INTEGRATED SURVIVAL

RISK FACTORS FOR SURVIVAL DURING END STAGE RENAL FAILURE TREATMENT

A summary of an extensive recent analysis of risk factors showed a notable improvement in survival of all patients, especially amongst the young. Unfortunately the survival of non-Caucasoid patients was significantly lower in Australia and New Zealand, especially amongst the young. This deficit was evident in similar measure in both patients with diabetic nephropathy or with glomerulonephritis confirming a non-renal factor in poor survival.

As expected, the influence of vascular disease on survival was significant but larger numbers of patients will be required to extend analysis of the comorbid factor effect on survival.

YEAR OF FIRST TREATMENT

(1967-76; 1977-86; 1987-96) See Figures 74 and 83.

The decade of initial treatment influenced early survival but had very limited effect on 10 year survival of the three patient groups as a whole. The changing demography in regard to age, primary renal disease and race produced consequent increases in the magnitude of risk. In reality most patients treated in the first decade would have enjoyed a higher life expectancy if their treatment had been delayed until the third decade.

Age (1967-76; 1977-86; 1987-96) See Figures 75 and 84.

There was a definite improvement in age related survival in more recent years; the least benefit accrued in the long term survival of middle aged patients and elderly patients. **RACE** (1987-96) See Figures 76 and 85.

The survival results of Caucasoid patients in Australia and in New Zealand were similar and significantly higher than Aboriginal and Maori patients; the Aboriginal survival was significantly better than that of the Maori patients.

PRIMARY RENAL DISEASE

See Figures 77 and 86.

As previously reported, there was similar survival for patients with glomerulonephritis or polycystic renal disease, those with reflux nephropathy were significantly better, and those with analgesic, diabetic, or "hypertensive" nephropathy were equally significantly worse.

AGE AND RACE

See Figures 78 and 87.

The lower survival expectation for Aboriginal and Maori patients was more evident in the younger patients; the five year survival differential was 20-30% compared to Caucasoid patients in Australia and New Zealand. The Australian Caucasoid survival was significantly better than for New Zealand, except in the young patients.

AGE AND PRIMARY RENAL DISEASE

See Figures 79-81 and 88.

For more valid comparison of changes in survival in relation to primary renal disease, patients of similar age should be compared. The treatment policies of the first decade 1967-76 saw only a limited number of middle aged and elderly patients treated. See Figures 79 and 81.

Therefore comparison has been limited to younger patients with glomerulonephritis as a benchmark group.

The major gain in survival in this group (see Figure 79) occurred in the second decade which may reflect the more successful outcome for transplantation and the improved dialysis equipment and staff expertise. No real gain was seen in the third decade.

A group showing significance in the third decade compared to the second decade, was the young diabetics whose median survival time almost doubled. See Figure 88.

The middle aged polycystic renal disease group saw a highly significant increase in survival over the last two decades. To a lesser extent those with analgesic nephropathy benefited over the same period. See Figure 88.

The late middle aged and especially the elderly patients with glomerulonephritis did not experience any major significant gain in the last two decades. Those with analgesic nephropathy benefited in the elderly group, not in the high intake middle aged group. Diabetic patients in the late middle age group had a significant increase in expectation of survival, but were still well below those with analgesic nephropathy. See Figure 88.

Age, Race and Primary Renal Disease See Figures 82 and 89.

Because most Aboriginal patients reportedly have glomerulonephritis or diabetic nephropathy, comparisons with Caucasoid patients were limited to these two diseases, and to younger patients.

In the 25-44 year age group (see Figure 89), there was no significant difference between Aboriginal patients with glomerulonephritis or diabetic nephropathy. In contrast, there was a much more rapid decline in survival of Caucasoid patients with diabetic nephropathy than with glomerulonephritis.

Racial comparison of those with glomerulonephritis showed an early and marked difference in favour of the Caucasoid patients. Similar comparison of those with diabetic nephropathy showed a much smaller difference in favour of the same group. Risk factors associated with Aboriginality, genetics, and/or environmental, appeared to be more important than renal disease type.

In the 45-54 year age group (see Figure 89), Aboriginals with diabetic nephropathy had a much lower five year survival than those with glomerulonephritis; a difference of similar scale was seen in the Caucasoid patients. Comparison of glomerulonephritis patients in relation to race, showed much higher survival for the Caucasoid group, and, of diabetic nephropathy patients showed reasonably close results at three years but considerably worse at five years.

VASCULAR DISEASE (AGE 55-74 YEARS) See Figures 90 and 91.

The influence of vascular damage especially that relating to the heart was analysed for the age groups 55-64 years and 65-74 years, in which fatal events were more common. These analyses were limited to Caucasoid patients; inadequate numbers of Aboriginal or Asian patients were available for useful comparison.

The incidence of cardiac or peripheral vascular disease in the two age groups is shown in Figure 90; half of the younger group but only a third of the older group were reportedly without significant vascular disease at first treatment.

The effect of coronary disease on survival was significant in both age groups (see Figure 91), and increased 5-10% with a history of reformed or current cigarette smoking.

Figure 74

Australia and New Zealand

Integrated Patient Survival 1967 - 1976; 1977 - 1986; 1987 - 1996 Related to Year of First Treatment

Venue	No. of			Surviv	al		
Years	Pts.	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years
Australia							
1967 - 1976	2806	81 ± 0.8 2262	63 ± 0.9 1770	54 ± 0.9 1498	39 ± 0.9 1094	29 <u>+</u> 0.9 812	22 <u>+</u> 0.8 589
1977 - 1986	5736	89 <u>+</u> 0.4 5084	72 <u>+</u> 0.6 4126	60 <u>+</u> 0.7 3457	42 <u>+</u> 0.7 2400	32 <u>+</u> 0.7 827	24 <u>+</u> 1.0 18
1987 -1996	10751	97 <u>+</u> 0.2 10456	90 <u>+</u> 0.3 8615	57 <u>+</u> 0.6 2649	41 <u>+</u> 1.0 70	-	-

New Zealand													
1967 - 1976	469	94 <u>+</u> 1.1	439	80 <u>+</u> 1.9	374	49 <u>+</u> 2.3	229	36 <u>+</u> 2.2	168	29 <u>+</u> 2.1	134	21 <u>+</u> 1.9	96
1977 - 1986	1024	97 <u>+</u> 0.6	990	89 <u>+</u> 1.0	907	61 <u>+</u> 1.5	624	44 <u>+</u> 1.6	445	31 <u>+</u> 1.6	160	25 <u>+</u> 2.5	5
1987 -1996	2170	98 <u>+</u> 0.3	2122	90 <u>+</u> 0.7	1753	51 ± 1.3	472	35 <u>+</u> 2.1	19	-		-	

[%] Survival ± S.E. / Number at Risk

Figure 75 Australia and New Zealand
Integrated Patient Survival 1967 - 1976; 1977 - 1986; 1987 - 1996
Related to Age Groups

Years	Age	No. of					Survival					
Tears	Groups	Pts	3 Months	5	6 Months	6 Months			3 Years	3 Years		1
Australia												
1967-76	25-44	1194	95 <u>+</u> 0.6	1138	90 <u>+</u> 0.8	1077	84 <u>+</u> 1.1	1003	69 <u>+</u> 1.3	821	61 <u>+</u> 1.4	722
	45-54	872	93 <u>+</u> 0.9	808	86 <u>+</u> 1.2	750	75 <u>+</u> 1.5	653	55 ± 1.7	480	43 ± 1.7	378
	55-64	294	93 <u>+</u> 1.5	273	85 <u>+</u> 2.1	251	74 <u>+</u> 2.5	219	47 ± 3.0	137	32 ± 2.7	94
	65-74	29	83 <u>+</u> 7.0	24	79 <u>+</u> 7.5	23	59 <u>+</u> 9.2	17	41 <u>+</u> 9.2	12	31 <u>+</u> 8.6	9
1977-86	25-44	1639	99 <u>+</u> 0.3	1620	97 <u>+</u> 0.4	1586	93 <u>+</u> 0.6	1527	83 <u>+</u> 0.9	1354	77 <u>+</u> 1.0	1261
	45-54	1402	97 <u>+</u> 0.4	1363	95 <u>+</u> 0.6	1327	89 <u>+</u> 0.8	1252	72 <u>+</u> 1.2	1015	59 <u>+</u> 1.3	834
	55-64	1475	97 <u>+</u> 0.5	1425	93 <u>+</u> 0.7	1367	85 <u>+</u> 0.9	1247	60 <u>+</u> 1.3	883	42 <u>+</u> 1.3	623
	65-74	514	94 <u>+</u> 1.0	484	89 <u>+</u> 1.4	455	75 <u>+</u> 1.9	384	47 <u>+</u> 2.2	240	27 <u>+</u> 2.0	137
1987-96	25-44	2395	99 <u>+</u> 0.2	2368	98 <u>+</u> 0.3	2334	96 <u>+</u> 0.4	2280	87 ± 0.7	1653	80 <u>+</u> 0.9	1091
	45-54	1886	98 <u>+</u> 0.3	1854	96 <u>+</u> 0.4	1806	92 <u>+</u> 0.6	1733	78 <u>+</u> 1.0	1139	66 <u>+</u> 1.2	652
	55-64	2662	97 <u>+</u> 0.3	2584	94 <u>+</u> 0.4	2512	88 <u>+</u> 0.6	2336	63 <u>+</u> 1.0	1329	47 <u>+</u> 1.1	725
	65-74	2504	95 <u>+</u> 0.4	2389	91 <u>+</u> 0.6	2285	83 <u>+</u> 0.7	2084	51 <u>+</u> 1.1	919	29 <u>+</u> 1.1	329

New Zeala	nd											
1967-76	25-44	234	95 <u>+</u> 1.4	222	92 <u>+</u> 1.7	216	83 <u>+</u> 2.4	195	62 <u>+</u> 3.2	145	53 <u>+</u> 3.3	123
	45-54	105	91 <u>+</u> 2.7	96	82 <u>+</u> 3.8	86	71 <u>+</u> 4.4	75	41 <u>+</u> 4.8	43	34 <u>+</u> 4.6	36
	55-64	33	94 <u>+</u> 4.2	31	91 ± 5.0	30	79 <u>+</u> 7.1	26	45 <u>+</u> 9.0	15	33 ± 8.2	11
1977-86	25-44	360	97 <u>+</u> 1.0	348	94 <u>+</u> 1.2	339	91 <u>+</u> 1.5	329	81 <u>+</u> 2.1	290	70 ± 2.4	253
	45-54	244	95 <u>+</u> 1.3	233	93 <u>+</u> 1.7	226	86 <u>+</u> 2.2	210	61 ± 3.1	150	50 ± 3.2	122
	55-64	188	97 <u>+</u> 1.2	183	94 <u>+</u> 1.8	176	80 <u>+</u> 2.9	151	53 ± 3.6	99	39 ± 3.6	72
	65-74	41	93 <u>+</u> 4.1	38	90 ± 4.6	37	78 <u>+</u> 6.5	32	54 <u>+</u> 7.8	22	29 <u>+</u> 7.1	12
1987-96	25-44	549	100 ± 0.2	548	99 <u>+</u> 0.5	542	95 <u>+</u> 1.0	519	82 <u>+</u> 1.7	362	74 <u>+</u> 2.1	222
	45-54	524	99 <u>+</u> 0.5	517	97 <u>+</u> 0.8	506	92 <u>+</u> 1.2	481	67 ± 2.2	254	48 ± 2.6	136
	55-64	561	96 <u>+</u> 0.8	539	93 <u>+</u> 1.1	518	87 <u>+</u> 1.4	488	55 <u>+</u> 2.2	243	33 <u>+</u> 2.3	95
	65-74	292	97 <u>+</u> 1.0	284	92 <u>+</u> 1.6	268	81 <u>+</u> 2.3	237	45 ± 3.1	89	18 <u>+</u> 2.9	25

% Survival $\underline{+}$ S.E. / Number at Risk

Figure 76

Australia and New Zealand

Integrated Survival 1987 - 1996 Related to Race

Race	No. of	Survival									
Kace	Pts.	1 Year	3 Years	5 Years	10 Years						
Australia											
Aboriginal	678	84 <u>+</u> 1.4 516	60 <u>+</u> 2.1 239	46 <u>+</u> 2.5 112	30 <u>+</u> 4.4 3						
Caucasoid	9076	90 <u>+</u> 0.3 7320	70 <u>+</u> 0.5 4176	57 <u>+</u> 0.6 2305	41 <u>+</u> 1.0 65						

New Zealand					
Caucasoid	1153	90 ± 0.9 1040	69 <u>+</u> 1.4 626	57 <u>+</u> 1.6 384	41 <u>+</u> 2.4 53
Maori	675	88 <u>+</u> 1.3 591	55 <u>+</u> 2.0 278	31 <u>+</u> 2.2 101	16 <u>+</u> 2.5 11
Pacific Islander	241	95 <u>+</u> 1.3 230	77 <u>+</u> 2.9 141	63 <u>+</u> 3.6 76	38 <u>+</u> 5.4 7

% Survival \pm S.E. / Number at Risk

Figure 77

Australia and New Zealand

Integrated Survival 1987 - 1996 Related to Primary Renal Disease

B	No. of		Survi	ival	
Primary Renal Disease	Pts.	1 Year	3 Years	5 Years	10 Years
Australia					
Glomerulonephritis	3804	93 <u>+</u> 0.4 3165	79 ± 0.7 1972	67 ± 0.9 1133	53 <u>+</u> 1.6 28
Reflux Nephropathy	628	97 <u>+</u> 0.7 557	89 <u>+</u> 1.3 398	85 <u>+</u> 1.6 262	74 <u>+</u> 3.2 13
Diabetic Nephropathy	1637	85 <u>+</u> 0.9 1197	54 <u>+</u> 1.5 490	38 <u>+</u> 1.6 202	20 <u>+</u> 17.6 2
Polycystic Kidney Disease	855	95 <u>+</u> 0.8 731	83 <u>+</u> 1.4 454	74 <u>+</u> 1.8 278	56 <u>+</u> 4.0 10
Analgesic Nephropathy	1034	88 <u>+</u> 1.0 847	61 ± 1.6 472	42 <u>+</u> 1.8 234	21 <u>+</u> 2.6 3
Hypertension	938	83 <u>+</u> 1.3 670	55 <u>+</u> 1.9 297	38 <u>+</u> 2.1 126	22 <u>+</u> 2.5 3
Other	1855	86 <u>+</u> 0.8 1448	64 <u>+</u> 1.2 778	50 <u>+</u> 1.4 414	33 <u>+</u> 1.9 11

New Zealand									
Glomerulonephritis	615	93 <u>+</u> 1.0	571	82 <u>+</u> 1.6	389	73 <u>+</u> 2.0	248	49 ± 3.6	
Reflux Nephropathy	134	98 <u>+</u> 1.3	131	84 <u>+</u> 3.3	95	81 <u>+</u> 3.6	73	65 <u>+</u> 7.1	
Diabetic Nephropathy	671	87 <u>+</u> 1.3	585	50 <u>+</u> 2.1	240	24 <u>+</u> 2.1	68	15 <u>+</u> 2.5	
Polycystic Kidney Disease	161	98 <u>+</u> 1.2	157	89 <u>+</u> 2.5	113	74 <u>+</u> 4.0	75	52 <u>+</u> 6.8	
Analgesic Nephropathy	18	94 <u>+</u> 5.4	17	54 <u>+</u> 12.1	9	42 <u>+</u> 12.0	6	26 <u>+</u> 12.0	
Hypertension	266	83 <u>+</u> 2.3	222	53 ± 3.2	105	30 ± 3.3	42	13 ± 4.0	

% Survival \pm S.E. / Number at Risk

25-44

45-54

55-64

Maori

145

220

226

100 ± 0.0 145

99 <u>+</u> 0.8 217

95 <u>+</u> 1.4 214

1987 - 1996 **Integrated Patient Survival** Related to Age and Race

Done	Age	No. of					Survival					
Race	Groups in Yrs	Pts.	3 Monti	าร	6 Month	s	1 Year		3 Years	3	5 Years	
Australia												
	25-44	271	97 <u>+</u> 1.0	262	94 <u>+</u> 1.5	247	90 <u>+</u> 1.9	220	69 <u>+</u> 3.2	111	54 <u>+</u> 3.9	58
Aboriginal	45-54 55-64	194 133	94 ± 1.7 93 ± 2.2	183 124	87 <u>+</u> 2.4 89 <u>+</u> 2.8	160 115	81 ± 2.8 77 ± 3.7	143 90	52 ± 4.0 50 ± 5.0	59 34	35 ± 4.5 37 ± 6.4	21 10
	25-44	1810	99 <u>+</u> 0.2	1795	98 <u>+</u> 0.3	1730	96 <u>+</u> 0.4	1594	89 <u>+</u> 0.8	1111	84 <u>+</u> 1.0	730
Caucasoid	45-54 55-64	1488 2305	98 ± 0.3 97 ± 0.3	1463 2243	-	1414 2125	94 ± 0.6 88 ± 0.7	1265 1865	81 <u>+</u> 1.1 64 <u>+</u> 1.0	808 1025	70 ± 1.4 48 ± 1.3	477 528
	65-74	2311	95 <u>+</u> 0.4	2201	91 <u>+</u> 0.6	2017	84 <u>+</u> 0.8	1679	51 <u>+</u> 1.2	693	29 <u>+</u> 1.3	236
New Zealand												ĺ
	25-44	284	100 <u>+</u> 0.3	283	99 <u>+</u> 0.7	269	96 <u>+</u> 1.1	251	88 <u>+</u> 2.1	176	85 <u>+</u> 2.5	113
Caucasoid	45-54 55-64	218 257	99 <u>+</u> 0.8 96 <u>+</u> 1.2	214 247	97 <u>+</u> 1.1 93 <u>+</u> 1.6	202 236	92 <u>+</u> 1.9 89 <u>+</u> 2.0	175 215	69 <u>+</u> 3.6 60 <u>+</u> 3.4	93 106	60 ± 4.0 44 ± 3.8	64 50
	65-74	218	97 <u>+</u> 1.1	212	91 <u>+</u> 2.0	188	81 <u>+</u> 2.7	155	47 <u>+</u> 3.9	58	22 <u>+</u> 3.8	18

% Survival \pm S.E. / Number at Risk

99 <u>+</u> 0.7 139

96 <u>+</u> 1.4 206

90 <u>+</u> 2.0 200

90 <u>+</u> 2.5 119

90 <u>+</u> 2.0 182

83 <u>+</u> 2.6 163

65 <u>+</u> 4.5 61

56 <u>+</u> 3.8 74 45 <u>+</u> 3.8 60

47 ± 5.5 24 27 <u>+</u> 4.0 25

17 <u>+</u> 3.7

9

Figure 79 **Australia**

Integrated Survival 1977 - 1986 Related to Age and Primary Renal Disease

	No. of	Survival									
Primary Renal Disease	Pts.	1 Yea	r	3 Years		5 years					
Age 25-44 years											
Glomerulonephritis	710	96 <u>+</u> 0.7	679	90 <u>+</u> 1.1	634	87 <u>+</u> 1.3	612				
Reflux Nephropathy	194	97 <u>+</u> 1.1	189	94 <u>+</u> 1.7	182	92 <u>+</u> 2.0	178				
Diabetic Nephropathy	205	82 <u>+</u> 2.7	169	57 <u>+</u> 3.5	116	46 <u>+</u> 3.5	95				
Polycystic Kidney Disease	128	98 <u>+</u> 1.3	125	91 <u>+</u> 2.6	116	88 <u>+</u> 3.0	112				
Analgesic Nephropathy	135	90 <u>+</u> 2.5	122	70 <u>+</u> 3.9	95	57 <u>+</u> 4.3	76				
Hypertension	73	90 <u>+</u> 3.5	66	75 <u>+</u> 5.0	55	63 <u>+</u> 5.7	46				
Other	194	91 <u>+</u> 2.0	177	80 <u>+</u> 2.9	156	74 <u>+</u> 3.2	142				
Age 45-54 years											
Glomerulonephritis	426	90 <u>+</u> 1.5	383	76 <u>+</u> 2.1	324	63 <u>+</u> 2.3	270				
Reflux Nephropathy	38	97 <u>+</u> 2.6	37	95 <u>+</u> 3.6	36	92 <u>+</u> 4.4	35				
Diabetic Nephropathy	93	80 <u>+</u> 4.2	74	51 <u>+</u> 5.2	47	28 <u>+</u> 4.7	26				
Polycystic Kidney Disease	212	94 <u>+</u> 1.6	200	80 <u>+</u> 2.8	169	72 <u>+</u> 3.2	153				
Analgesic Nephropathy	346	89 <u>+</u> 1.7	308	69 <u>+</u> 2.5	239	56 <u>+</u> 2.7	194				
Hypertension	78	85 <u>+</u> 4.0	66	63 <u>+</u> 5.5	49	44 <u>+</u> 5.6	34				
Other	209	88 <u>+</u> 2.2	184	72 <u>+</u> 3.1	151	58 <u>+</u> 3.4	122				
Age 55-64 years											
Glomerulonephritis	377	87 <u>+</u> 1.7	329	68 <u>+</u> 2.4	256	51 <u>+</u> 2.6	194				
Reflux Nephropathy	36	89 <u>+</u> 5.2	32	69 <u>+</u> 7.7	25	47 <u>+</u> 8.3	17				
Diabetic Nephropathy	83	72 <u>+</u> 4.9	60	29 <u>+</u> 5.0	24	8 <u>+</u> 3.1	7				
Polycystic Kidney Disease	161	90 <u>+</u> 2.4	145	73 <u>+</u> 3.5	118	55 <u>+</u> 3.9	88				
Analgesic Nephropathy	444	84 <u>+</u> 1.7	375	57 <u>+</u> 2.4	251	39 <u>+</u> 2.3	171				
Hypertension	96	80 ± 4.0	77	53 ± 5.0	51	33 <u>+</u> 4.8	32				
Other	278	82 <u>+</u> 2.3	229	57 <u>+</u> 3.0	158	41 <u>+</u> 3.0	114				

% Survival $\underline{+}$ S.E. / Number at Risk

Figure 80 Australia

Integrated Survival 1967 - 1976; 1977 - 1986; 1987 - 1996 Related to Age and Primary Renal Disease

Years	No. of				Surviv	al			
rears	Pts.	1 Year		3 Years		5 Years	•	10 Years	5
Age 25-44	yrs								
1967-1976	492	90 <u>+</u> 2.0	443	76 <u>+</u> 0.9	372	68 <u>+</u> 0.9	333	56 <u>+</u> 0.6	274
1977-1986	710	96 <u>+</u> 0.7	679	90 <u>+</u> 1.1	634	87 <u>+</u> 1.3	612	72 <u>+</u> 1.7	506
1987-1996	1210	97 <u>+</u> 0.5	1068	92 <u>+</u> 0.9	754	85 <u>+</u> 1.2	488	77 <u>+</u> 2.4	14
Age 45-54	yrs								
1967-1976	224	75 <u>+</u> 2.9	169	53 <u>+</u> 3.3	118	44 <u>+</u> 3.3	99	25 <u>+</u> 2.9	55
1977-1986	426	90 <u>+</u> 1.5	383	76 <u>+</u> 2.1	324	63 <u>+</u> 2.3	270	47 <u>+</u> 2.4	202
1987-1996	667	95 <u>+</u> 0.9	566	86 <u>+</u> 1.5	375	74 <u>+</u> 2.1	220	58 <u>+</u> 5.1	4

% Survival \pm S.E. / Number at Risk

Figure 81 Australia

Integrated Survival 1987 - 1996 Related to Age and Primary Renal Disease

1.0.a.oa 10 7.go aa. 1a. y 1.0.a. 2.00a.o												
Primary Renal	No. of		Survival		No.		Survival					
Disease	Pts.	1 Year	3 Years	5 years	Pts.	1 Year	3 Years	5 Years				
Age 25-44 ye	ars				Age	e 45-54 years						
Glomeruloneph.	1210	97 ± 0.5 1068	92 <u>+</u> 0.9 754	85 <u>+</u> 1.2 48	667	95 ± 0.9 566	86 ± 1.5 375	74 ± 2.1 220				
Reflux Nephrop.	264	100 ± 0.8 240	96 <u>+</u> 1.2 186	94 ± 1.8 13	102	98 ± 1.4 93	91 <u>+</u> 3.0 62	81 ± 4.9 32				
Diabetic Nephrop.	446	90 ± 1.4 351	68 <u>+</u> 2.6 176	56 ± 3.0 89	364	87 ± 1.8 277	58 ± 3.0 116	39 ± 3.5 46				
Polycystic Kid.Dis.	143	97 <u>+</u> 1.4 127	93 <u>+</u> 2.4 91	91 <u>+</u> 2.8 62	269	98 <u>+</u> 0.9 235	92 <u>+</u> 1.9 153	86 <u>+</u> 2.7 97				
Analgesic Neph.	13	92 <u>+</u> 7.4 12	84 <u>+</u> 10.2 10	84 <u>+</u> 10.2 8	146	95 <u>+</u> 1.8 138	79 <u>+</u> 3.4 101	66 <u>+</u> 4.2 67				
Hypertension	64	95 <u>+</u> 2.9 51	86 <u>+</u> 5.1 27	76 <u>+</u> 7.1 17	76	87 <u>+</u> 3.9 59	75 <u>+</u> 5.4 40	65 <u>+</u> 6.3 23				
Other	251	93 <u>+</u> 1.6 222	87 <u>+</u> 2.2 153	78 <u>+</u> 3.1 88	254	84 <u>+</u> 2.3 196	63 ± 3.4 102	50 <u>+</u> 3.8 56				
Age 55-64 ye	ars				Age	e 65-74 years						
Glomeruloneph.	768	90 <u>+</u> 1.1 631	72 <u>+</u> 1.8 367	56 <u>+</u> 2.2 18	4 656	86 ± 1.4 494	56 ± 2.2 215	33 ± 2.5 77				
Reflux Nephrop.	64	89 <u>+</u> 4.0 51	65 <u>+</u> 6.5 30	59 <u>+</u> 7.2 15	40	84 <u>+</u> 6.0 30	46 <u>+</u> 8.9 10	29 <u>+</u> 9.6 4				
Diabetic Nephrop.	476	81 <u>+</u> 1.8 335	49 <u>+</u> 2.7 130	28 <u>+</u> 2.9 43	301	80 ± 2.4 197	38 <u>+</u> 3.5 55	21 ± 3.5 17				
Polycystic Kid.Dis.	238	95 <u>+</u> 1.5 204	76 <u>+</u> 3.1 121	65 <u>+</u> 3.7 72	142	88 <u>+</u> 2.8 112	66 <u>+</u> 4.5 57	46 <u>+</u> 5.6 24				
Analgesic Neph.	432	89 <u>+</u> 1.5 365	63 <u>+</u> 2.5 210	43 <u>+</u> 2.7 10	394	84 <u>+</u> 1.9 296	54 <u>+</u> 2.8 144	31 ± 3.0 53				
Hypertension	247	87 <u>+</u> 2.1 202	62 <u>+</u> 3.4 107	44 <u>+</u> 3.8 49	417	81 <u>+</u> 2.0 281	45 <u>+</u> 2.9 103	25 <u>+</u> 3.1 31				
Other	427	86 <u>+</u> 1.7 336	61 <u>+</u> 2.6 183	46 <u>+</u> 2.8 10	9 546	83 <u>+</u> 1.7 397	50 <u>+</u> 2.4 162	26 <u>+</u> 2.6 52				

% Survival <u>+</u> S.E. / Number at Risk

Figure 82 Australia

Integrated Patient Survival 1987 - 1996 Related to Age, Race and Primary Renal Disease

Discours Bound Biograph	D	No con-	Survival					
Primary Renal Disease	Race	No. of Pts.	1 Year	r	3 Years	;	5 Years	
Age 25-44 years								
Glomerulonephritis	Aboriginal	126	92 ± 2.5	107	70 ± 4.5	57	52 ± 5.6	29
	Caucasoid	873	98 ± 0.5	780	94 ± 0.9	570	89 ± 1.3	385
Diabetic	Aboriginal	87	85 ± 4.0	64	60 <u>+</u> 6.2	29	48 <u>+</u> 7.3	15
	Caucasoid	318	92 ± 1.6	261	70 <u>+</u> 2.9	134	59 <u>+</u> 3.4	71
Age 45-54 years								
Glomerulonephritis	Aboriginal	52	82 ± 5.4	39	55 ± 7.7	17	48 ± 8.3	10
	Caucasoid	539	96 ± 0.9	458	89 ± 1.5	320	78 ± 2.2	193
Diabetic	Aboriginal	102	82 <u>+</u> 3.9	75	50 <u>+</u> 5.6	30	26 <u>+</u> 6.0	7
	Caucasoid	192	90 <u>+</u> 2.2	156	61 <u>+</u> 4.1	66	45 <u>+</u> 4.8	29

% Survival \pm S.E. / Number at Risk

Figure 83

Integrated Patient Survival Related to Decades of Treatment

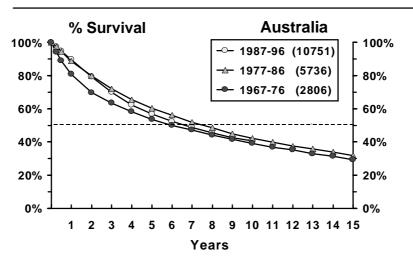
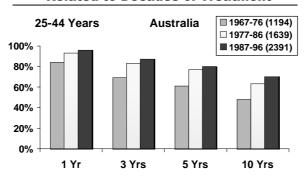
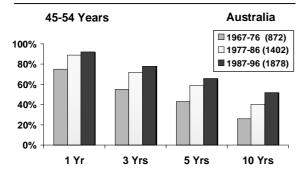


Figure 84





Integrated Patient Survival Related to Decades of Treatment



Integrated Patient Survival
Related to Decades of Treatment

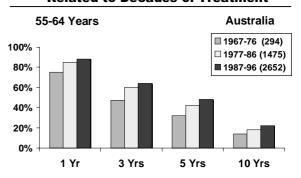


Figure 85

Integrated Patient Survival Related to Race 1987 - 1996

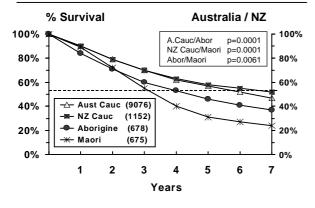


Figure 86

Integrated Patient Survival Primary Renal Disease 1987 - 1996

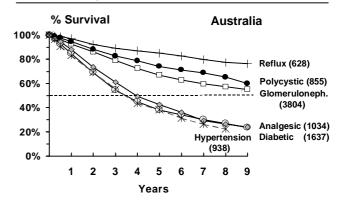


Figure 87

Integrated Five Year Survival 1987 - 1996 Related to Age and Race

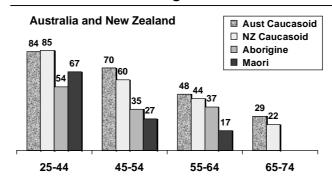


Figure 88

Three Year Survival Trend Related to Age Group and Disease

25-44 Years		Australia		
	Diabetic			
	77-86	87-96		
3 Year	57%	68%		
Median	4.1	7.5		
D	0.0005			

Three Year Survival Trend Related to Age Group and Disease

4	5-54 Years			Αι	ıstralia	
		P	CK	AN		
_		77-86	87-96	77-86	87-96	
	3 Year	80%	92%	69%	79%	
_	Median	13	>10	6.1	8.4	
	р	0.0001		0.0159		

Three Year Survival Trend Related to Age Group and Disease

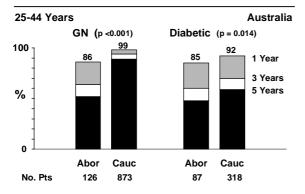
55-64 Years Australia								
	AN		Diabetic		GN			
	77-86	87-96	77-86	87-96	77-86	87-96		
3 yr	57	63	29	49	68	72		
Median	3.7	4.1	2.0	2.9	3.7	5.9		
	p=0.1031		p=0.	p=0.0001		p=0.0620		

Three Year Survival Trend Related to Age Group and Disease

65-74 Years Australia							
	Α	N	Dial	oetic	GN		
	77-86	87-96	77-86	87-96	77-86	87-96	
3 yr	40	54	_	38	53	56	
Median	2.2	3.3		2.3	3.3	3.6	
p=0.0046					p=0.	5493	

Figure 89

Integrated Patient Survival 1987 - 1996 Related to Race and Disease



Integrated Patient Survival 1987 - 1996 Related to Race and Disease

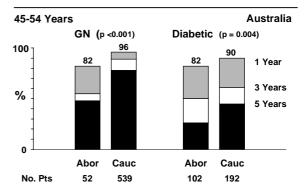
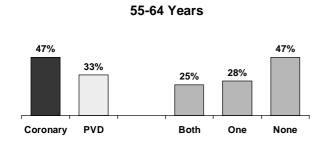


Figure 90

Coronary / PVD Disease 1992 - 1996 Australian Caucasoid Patients



Coronary / PVD Disease 1992 - 1996 Australian Caucasoid Patients

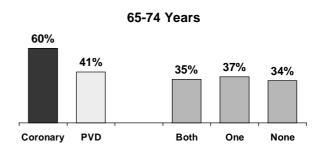
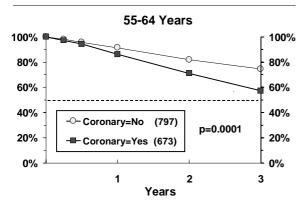


Figure 91

Effect of Coronary Disease on Survival Australia 1992 - 1996



Effect of Coronary Disease on Survival Australia 1992 - 1996

