 (31%)	45 (24%)
Non-Tunnelled CVC	166 (18%)	64 (34%)
Total	952 (100%)	187 (100%)
Late Referral = YES		
Native	46 (10%)	7 (9%)
Synthetic	8 (2%)	-
Tunnelled CVC	223 (47%)	28 (35%)
Non-Tunnelled CVC	195 (41%)	44 (56%)
Total	472 (100%)	79 (100%)

CVC = Central Venous Catheter

Figure 2.10
**Late Referral - All Modes of Treatment including Pre-emptive Transplants
2000 to 2004**

Country	Years					TOTAL
	2000	2001	2002	2003	2004	
AUSTRALIA						
NO	1322 (75%)	1471 (77%)	1399 (74%)	1462 (74%)	1370 (72%)	7024 (74%)
YES	434 (25%)	440 (23%)	501 (26%)	523 (26%)	542 (28%)	2440 (26%)
TOTAL	1756 (100%)	1911 (100%)	1900 (100%)	1985 (100%)	1912 (100%)	9464 (100%)
NEW ZEALAND						
NO	305 (72%)	351 (75%)	341 (73%)	337 (73%)	350 (78%)	1684 (74%)
YES	117 (28%)	116 (25%)	126 (27%)	124 (27%)	97 (22%)	580 (26%)
TOTAL	422 (100%)	467 (100%)	467 (100%)	461 (100%)	447 (100%)	2264 (100%)

Figure 2.11
**Late Referral - All Modes of Treatment including Pre-emptive Transplants
By Race 2000 to 2004**

Country	Race					
	Asian	Aboriginal/TSI	Caucasoid	Maori	Pacific People	Other
AUSTRALIA						
NO	483 (68%)	544 (63%)	5829 (76%)	32 (64%)	64 (49%)	72 (77%)
YES	227 (32%)	313 (37%)	1795 (24%)	18 (36%)	66 (51%)	21 (23%)
TOTAL	710 (100%)	857 (100%)	7624 (100%)	50 (100%)	130 (100%)	93 (100%)
NEW ZEALAND						
NO	104 (81%)		855 (79%)	493 (70%)	229 (67%)	
YES	25 (19%)	*	224 (21%)	214 (30%)	113 (33%)	*
TOTAL	129 (100%)		1079 (100%)	707 (100%)	342 (100%)	

* Numbers are too small for analysis



Figure 2.12

**Late Referral - Initial Treatment and Treatment at 90 days
All Modes of Treatment including Pre-emptive Transplants
1-Jan-2000 to 31-Dec-2004**

Country	Late Referral	Mode of Treatment			TOTAL
		Haemodialysis	All Peritoneal Dialysis	Transplants	
AUSTRALIA					
Initial Treatment	NO	1895 (81%)	4866 (71%)	263 (99%)	7024 (74%)
	YES	434 (19%)	2002 (29%)	3 (1%)	2439 (26%)
	TOTAL	2329 (100%)	6868 (100%)	266 (100%)	9463 (100%)
Treatment at 90 Days	NO	2206 (74%)	3963 (74%)	323 (95%)	6492 (75%)
	YES	763 (26%)	1410 (26%)	16 (5%)	2189 (25%)
	TOTAL	2969 (100%)	5373 (100%)	339 (100%)	8681 (100%)
NEW ZEALAND					
Initial Treatment	NO	691 (86%)	929 (67%)	62 (100%)	1682 (74%)
	YES	114 (14%)	466 (33%)	-	580 (26%)
	TOTAL	805 (100%)	1395 (100%)	62 (100%)	2262 (100%)
Treatment at 90 Days	NO	795 (77%)	715 (72%)	67 (97%)	1577 (75%)
	YES	242 (23%)	278 (28%)	2 (3%)	522 (25%)
	TOTAL	1037 (100%)	993 (100%)	69 (100%)	2099 (100%)

CO-MORBID CONDITIONS

Co-morbid conditions at entry to RRT are shown in Figure 2.13. The incidence of Type II Diabetes continues to be more common in New Zealand (37% of new patients), than

in Australia (27% of new patients). (See Appendix II and III for further analyses of co-morbid conditions).

Figure 2.13

**Co-morbid Conditions at Entry to Program 2004
Number of Patients (% Patients)**

Country		Chronic Lung Disease	Coronary Artery Disease	Peripheral Vascular Disease	Cerebro-vascular Disease	Smoking	Diabetes (Including Diabetic Nephropathy)
Aust. n=1912	Yes	214 (11%)	598 (31%)	338 (18%)	180 (10%)	Current 239 (13%)	I 70 (4%)
	Suspected	63 (3%)	134 (7%)	134 (7%)	64 (3%)	Former 737 (38%)	II-ins.requ. 300 (16%)
	No	1635 (86%)	1180 (62%)	1440 (75%)	1668 (87%)	Never 935 (49%)	II-non-ins. 432 (22%)
						Unknown 1 (<1%)	No 1110 (58%)
N.Z. n=447	Yes	55 (13%)	123 (28%)	69 (15%)	50 (11%)	Current 75 (17%)	I 13 (3%)
	Suspected	11 (2%)	27 (6%)	18 (4%)	9 (2%)	Former 201 (45%)	II-ins.requ. 89 (20%)
	No	381 (85%)	297 (66%)	360 (81%)	388 (87%)	Never 171 (38%)	II-non-ins. 99 (22%)
							No 246 (55%)

PRIMARY RENAL DISEASE OF NEW PATIENTS

AUSTRALIA

For the first time in Australia, in 2004, **diabetic nephropathy** (30%) of all new patients, overtook glomerulonephritis (25%) as the main cause of primary renal disease.

Diabetic nephropathy (excluding diabetics with renal failure due to other causes) and **glomerulonephritis** were the most common causes of ESRD (30% and 25% respectively), followed by hypertension (13%), polycystic kidney disease (7%), reflux nephropathy (3%) and analgesic nephropathy (2%). The number of **analgesic nephropathy** patients in 2004 was the lowest ever recorded (46 patients) (fig 2.14).

IgA mesangioliferative glomerulonephritis (25% of all GN) was the most common histologically proven form of glomerulonephritis (32% of biopsy proven glomerulonephritis), followed by **systemic disease** (15%) and **focal sclerosing GN** (12%) (fig 2.15).

Amongst the **miscellaneous diseases** causing end stage renal failure, there were ten cases attributed to lithium toxicity and nine to cyclosporin nephrotoxicity (fig 2.16).

A **renal biopsy** based diagnosis was reported in 31% of cases: glomerulonephritis 76%, hypertension 17%, diabetes (types I and II) 13%, reflux 5%, analgesic nephropathy 4% and polycystic kidney disease 2% (fig 2.17). The biopsy rate in Australia continues to decline (fig.2.18), although it remains steady for those with a primary diagnosis of glomerulonephritis.

NEW ZEALAND

Diabetic nephropathy (40%) was the most common cause of ESRD followed by glomerulonephritis (24%) and hypertension (16%).

Diabetes Type II (non-insulin and insulin requiring) represented 93% of diabetic nephropathy.

Focal sclerosing (19%) and **IgA mesangioliferative** (17%), represented 49% of biopsy proven glomerulonephritis.

Biopsy rates (26%) were lower than those in Australia (31%) in 2004.

Figure 2.14

Causes of ESRD 2001 - 2004				
Number of Patients (% Patients)				
Disease	2001	2002	2003	2004
Australia				
Glomerulonephritis	513 (27%)	509 (27%)	537 (27%)	479 (25%)
Analgesic Nephropathy	100 (5%)	79 (4%)	72 (4%)	46 (2%)
Polycystic Kidney	108 (6%)	108 (6%)	113 (5%)	126 (7%)
Reflux Nephropathy	77 (4%)	73 (4%)	74 (4%)	55 (3%)
Hypertension	277 (14%)	301 (16%)	301 (15%)	256 (13%)
Diabetic Nephropathy	483 (25%)	508 (27%)	512 (26%)	576 (30%)
Miscellaneous	211 (11%)	209 (11%)	236 (12%)	247 (13%)
Uncertain Diagnosis	142 (8%)	113 (5%)	140 (7%)	127 (7%)
Total	1911 (100%)	1900 (100%)	1985 (100%)	1912 (100%)
New Zealand				
Glomerulonephritis	130 (28%)	110 (24%)	117 (25%)	107 (24%)
Analgesic Nephropathy	-	2 (<1%)	-	2 (<1%)
Polycystic Kidney	29 (6%)	20 (4%)	22 (5%)	24 (5%)
Reflux Nephropathy	12 (3%)	17 (3%)	10 (2%)	12 (3%)
Hypertension	56 (12%)	40 (9%)	44 (10%)	72 (16%)
Diabetic Nephropathy	177 (38%)	208 (45%)	189 (41%)	177 (40%)
Miscellaneous	39 (8%)	52 (11%)	47 (10%)	30 (7%)
Uncertain Diagnosis	24 (5%)	18 (4%)	32 (7%)	23 (5%)
Total	467 (100%)	467 (100%)	461 (100%)	447 (100%)

Figure 2.15

Types of Glomerulonephritis		
1-Jan-2004 to 31-Dec-2004		
Number (% of all GN)		
	Australia	New Zealand
Presumed GN - No Biopsy performed	111 (23%)	28 (26%)
Focal Sclerosing	56 (12%)	20 (19%)
MCGN - Type I	18 (4%)	4 (4%)
MCGN - Type II	2 (<1%)	1 (<1%)
Membranous GN	18 (4%)	5 (5%)
Rapidly Progressive GN	9 (2%)	2 (2%)
Mesangioliferative IgA +	118 (25%)	18 (17%)
Mesangioliferative IgA -	5 (1%)	3 (3%)
Mesangioliferative No I.F.	3 (<1%)	-
Focal & Segmental Proliferative GN	24 (5%)	4 (4%)
Advanced GN (end-stage type)	13 (3%)	1 (<1%)
Goodpasture's Syndrome	6 (1%)	2 (2%)
Systemic Lupus	23 (5%)	5 (5%)
Henoch-Schonlein Purpura	1 (<1%)	-
Wegener's Granulomatosis	8 (2%)	2 (2%)
Microscopic Polyarteritis	17 (4%)	1 (<1%)
Scleroderma	13 (3%)	2 (2%)
GN Other	19 (4%)	5 (5%)
Familial GN (including Alports)	11 (2%)	1 (<1%)
Anti GBM (no haemoptysis)	2 (<1%)	2 (2%)
GN (with systemic disease)	2 (<1%)	1 (<1%)
Total	479 (100%)	107 (100%)

Figure 2.16

Miscellaneous Causes of ESRD
1-Jan-2004 to 31-Dec-2004
 Number (% of all GN)

Renal Disease	Aust (247)	NZ (30)	Renal Disease	Aust (247)	NZ (30)
Interstitial Nephritis	27	2	Medullary Cystic Disease	12	-
Lithium Toxicity	10	1	Calculi	10	2
Cyclosporin Nephrotoxicity	9	-	Cystinosis	1	-
Lead Nephropathy	3	-	Infantile Cystic Disease	1	-
Pyelonephritis	3	-	Medullary Sponge Kidney	-	1
Amphotericin Toxicity	1	-	Renal Artery Stenosis - Single Kidney	1	-
Cardiac Pump Failure	1	-	Amyloid	14	2
Dicloxacillin Nephrotoxicity	1	-	Congenital Renal Hypoplasia & Dysplasia	14	2
Chinese Herbal Nephropathy	1	-	Light Chain Nephropathy (Benign)	2	-
Glomerulomegaly Syndrome	1	-	Juvenile Hyperuricaemic Nephropathy	-	1
HIV Nephropathy	1	-	Multiple Myeloma	39	6
Hypercalcaemia	1	-	Transitional Cell Carcinoma	10	-
Laurence-Moon-Beidl Syndrome	1	-	Renal Cell Carcinoma	4	1
Loss Single Kidney	1	-	Metastatic Testicular Neoplasm	1	-
Renal Tuberculosis	1	-	Radiation Contrast - Post Non Hodgkins	1	-
Severe Biventricular Cardiac Failure	1	-	Secondary to Chemotherapy	1	-
Severe Congestive Cardiac Failure	1	-	Vipoma	1	-
Streptomycin Toxicity	1	-	Waldenstrom's Macroglobulinaemia	1	-
Tacrolimus Toxicity	-	1			
Obstructive Nephropathy	26	2	Cortical Necrosis	11	2
Ureteric Obstructive Nephropathy	10	1	Haemolytic Uraemic Syndrome	6	2
Posterior Urethral Valves	4	1	Acute Tubular Necrosis	3	-
Bladder Neck Obstruction	3	-	Nephrocalcinosis	-	1
Lower Urinary Tract Abnormalities	2	1	Post Partum Nephropathy	1	-
Multiple Vesicorectal Fistulae (1)					
Prune Belly Syndrome (1)					
Triad Syndrome (1)					
Megaureter	1	-			
Pelvic Ureteric Junction Obstruction	1	1			
Spina Bifida or Myelomeningocele	1	-			

Figure 2.17

Biopsy of New Patients 2004											
Biopsy	Primary Renal Disease	Qld	NSW	ACT	Vic	Tas	SA	NT	WA	Aust	NZ
Yes	Analgesic	1	1	-	-	-	-	-	-	2	1
	Diabetes I - Insulin	2	4	-	2	1	1	-	-	10	-
	Diabetes II - Insulin Req.	4	9	2	13	-	1	-	2	31	10
	Diabetes II - Non-Insulin	4	8	-	14	-	2	2	2	32	4
	Glomerulonephritis	63	93	11	103	5	41	4	45	365	77
	Hypertension	10	15	-	10	1	5	-	3	44	11
	Miscellaneous	28	22	1	24	-	5	1	6	87	11
	Polycystic	-	1	-	1	-	-	-	1	3	-
	Reflux	-	-	-	3	-	-	-	-	3	-
	Uncertain	2	1	1	2	1	1	1	-	9	2
	Sub Total	114	154	15	172	8	56	8	59	586	116
No	Analgesic	24	15	2	-	-	-	-	3	44	1
	Diabetes I - Insulin	8	8	3	18	4	5	1	6	53	13
	Diabetes II - Insulin Req.	53	60	7	59	5	16	5	17	222	72
	Diabetes II - Non-Insulin	34	42	3	46	2	16	35	50	228	78
	Glomerulonephritis	11	43	3	29	1	3	6	18	114	30
	Hypertension	50	76	1	39	4	9	8	25	212	61
	Miscellaneous	42	46	3	30	3	17	5	14	160	19
	Polycystic	32	41	3	20	-	16	-	11	123	24
	Reflux	6	17	-	17	1	6	-	5	52	12
	Uncertain	27	28	4	27	3	13	11	5	118	21
	Sub Total	287	376	29	285	23	101	71	154	1326	331
	Total	401	530	44	457	31	157	79	213	1912	447

Seventeen per cent of all patients with diabetic nephropathy in Australia (595/3518) and 6% (73/1311) in New Zealand, have had a biopsy proven diagnosis since this data was first collected by the Registry from 1st April, 1997.

Figure 2.18
