

CHAPTER 5

HAEMODIALYSIS

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STOCK AND FLOW

AUSTRALIA

The annual stock and flow of haemodialysis patients during the period 1997-2001 is shown in Figures 5.1 and 5.2.

There were 5,001 patients (258 per million) receiving treatment at 31st December, 2001, an increase of 7%; 36% were hospital based (37% in 2000), 48% were in satellite (limited or self care) centres (47% in 2000) and 15% at home (16% in 2000). The proportion of patients receiving satellite haemodialysis increased by 10%, the same as the previous year (10% in 2000 and 15% in 1999).

The proportion of all dialysis patients who were using home haemodialysis in each State was 20% for New South Wales, 16% for the ACT and less than 8% for the other States; this is mirrored by an increase in satellite haemodialysis (fig 4.1).

A total of 1,575 patients received haemodialysis for the first time during the year, a 4% increase from last year; 86% had no previous dialysis nor a transplant. The modal age group was 65-74 years (26%).

Of the 5,001 patients dialysing, 41% were 65 years or older and 9% less than 35 years old. There was a 16% increase in the number of new patients commencing haemodialysis aged between 35-44 years. In absolute terms there were 173 new patients aged 35-44 years or more, compared to 149 in 2000. There was a 5% increase in patients ≥ 75 years (fig 5.3).

The proportion of all dialysis patients in each age group who were using haemodialysis is shown in Figure 5.9.

For more detail regarding age and mode of haemodialysis in each State see Appendix II at Website (www.anzdata.org.au).

There were 382 transplant operations, a 6% increase from 2000; representing 8% of all patients dialysing and 12% of those patients <65 years.

There were 769 deaths, representing 15.8 deaths per 100 patient years (11.7% of patients at risk) (fig 3.5). For more detail of cause of death see Appendix II at Website (www.anzdata.org.au).

NEW ZEALAND

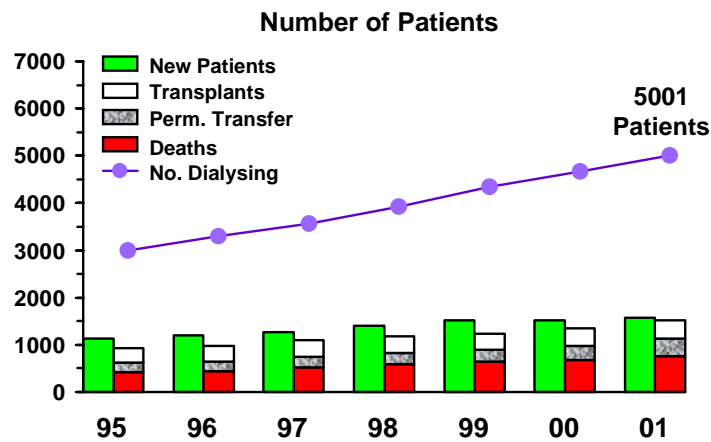
The annual stock and flow of haemodialysis patients during the period 1997-2001 is shown in Figure 5.4 and 5.5.

There were 749 patients (195 per million) receiving treatment at 31st December 2001, a 14% increase compared to 2000. Hospital based haemodialysis decreased from last year to 49.1% (51.4% in 2000), satellite haemodialysis increased to 24% from 19.8% in 2000 and home haemodialysis decreased to 27% (29% in 2000).

Modal age group 55-64 years (26%); 21% were >65 years and 12% <35 years (fig 5.5).

Figure 5.1

Stock and Flow of Haemodialysis Patients 1997 - 2001					
	1997	1998	1999	2000	2001
Australia					
Patients new to HD	1260	1402	1524	1521	1575
First Dialysis Treatment	1060	1176	1301	1287	1351
Previous Dialysis (PD)	182	200	188	208	196
Failed Transplant	18	26	35	26	28
Transplanted	352	358	329	362	382
Deaths	529	598	644	684	769
Never Transplanted	467	534	575	619	705
Previous Transplant	62	64	69	65	64
Permanent Transfers Out (>12 months)	210	234	258	301	371
Temporary Transfers (<12 months)	125	137	153	156	101
Patients Dialysing at 31 December	3567	3918	4338	4665	5001
Patients Dialysing at Home 31 December	637	654	702	732	756
% of all Home Dialysis Patients	29%	29%	30%	30%	30%
New Zealand					
Patients new to HD	270	266	259	355	328
First Dialysis Treatment	184	203	189	263	268
Previous Dialysis (PD)	73	54	62	81	54
Failed Transplant	13	9	8	11	6
Transplanted	63	59	62	50	60
Deaths	61	73	93	106	126
Never Transplanted	57	65	85	95	113
Previous Transplant	4	8	8	11	13
Permanent Transfers Out (>12 months)	102	80	83	137	114
Temporary Transfers (<12 months)	21	35	32	37	15
Patients Dialysing at 31 December	440	495	562	655	749
Patients Dialysing at Home 31 December	189	200	179	188	200
% of all Home Dialysis Patients	25%	24%	21%	22%	22%

Figure 5.2
**Stock and Flow of Haemodialysis Patients
Australia 1995 - 2001**

Figure 5.3
AUSTRALIA
Stock and Flow of Haemodialysis 1997 - 2001
 Number (%)

Age Groups	1997	1998	1999	2000	2001
New Patients ★					
00-14 years	10 (1%)	6 (<1%)	10 (<1%)	5 (<1%)	13 (<1%)
15-24 years	54 (4%)	43 (3%)	47 (3%)	56 (4%)	42 (3%)
25-34 years	108 (9%)	107 (8%)	101 (7%)	107 (7%)	102 (6%)
35-44 years	168 (13%)	180 (13%)	173 (11%)	149 (10%)	173 (11%)
45-54 years	196 (16%)	255 (18%)	268 (17%)	256 (17%)	267 (17%)
55-64 years	272 (22%)	295 (21%)	303 (20%)	296 (19%)	313 (20%)
65-74 years	346 (27%)	360 (26%)	421 (28%)	409 (27%)	411 (26%)
75-84 years	105 (8%)	152 (11%)	193 (13%)	235 (16%)	244 (15%)
> 85 years	1 (<1%)	4 (<1%)	8 (<1%)	8 (<1%)	10 (<1%)
Total	1260 (100%)	1402 (100%)	1524 (100%)	1521 (100%)	1575 (100%)
Patients Dialysing					
00-14 years	10 (<1%)	6 (<1%)	10 (<1%)	7 (<1%)	13 (<1%)
15-24 years	98 (3%)	94 (2%)	98 (2%)	93 (2%)	93 (2%)
25-34 years	318 (9%)	324 (8%)	344 (8%)	352 (8%)	351 (7%)
35-44 years	486 (14%)	522 (13%)	561 (13%)	593 (13%)	598 (12%)
45-54 years	632 (18%)	706 (18%)	784 (18%)	815 (17%)	889 (18%)
55-64 years	771 (22%)	839 (21%)	893 (21%)	944 (20%)	1009 (20%)
65-74 years	925 (26%)	1008 (26%)	1106 (26%)	1188 (25%)	1290 (26%)
75-84 years	315 (8%)	402 (10%)	523 (12%)	644 (14%)	729 (15%)
> 85 years	12 (<1%)	17 (<1%)	19 (<1%)	29 (<1%)	29 (<1%)
Total	3567 (100%)	3918 (100%)	4338 (100%)	4665 (100%)	5001 (100%)
Primary Renal Disease ★					
Glomerulonephritis	441 (35%)	466 (33%)	478 (32%)	480 (31%)	448 (28%)
Analgesic Nephropathy	67 (5%)	84 (6%)	82 (5%)	61 (4%)	85 (5%)
Hypertension	154 (12%)	168 (12%)	166 (11%)	201 (13%)	215 (14%)
Polycystic Disease	72 (6%)	91 (7%)	105 (7%)	99 (7%)	99 (6%)
Reflux Nephropathy	59 (5%)	62 (4%)	67 (4%)	71 (5%)	58 (4%)
Diabetic Nephropathy	260 (21%)	311 (22%)	355 (23%)	333 (22%)	368 (23%)
Miscellaneous	133 (10%)	137 (10%)	158 (10%)	178 (11%)	179 (11%)
Uncertain	74 (6%)	83 (6%)	113 (8%)	98 (7%)	123 (8%)
Total	1260 (100%)	1402 (100%)	1524 (100%)	1521 (100%)	1575 (100%)

★ New patients receiving first haemodialysis treatment



Figure 5.4

**Stock and Flow of Haemodialysis Patients
New Zealand 1995 - 2001**

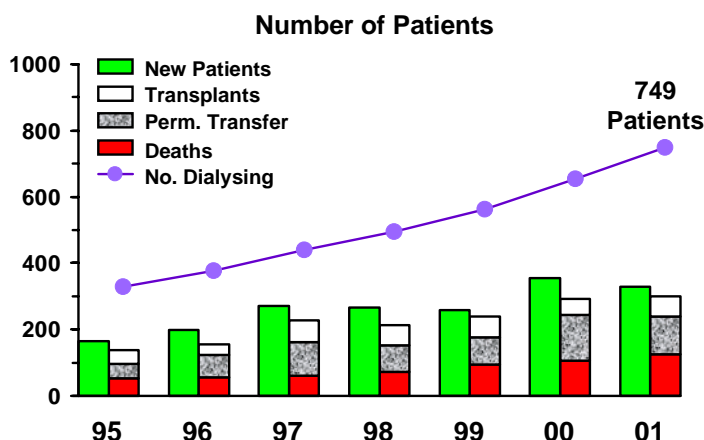


Figure 5.5

NEW ZEALAND

Stock and Flow of Haemodialysis 1997 - 2001

Number (%)

Age Groups	1997	1998	1999	2000	2001
New Patients ★					
00-14 years	2 (<1%)	3 (1%)	2 (<1%)	2 (<1%)	5 (1%)
15-24 years	13 (5%)	12 (4%)	8 (3%)	21 (6%)	9 (3%)
25-34 years	28 (10%)	24 (9%)	21 (8%)	28 (8%)	18 (5%)
35-44 years	31 (11%)	35 (13%)	25 (10%)	36 (10%)	42 (13%)
45-54 years	65 (24%)	54 (21%)	58 (22%)	78 (22%)	74 (23%)
55-64 years	66 (24%)	81 (30%)	76 (29%)	107 (30%)	83 (25%)
65-74 years	58 (21%)	47 (18%)	42 (16%)	57 (16%)	74 (23%)
75-84 years	7 (3%)	10 (4%)	26 (10%)	26 (7%)	22 (7%)
> 85 years	0 (0%)	0 (0%)	1 (<1%)	0 (0%)	1 (<1%)
Total	270 (100%)	266 (100%)	259 (100%)	355 (100%)	328 (100%)
Patients Dialysing					
00-14 years	2 (<1%)	4 (<1%)	4 (<1%)	2 (<1%)	3 (<1%)
15-24 years	19 (4%)	18 (4%)	22 (4%)	36 (6%)	30 (4%)
25-34 years	54 (12%)	52 (11%)	51 (9%)	62 (9%)	58 (8%)
35-44 years	82 (19%)	104 (21%)	100 (18%)	96 (15%)	123 (16%)
45-54 years	108 (25%)	100 (20%)	126 (22%)	145 (22%)	181 (24%)
55-64 years	102 (23%)	127 (26%)	137 (24%)	180 (27%)	193 (26%)
65-74 years	64 (15%)	75 (15%)	95 (17%)	95 (15%)	124 (17%)
75-84 years	9 (2%)	15 (3%)	27 (5%)	39 (6%)	37 (5%)
> 85 years	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Total	440 (100%)	495 (100%)	562 (100%)	655 (100%)	749 (100%)
Primary Renal Disease ★					
Glomerulonephritis	65 (24%)	56 (21%)	75 (29%)	102 (29%)	94 (29%)
Analgesic Nephropathy	1 (<1%)	2 (<1%)	2 (<1%)	0 (0%)	0 (0%)
Hypertension	28 (11%)	30 (11%)	26 (11%)	52 (15%)	37 (11%)
Polycystic Disease	15 (6%)	17 (6%)	14 (5%)	11 (3%)	24 (7%)
Reflux Nephropathy	19 (7%)	11 (4%)	6 (2%)	19 (5%)	7 (2%)
Diabetic Nephropathy	107 (39%)	108 (41%)	102 (39%)	124 (35%)	119 (36%)
Miscellaneous	25 (9%)	22 (8%)	21 (8%)	30 (8%)	30 (9%)
Uncertain	10 (4%)	20 (8%)	13 (5%)	17 (5%)	17 (6%)
Total	270 (100%)	266 (100%)	259 (100%)	355 (100%)	328 (100%)

★ New patients receiving first haemodialysis treatment

Figure 5.6

Proportion (%) of Patients aged > 65 years Having Home Haemodialysis 1997 - 2001					
State	1997	1998	1999	2000	2001
Queensland	1%	1%	1%	1.5%	1.25%
New South Wales	8%	7%	7%	7%	6.5%
Aust.Capital Territory	12%	2%	6%	5%	8%
Victoria	3%	4%	3%	2%	2.5%
Tasmania	0%	0%	0%	0%	0%
South Australia	3%	<1%	2%	<1%	1.5%
Northern Territory	0%	0%	0%	0%	0%
Western Australia	1%	1%	<1%	<1%	<1%
Australia	5%	4%	4%	3%	4%
New Zealand	8%	8%	7%	5%	5%

Figure 5.7

Age of New Haemodialysis Patients

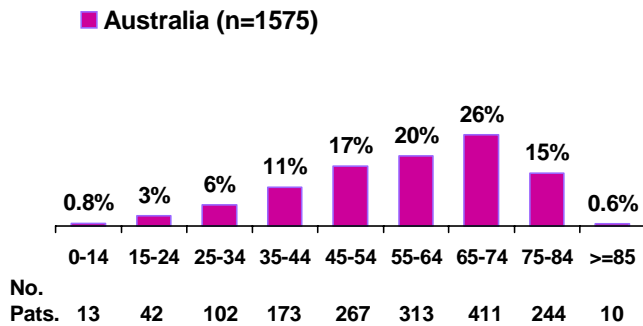


Figure 5.8

Age of Dialysing Haemodialysis Patients

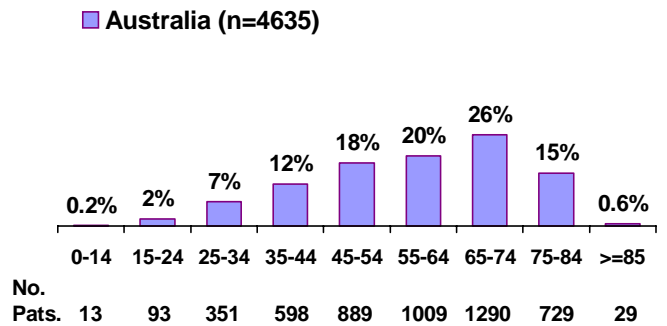


Figure 5.9

Haemodialysis Patients (%) of all Dialysis

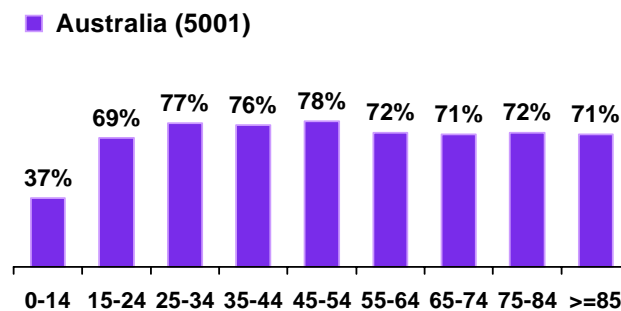




Figure 5.10

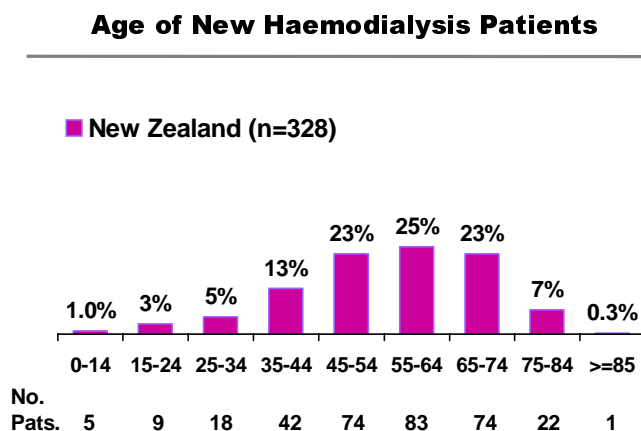


Figure 5.11

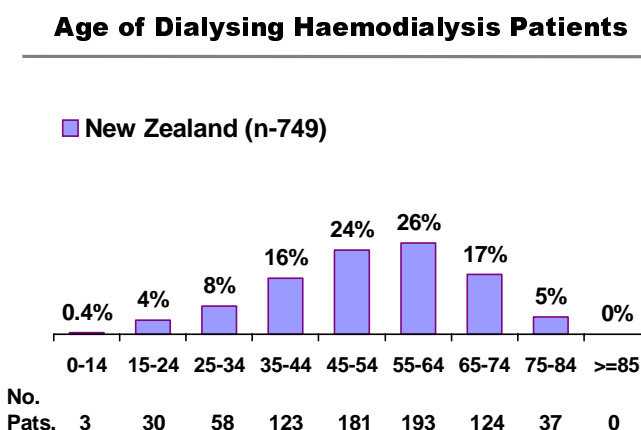
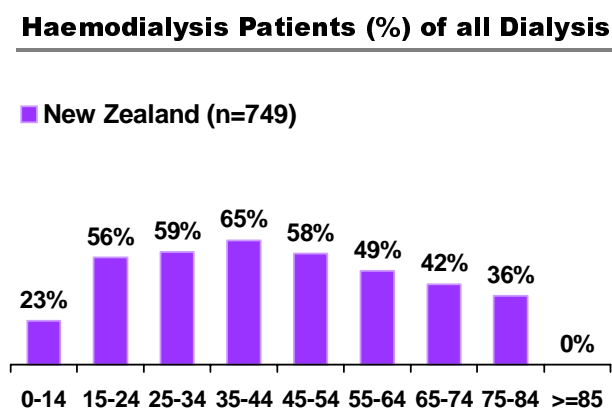


Figure 5.12



NEW ZEALAND (continued)

The proportion of all dialysis patients who were using home haemodialysis is shown in Figure 5.12.

There were 328 patients who received haemodialysis for the first time, a 7% decrease from 2000, 82% having their initial dialysis treatment. Modal age group 45-74 years (70%), 12% were <35 years and 21% >65 years (fig 5.5 and 5.10, and Appendix III at Website (www.anzdata.org.au)).

Sixty haemodialysis patients received transplants in 2001 (50 in 2000), representing 8% of all patients dialysing and 10% of those patients <65 years.

There were 126 deaths, 17.6 deaths per 100 patient years, (11.9% of patients at risk) (fig 3.5).

The proportion of dialysis patients in each group using haemodialysis is shown in Figure 5.12.

BLOOD FLOW RATES

AUSTRALIA

The trend towards a prescribed blood flow rate of 300 mls/minute or higher has accelerated rapidly from approximately 25% of all patients in 1995 to 74% in March 2002; only 6% were now prescribed less than 250 mls/minute.

It will be interesting to see whether this changes with the interest in nocturnal and daily haemodialysis.

NEW ZEALAND

In March 2002, 55% of patients were using 300 ml/minute or higher compared to 21% in 1997. There were 16% still using <250 mls/minute, many of these receiving long session duration dialysis.

Figure 5.13

Blood Flow Rates (mls/minute) 1995 - 2002								
Country	No. Pts	Mls/Minute						
		<200	200-249	250-299	300-349	350-399	>400	
Aust.	March 2002	5128	<1%	6%	20%	56%	15%	3%
	March 2001	4717	<1%	7%	23%	55%	11%	3%
	March 2000	4374	1%	8%	26%	54%	9%	2%
	March 1999	4029	1%	10%	29%	51%	8%	1%
	March 1998	3590	1%	10%	33%	49%	6%	1%
	March 1997	3342	<1%	15%	37%	43%	4%	<1%
	March 1996	3041	<1%	18%	45%	33%	3%	<1%
	March 1995	2765	2%	24%	50%	22%	1%	1%
N.Z.	March 2002	761	<1%	15%	30%	37%	17%	1%
	March 2001	679	1%	13%	34%	36%	15%	1%
	March 2000	575	1%	19%	37%	35%	8%	<1%
	March 1999	501	1%	25%	40%	26%	8%	0%
	March 1998	441	1%	25%	44%	28%	2%	0%
	March 1997	390	1%	30%	47%	21%	<1%	0%
	March 1996	352	1%	42%	51%	5%	<1%	0%
	March 1995	297	1%	43%	51%	4%	<1%	<1%

FREQUENCY AND HOURS OF DIALYSIS

AUSTRALIA

Figures 5.14-17.

Of the 5,128 patients, there were still 76 receiving dialysis twice a week (1%); almost all patients (94%) dialysed three times per week. There has not yet been a significant trend to daily dialysis.

Of the patients dialysing three times per week 29% were dialysing for five hours or longer (30% 2000); only 7% (7% 2000) received less than four hours. Forty seven percent of patients dialysed for 4-4.4 hours.

The median weekly dialysis treatment period of all haemodialysis patients was 12 hours; range 2-52 hours.

Figure 5.14

Number of Sessions Per Week (At 31-Mar) 1997- 2002						
Sessions per week	1997	1998	1999	2000	2001	2002
Australia						
1	<1%	<1%	<1%	<1%	<1%	<1%
2	3%	2%	2%	2%	2%	1%
3	96%	97%	97%	96%	95%	94%
3.5	<1%	<1%	<1%	<1%	1%	2%
4	<1%	<1%	<1%	1%	2%	2%
5	0%	<1%	<1%	<1%	<1%	<1%
6	0%	0%	<1%	<1%	<1%	<1%
7	0%	0%	0%	0%	<1%	<1%
Total	3342	3590	4029	4374	4717	5128
New Zealand						
1	0%	<1%	0%	<1%	<1%	0%
2	3%	3%	2%	2%	2%	2%
3	95%	95%	97%	97%	97%	96%
3.5	0%	0%	0%	0%	<1%	<1%
4	2%	2%	1%	1%	<1%	1%
5	0%	0%	0%	0%	0%	<1%
6	0%	0%	0%	0%	0%	<1%
Total	390	441	501	575	679	761



Figure 5.15

Duration and Number of Treatments Per Week 31-Mar-2002											
Sessions per week	Hours of Each Treatment										Total
	<2.5	2.5-2.9	3-3.4	3.5-3.9	4-4.4	4.5-4.9	5-5.4	5.5-5.9	6-6.4	> 6.5	
Australia											
1	1	0	2	0	2	0	0	0	0	0	5
2	2	1	15	1	35	6	11	1	3	1	76
3	2	9	118	218	2284	790	1198	114	73	22	4828
3.5	0	0	0	3	23	14	23	5	4	13	85
4	0	1	18	9	26	12	16	0	1	1	84
5	1	1	9	1	3	1	0	0	0	1	17
6	6	9	4	0	1	1	0	0	0	8	29
7	0	2	0	0	0	0	0	0	0	2	4
Total	12	23	166	232	2374	824	1248	120	81	48	5128
New Zealand											
2	0	1	0	0	5	0	9	0	1	0	16
3	0	0	5	10	268	147	207	21	42	28	728
3.5	0	0	0	0	1	0	1	0	0	0	2
4	0	0	2	0	0	1	5	0	1	1	10
5	0	0	1	0	0	0	1	0	0	0	2
6	0	1	2	0	0	0	0	0	0	0	3
Total	0	2	10	10	274	148	223	21	44	29	761

NEW ZEALAND

Figures 5.14-17.

There were 728 patients (96%) dialysing three times per week.

The majority (85%) dialysed between four and less than five and a half hours, three times a week. Only 15 patients (2%) dialysed for less than four hours. The remainder dialysed for five and a half or more hours, three times a week.

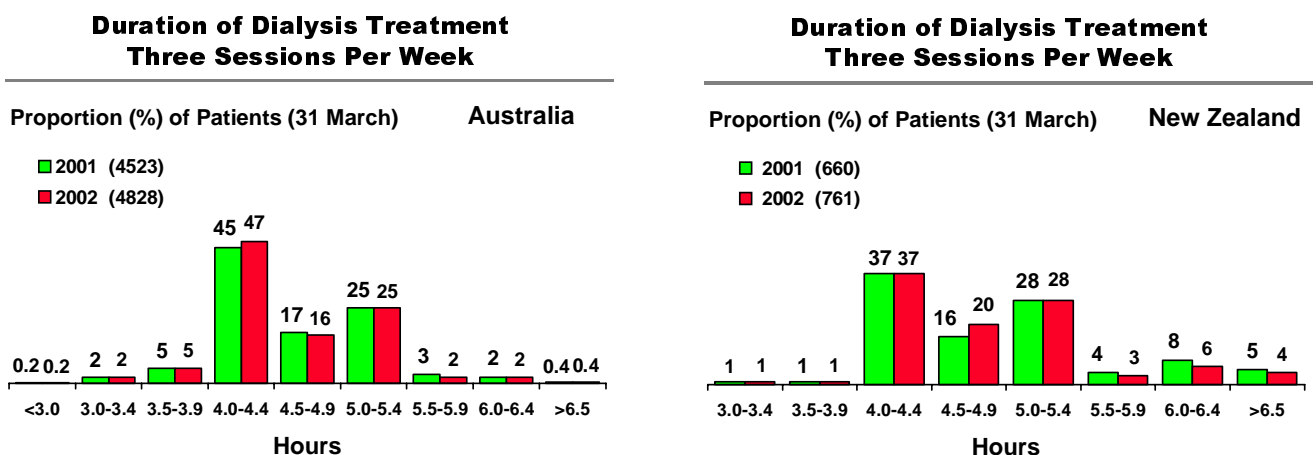
Median weekly treatment for all haemodialysis patients was 13 hours, range 5-31 hours per week.

Figure 5.16

Duration of Haemodialysis Per Week 31-Mar-2002									
Country	No. Pts	Hours of Haemodialysis Per Week							
		<9	9-11	12-14	15-17	18-20	21-23	24-26	>27
Aust.	4930	1%	7%	62%	27%	2%	<1%	<1%	<1%
N.Z.	756	1%	3%	55%	30%	6%	2%	2%	<1%

Excludes patients on haemofiltration and haemodiafiltration
Frequency between 2 and 4 sessions weekly

Figure 5.17



MEMBRANE TYPE AND SURFACE AREAS

AUSTRALIA

Figures 5.18-19.

The trend away from cuprophane continues (2% of total, down from 3% in March 2001 and 4% in March 2000). The change is predominantly due to an increase in the use of low flux polysulfone, now 42% (44% in March 2001).

Twenty percent of patients receive high flux dialysis (11% in March 2001). Haemophan increased from 19% in 2001 to 22% in March 2002.

The trend to larger surface area dialysers continues.

NEW ZEALAND

Figures 5.18-19.

The cuprophane usage increased to 8% in March 2002 (1% in 2001 and 13% in 2000). Haemophan decreased from 41% in March 2001 to 34% in March 2002, while low flux polysulphone remained at 52%. Only ten patients were reported as receiving high flux dialysis.

Figure 5.18

Dialyser Membrane Type		Flux	Square Metres					Total
			<1.0	1.0-1.4	1.5-1.7	1.8-1.9	>1.9	
Australia								
Cellulose Acetate	Low	4	29	49	2	9	93 (2%)	
Cellulose Triacetate	High	0	1	11	178	8	198 (4%)	
Cellulose Triacetate	Low	0	7	4	10	0	21 (<1%)	
Cuprophane	Low	0	8	29	8	61	106 (2%)	
Diacetate	Low	0	19	0	0	0	19 (<1%)	
Exebrane	High	0	1	32	77	0	110 (2%)	
Haemophan	Low	5	52	436	85	534	1112 (22%)	
Polyacrylonitrile	High	0	0	0	1	0	1 (<1%)	
Polyamide S Haemodiafiltration	High	0	116	91	1	26	234 (5%)	
Polyamide S (Polyflux L)	Low	0	8	54	0	2	64 (1%)	
Polycarbonate/Polyether Co-polymer (Plate)	Low	0	13	0	18	0	31 (<1%)	
Polysulphone	High	0	98	0	494	77	669 (13%)	
Polysulphone	Low	23	207	536	1168	209	2143 (42%)	
Polysynthane	Low	0	100	142	0	84	326 (6%)	
Total		32	659	1384	2042	1021	5127* (100%)	
* No data was supplied for 11 patients								
New Zealand								
Cellulose Acetate	Low	0	0	7	0	0	7 (1%)	
Cuprophane	Low	0	21	42	0	0	63 (8%)	
Haemophan	Low	0	4	48	0	203	255 (34%)	
Polyamide S	Low	0	7	0	0	0	7 (1%)	
Polycarbonate/Poly/Copolymer	Low	0	16	0	7	0	23 (3%)	
Polysulphone	High	0	10	0	0	0	10 (1%)	
Polysulphone	Low	23	53	22	298	0	396 (52%)	
Total		23	111	119	305	203	761 (100%)	

Figure 5.19

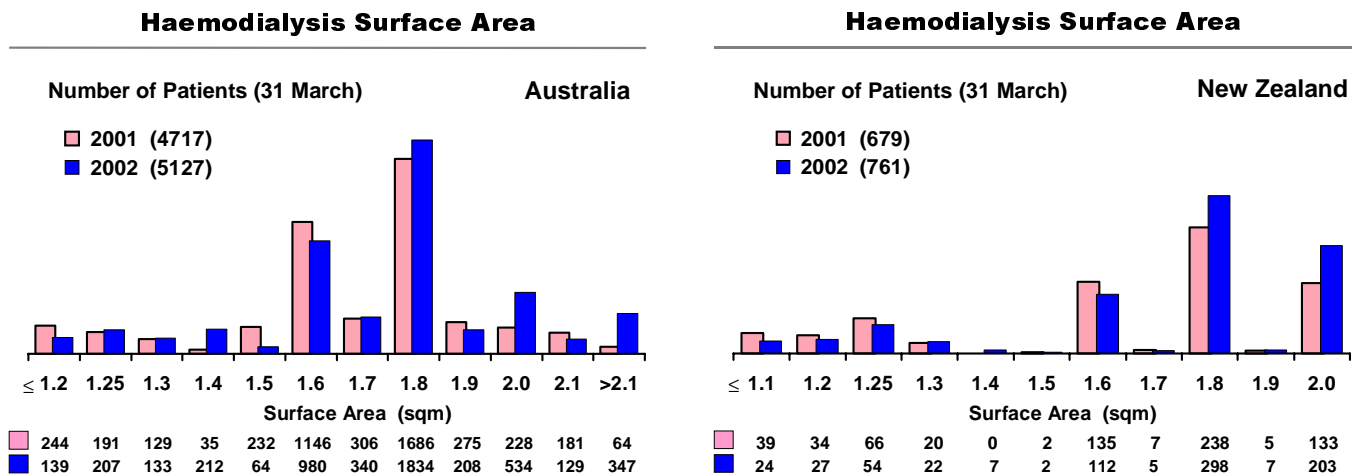




Figure 5.20

Patients Having EPO Haemoglobin and Ferritin Levels Alive on Dialysis at 31-Mar-2002						
Haemoglobin	Ferritin Levels					Total
	00-49	50-99	100-199	200-499	500-on	
Australia						
<89	19 (7%)	14 (4%)	35 (4%)	109 (5%)	130 (6%)	307 (6%)
90-109	82 (31%)	88 (26%)	219 (29%)	605 (30%)	640 (28%)	1634 (29%)
110-129	107 (41%)	155 (47%)	367 (48%)	933 (46%)	1078 (48%)	2640 (47%)
130-149	49 (19%)	69 (21%)	126 (17%)	351 (17%)	382 (17%)	977 (17%)
> 150	6 (2%)	7 (2%)	14 (2%)	31 (2%)	23 (1%)	81 (1%)
Total	263 (100%)	333 (100%)	761 (100%)	2029 (100%)	2253 (100%)	5639 (100%)
New Zealand						
<89	5 (19%)	5 (12%)	20 (20%)	30 (12%)	34 (24%)	94 (17%)
90-109	8 (31%)	15 (37%)	23 (23%)	112 (45%)	53 (38%)	211 (38%)
110-129	8 (31%)	18 (44%)	41 (41%)	78 (31%)	39 (28%)	184 (33%)
130-149	5 (19%)	2 (5%)	15 (16%)	26 (11%)	12 (9%)	60 (11%)
> 150	0 (0%)	1 (2%)	0 (0%)	3 (1%)	1 (1%)	5 (1%)
Total	26 (100%)	41 (100%)	99 (100%)	249 (100%)	139 (100%)	554 (100%)

Very few patient in Australia now have a Hb level <89 gm/l; whereas in New Zealand, more restrictive legislation means that nearly 20% of patients still have a Hb level <89 gm/L. Despite national guidelines, 18% of patients have Hb levels >130 gm/l.

UREA REDUCTION RATIO AND PATIENT SURVIVAL

Overall, data has not been reported on 13% of Australian patients and 27% of New Zealand patients at 31st March 2002.

Figure 5.21

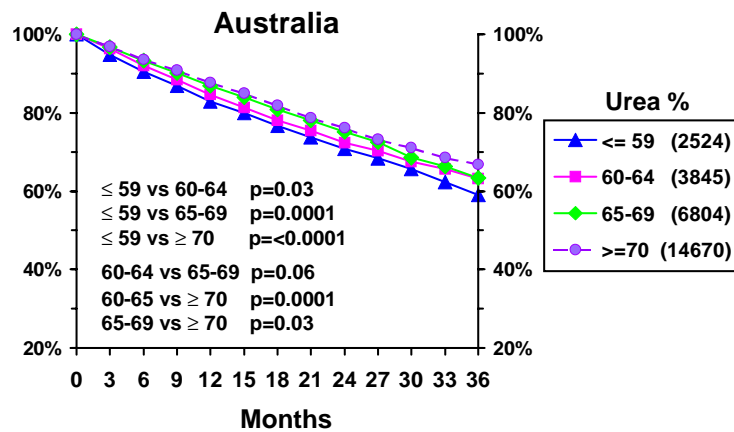
Urea Reduction Ratio (URR) of Patients Alive on Haemodialysis At 30-Sep-2000 and 31-Mar-2002								
Reported URR	Australia				New Zealand			
	30-Sep-00	31-Mar-01	30-Sep-01	31-Mar-02	30-Sep-00	31-Mar-01	30-Sep-01	31-Mar-02
00-39%	<1%	<1%	<1%	<1%	<1%	0%	0%	<1%
40-49%	1%	1%	1%	1%	2%	2%	2%	2%
50-59%	7%	6%	6%	5%	17%	15%	16%	18%
60-64%	12%	12%	12%	10%	21%	19%	17%	14%
65-69%	24%	22%	23%	20%	25%	26%	24%	24%
70-74%	26%	26%	25%	28%	17%	21%	18%	21%
75-79%	18%	19%	19%	21%	12%	10%	13%	12%
80-100%	12%	13%	14%	14%	6%	8%	10%	9%
Total Pts	3808	3985	4067	4443	459	510	533	555
Median	70	71	71	72	67	67	68	68
25th Percentile	66	66	66	67	61	61	61	61
75th Percentile	76	76	76	77	72	73	74	73

Figure 5.22

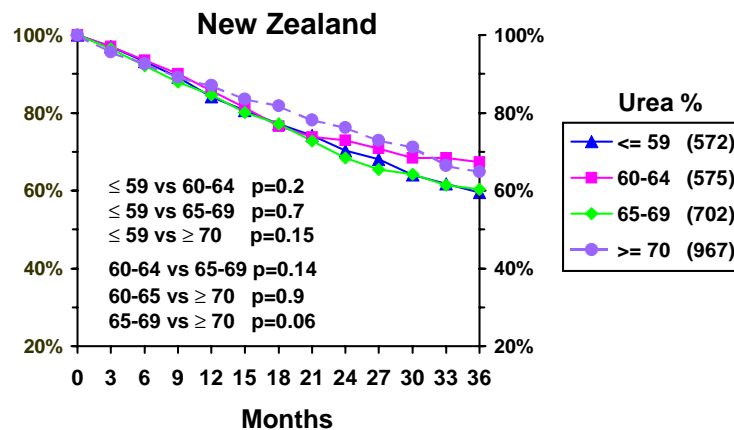
Urea Reduction Ratio and Patient Survival March 1998 - March 2002

This figure demonstrates increasing survival with increased URR values.

Note: for this analysis, each patient may be counted multiple times according to the number of survey periods they span.


Figure 5.23

Urea Reduction Ratio and Patient Survival March 1998 - March 2002





Haemodialysis Patient Survival Related to Hours per Week - Age ≥ 18 Years Treatment at 90 days

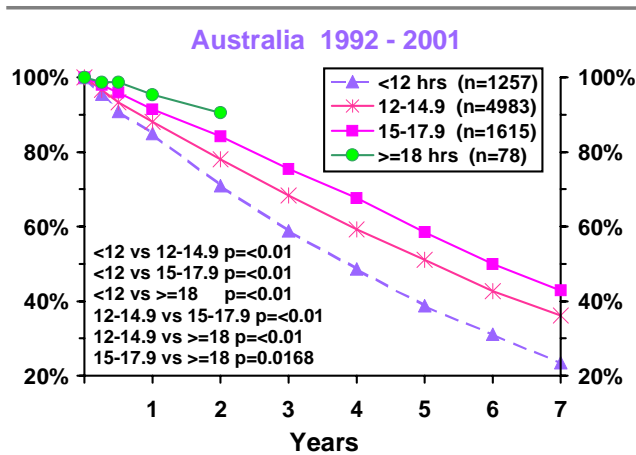


Figure 5.24

This figure demonstrates a clear survival advantage for increased hours of dialysis per week. The line for ≥ 18 hours per week should probably be ignored as the numbers are small. Nevertheless, there is a clear and significant separation of the other lines.

Haemodialysis Patient Survival Related to B.M.I - Age ≥ 18 Years Treatment at 90 days

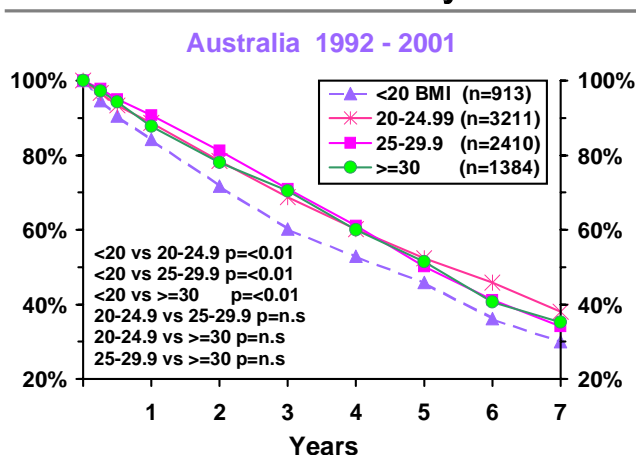


Figure 5.25

Unlike the results for peritoneal dialysis patients, there is no survival advantage for higher BMIs in the haemodialysis group. There is a survival disadvantage for the underweight patients, presumably related to malnutrition.

Haemodialysis Patient Survival Related to Weight - Age ≥ 18 Years Treatment at 90 days

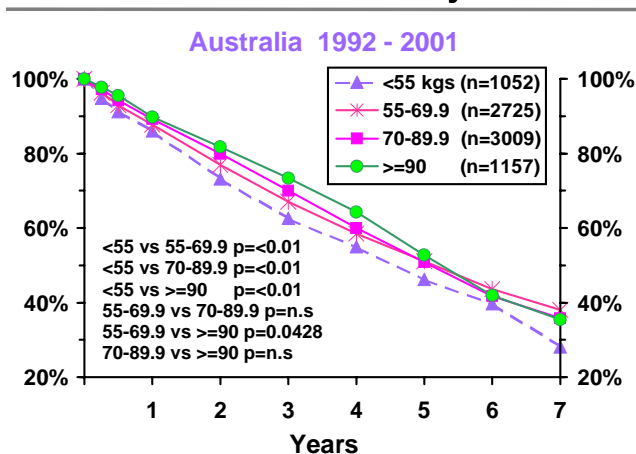


Figure 5.26

Once again, small body weights are associated with increased mortality. This could relate to age, race, or co-morbidities as well as malnutrition and needs further exploration.

US data suggests a survival advantage for larger persons which is not borne out in this Australian data. However, the data presented here has not been corrected for diabetes in particular.