

CHAPTER 6

PERITONEAL DIALYSIS

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STOCK AND FLOW

AUSTRALIA

In 2005, continuous ambulatory peritoneal dialysis was used to treat 12% of all dialysis patients (13% in 2004), and automated peritoneal dialysis 9%, similar to 2004 (10%). Together, these accounted for 69% of all home dialysis, a figure which has remained stable for the past number of years (Figure 6.1). Of the 19,165 patients who have ever received peritoneal dialysis, 4% had experienced at least five years of continuous peritoneal dialysis (Figure 6.2).

The proportion of all home dialysis patients on peritoneal dialysis in each State ranged from 60% (New South Wales), to 91% (Western Australia) (Figure 6.1).

The prevalence of automated peritoneal dialysis increased only 3% in 2005 (784 patients), after a 4% increase in 2004 (763 patients) and a 19% increase in 2003 (735 patients from 619 in 2002).

In relation to age, the proportion of all dialysis patients (65-74 years and 75-84 years) using peritoneal dialysis was 23% and 21% (26% and 21% respectively in 2004); range 15% (25-34 years and >= 85 years) to 75% (0-14 years) (Figure 6.9).

The annual stock and flow of patients during the period 2001-2005 is shown in Figures 6.3 and 6.4.

There were 790 new peritoneal dialysis patients in the calendar year 2005, an increase of 6% from 2004 after a decrease of 8% from 2003 to 2004. There were 455 (58%) who started RRT with peritoneal dialysis, (21% of all new dialysis patients in 2005) and 335 (42%) who previously had haemodialysis or a failed transplant (Figure 6.3).

New patients over the age of 65 years increased 13%, from 314 to 354 in 2005, following a 12% and 3% decrease in 2004 and 2003 respectively.

There were increases in the age groups 35-44 years (9%), 55-64 years (15%), 25-34 years (18%), 75-84 years (35%) and 85 years and over (63%) (from eight to 13 patients). Whilst age groups 15-24 years and 65-74 years remained the same, there were decreases in only two groups, 0-14 years (44%) and 45-54 years (18%).

There were 274 deaths (288 in 2004), (15.2 deaths per 100 patient years (Figure 3.5). For more detail see Appendix II at Website (www.anzdata.org.au/ANZDATA/AnzdataReport/download.htm).

One hundred and twenty four patients received a transplant in 2005 compared to 151 in 2004; 7% of all patients treated, 12% of patients <65 years treated during the year (Figure 6.3). Seven patients >=65 years were transplanted.

Permanent transfer (>12 months) to haemodialysis was 417 (23%) and 366 (20%) in 2004. Most transfers to haemodialysis were permanent (417/508) (Figure 6.3).

The primary renal disease of new patients to peritoneal dialysis saw a 10% increase in 2005 of those diagnosed with diabetic nephropathy; this group comprised 32% of all new peritoneal dialysis patients (31% in 2004).

There was a 3% decrease in glomerulonephritis from 2004 (203 to 197 patients), following a 13% decrease from 2003 to 2004 (Figure 6.8).

Figure 6.1					
Proportion (%) Peritoneal Dialysis of all Home Patients 2001 - 2005					
State	2001	2002	2003	2004	2005
Queensland	84%	82%	80%	77%	76%
New South Wales	59%	59%	60%	59%	60%
ACT	67%	74%	71%	76%	74%
Victoria	73%	73%	72%	71%	69%
Tasmania	80%	79%	87%	79%	73%
South Australia	83%	80%	90%	87%	88%
Northern Territory	96%	97%	97%	87%	84%
Western Australia	88%	87%	87%	86%	91%
Australia	70%	69%	70%	69%	69%
New Zealand	78%	77%	76%	74%	71%

Figure 6.2

Continuous Period of Peritoneal Dialysis 2005

	Months													
	0-6	7-12	13-18	19-24	25-30	31-36	37-42	43-48	49-60	61-72	73-84	85-96	97-108	>=109
Australia														
1st Treatment 15,648 Pts	4356	2991	2109	1582	1276	850	659	488	636	349	184	87	39	42
All Treatments 19,165 Pts	5657	3696	2553	1914	1478	998	765	568	727	406	203	100	44	56
New Zealand														
1st Treatment 4,469 Pts	863	693	584	523	421	342	281	181	293	123	66	49	22	28
All Treatments 5,274 Pts	1084	836	703	606	483	389	320	200	324	138	78	52	25	36

Figure 6.3
**Stock and Flow of Peritoneal Dialysis Patients
2001 - 2005**

State	2001	2002	2003	2004	2005
Australia					
Patients new to PD	829	784	807	744	790
First Dialysis Treatment	483	495	492	440	455
Previous Dialysis (HD)	335	274	292	289	327
Failed Transplant	11	15	23	15	8
Transplanted	110	141	112	151	124
Deaths	312	334	289	288	274
Never Transplanted	301	325	278	274	268
Previous Transplant	11	9	11	14	6
Permanent Transfers Out (>12 months)	358	356	356	366	417
Temporary Transfers (12 months)	125	89	87	131	91
Patients Dialysing (PD) at 31 December	1808	1792	1843	1788	1811
Patients Dialysing (PD) at Home 31 December	1767	1749	1812	1768	1796
% of all Home Dialysis Patients	70%	69%	70%	69%	69%
New Zealand					
Patients new to PD	280	292	260	277	245
First Dialysis Treatment	179	162	153	173	144
Previous Dialysis (HD)	94	124	102	99	98
Failed Transplant	7	6	5	5	3
Transplanted	37	43	37	39	35
Deaths	135	123	131	153	146
Never Transplanted	132	115	125	147	141
Previous Transplant	3	8	6	6	5
Permanent Transfers Out (>12 months)	77	68	99	114	106
Temporary Transfers (<12 months)	35	32	33	36	20
Patients Dialysing (PD) at 31 December	713	770	768	745	720
Patients Dialysing (PD) at Home 31 December	705	764	765	742	717
% of all Home Dialysis Patients	78%	77%	76%	74%	71%

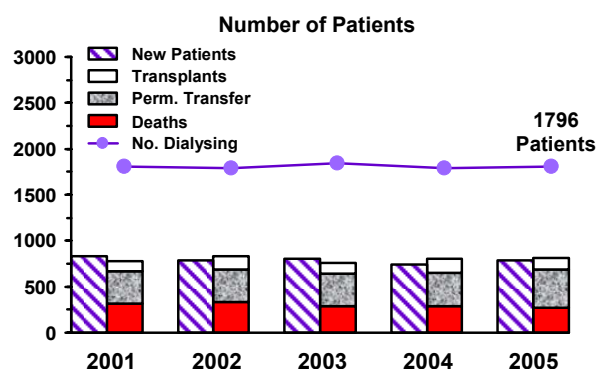
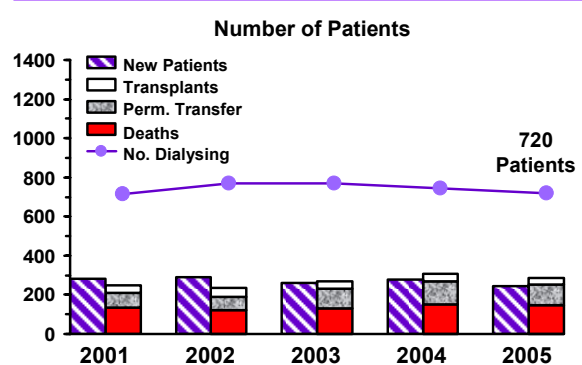
Figure 6.4
**Stock and Flow of Peritoneal Dialysis Patients
Australia 2001 - 2005**

Figure 6.5
**Stock and Flow of Peritoneal Dialysis Patients
New Zealand 2001 - 2005**




Figure 6.6

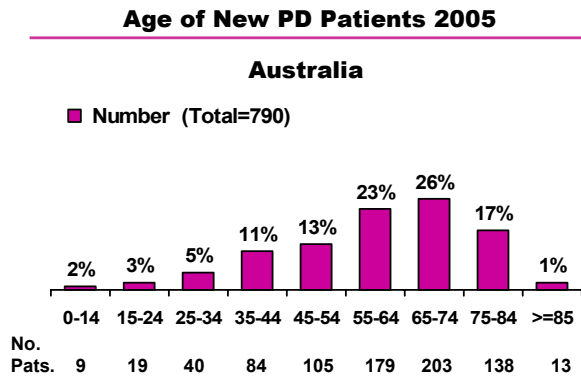


Figure 6.7

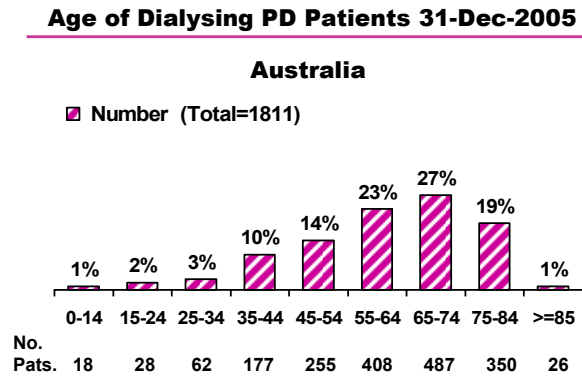


Figure 6.8

Australia

Stock and Flow of Peritoneal Dialysis by Age Groups 2001 - 2005

Age Groups	2001	2002	2003	2004	2005
New Patients *					
00-14 years	13 (2%)	18 (2%)	21 (2%)	16 (2%)	9 (1%)
15-24 years	18 (2%)	18 (2%)	21 (3%)	19 (3%)	19 (2%)
25-34 years	43 (5%)	24 (3%)	52 (6%)	34 (5%)	40 (5%)
35-44 years	81 (10%)	80 (10%)	88 (11%)	77 (10%)	84 (11%)
45-54 years	116 (14%)	126 (16%)	113 (14%)	128 (17%)	105 (13%)
55-64 years	182 (22%)	153 (20%)	157 (19%)	156 (21%)	179 (23%)
65-74 years	235 (28%)	232 (30%)	215 (27%)	204 (27%)	203 (26%)
75-84 years	136 (17%)	127 (16%)	135 (17%)	102 (14%)	138 (17%)
>=85 years	5 (<1%)	6 (1%)	5 (1%)	8 (1%)	13 (2%)
Total	829 (100%)	784 (100%)	807 (100%)	744 (100%)	790 (100%)
Patients Dialysing					
00-14 years	22 (1%)	24 (1%)	27 (1%)	27 (1%)	18 (1%)
15-24 years	42 (2%)	43 (3%)	36 (2%)	29 (2%)	28 (2%)
25-34 years	106 (6%)	83 (5%)	93 (5%)	74 (4%)	62 (3%)
35-44 years	183 (10%)	183 (10%)	187 (10%)	178 (10%)	177 (10%)
45-54 years	256 (14%)	258 (14%)	269 (15%)	269 (15%)	255 (14%)
55-64 years	382 (21%)	363 (20%)	369 (20%)	372 (21%)	408 (23%)
65-74 years	522 (29%)	529 (30%)	529 (29%)	511 (29%)	487 (27%)
75-84 years	283 (16%)	291 (16%)	319 (17%)	311 (17%)	350 (19%)
>=85 years	12 (<1%)	18 (1%)	14 (<1%)	17 (1%)	26 (1%)
Total	1808 (100%)	1792 (100%)	1843 (100%)	1788 (100%)	1811 (100%)
Primary Renal Disease *					
Glomerulonephritis	212 (26%)	229 (29%)	233 (29%)	203 (27%)	197 (25%)
Analgesic Nephropathy	50 (6%)	36 (5%)	34 (4%)	18 (3%)	31 (4%)
Hypertension	124 (15%)	120 (15%)	126 (16%)	107 (15%)	111 (14%)
Polycystic Disease	26 (3%)	44 (6%)	42 (5%)	46 (6%)	47 (6%)
Reflux Nephropathy	26 (3%)	24 (3%)	30 (4%)	18 (3%)	29 (4%)
Diabetic Nephropathy	241 (29%)	207 (26%)	207 (26%)	233 (31%)	256 (32%)
Miscellaneous	90 (11%)	71 (9%)	78 (9%)	80 (10%)	64 (8%)
Uncertain	60 (7%)	53 (7%)	57 (7%)	39 (5%)	55 (7%)
Total	829 (100%)	784 (100%)	807 (100%)	744 (100%)	790 (100%)

* New patients receiving first peritoneal dialysis treatment

Figure 6.9

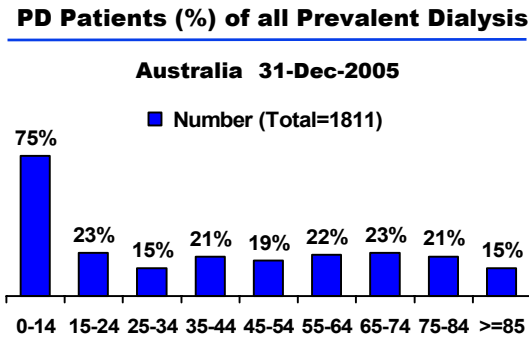


Figure 6.10

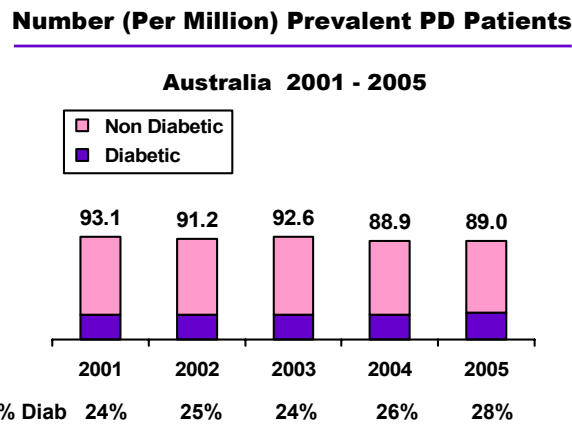


Figure 6.11

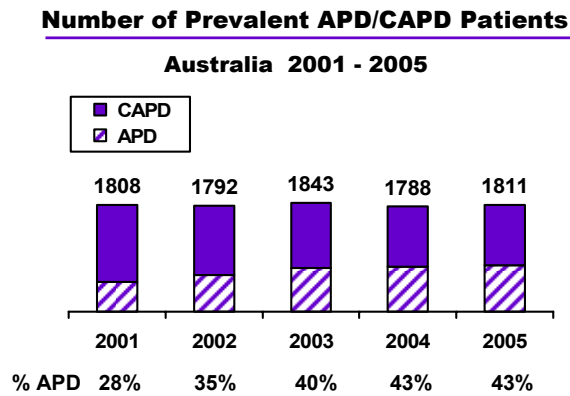


Figure 6.12

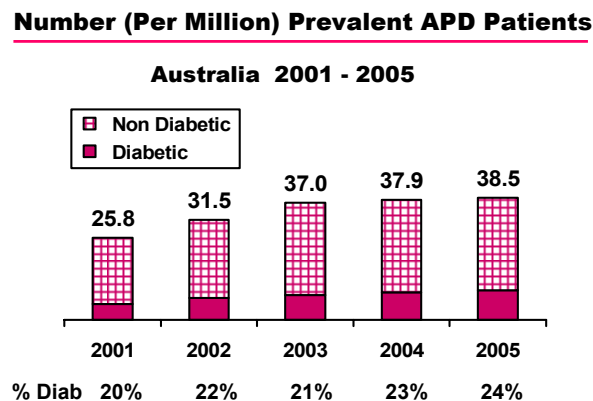




Figure 6.13

PD Patients (%) of all Prevalent Dialysis

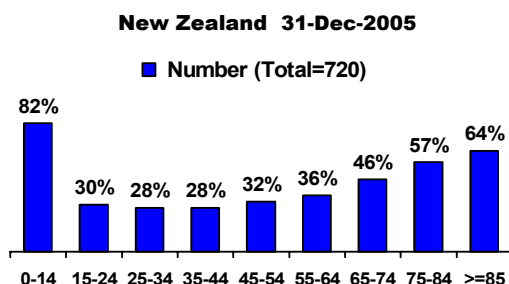


Figure 6.14

Number (Per Million) Prevalent PD Patients

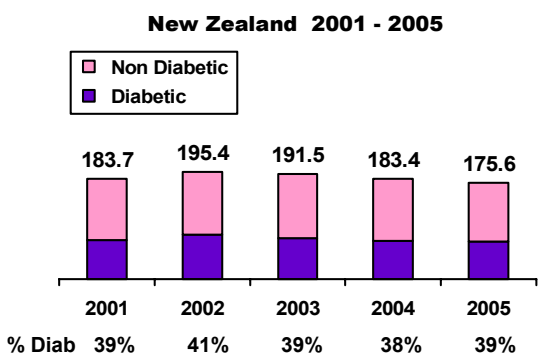


Figure 6.15

Number of Prevalent APD/CAPD Patients

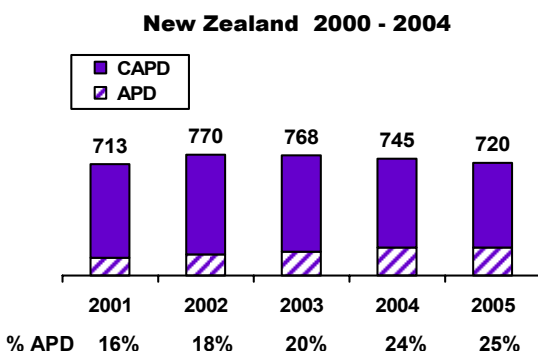
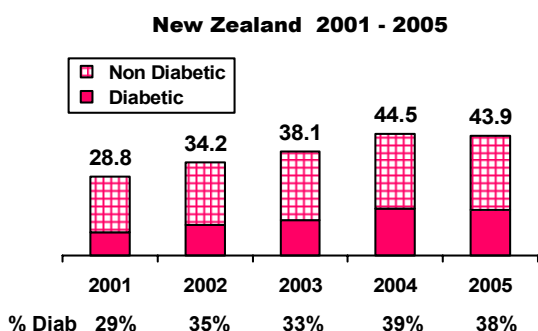


Figure 6.16

Number (Per Million) Prevalent APD Patients



NEW ZEALAND

The annual stock and flow of patients during the period 2001 to 2005 is shown in Figures 6.3 and 6.5. Of the 5,274 patients treated since 1978, 720 (14%) were alive at 31st December, 2005, 329 (6%) had more than five years continuous treatment (Figure 6.2).

Peritoneal dialysis accounted for 39% of all dialysis patients, and 71% of all patients dialysing at home. A substantially lower proportion of patients used automated PD than Australia. Twenty five percent of all peritoneal dialysis in 2005 was automated compared with 24% in 2004 and 20% in 2003.

The age distribution of prevalent peritoneal dialysis patients is shown in Figures 6.18 and 6.19.

There were 245 new peritoneal dialysis patients in the calendar year 2005, a decrease of 12% from 2004 (277 patients). For 59%, peritoneal dialysis was the initial dialysis treatment (Figures 6.17 and 6.19). For more detail see Appendix III at Website (www.anzdata.org.au/ANZDATA/AnzdataReport/download.htm).

There were 146 deaths amongst prevalent peritoneal dialysis patients in 2005 (153 in 2004) 20.0 deaths per 100 years (fig 3.7). For more detail see Appendix III at Website (www.anzdata.org.au/ANZDATA/AnzdataReport/download.htm).

Thirty five patients were transplanted in 2005 (39 in 2004), 5% of patients dialysed, 8% of patients <65 years treated during the year (Figure 6.3). Four patients >=65 years were transplanted.

The most common primary renal disease of new patients to peritoneal dialysis was diabetic nephropathy (44%) followed by glomerulonephritis (22%). Hypertension accounted for 12% of all new patients, a decrease of 45% (29 patients from 53 patients in 2004).

The proportion of patients in each group treated with peritoneal dialysis ranged from 28% (25-34 years and 35-44 years) to 64% (>=85 years) and 82% (0-14 years) (Figure 6.13).

Figure 6.17

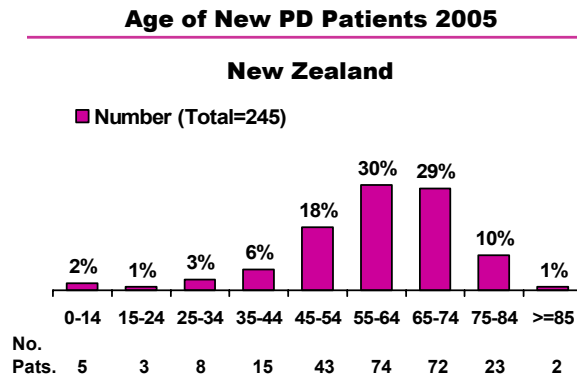


Figure 6.18

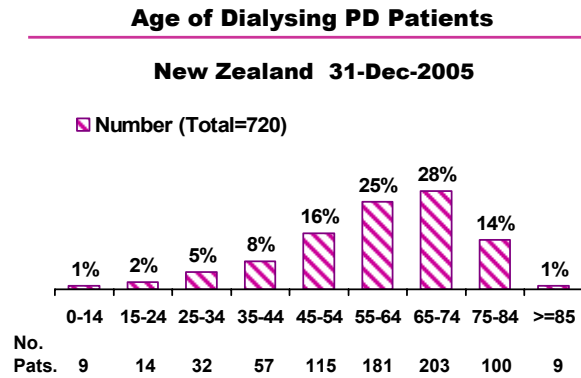


Figure 6.19		New Zealand				
Stock and Flow of Peritoneal Dialysis by Age Groups 2001 - 2005						
Age Groups	2001	2002	2003	2004	2005	
New Patients *						
00-14 years	6 (2%)	9 (3%)	7 (3%)	4 (2%)	5 (2%)	
15-24 years	12 (4%)	5 (2%)	11 (4%)	4 (2%)	3 (1%)	
25-34 years	16 (5%)	23 (8%)	10 (4%)	15 (5%)	8 (3%)	
35-44 years	30 (10%)	26 (9%)	26 (10%)	22 (8%)	15 (6%)	
45-54 years	49 (17%)	61 (21%)	45 (17%)	44 (15%)	43 (18%)	
55-64 years	72 (26%)	76 (26%)	68 (26%)	62 (22%)	74 (30%)	
65-74 years	69 (26%)	69 (24%)	67 (26%)	80 (29%)	72 (29%)	
75-84 years	24 (9%)	21 (7%)	23 (9%)	42 (15%)	23 (10%)	
>=85 years	2 (1%)	2 (<1%)	3 (1%)	4 (2%)	2 (1%)	
Total	280 (100%)	292 (100%)	260 (100%)	277 (100%)	245 (100%)	
Patients Dialysing						
00-14 years	10 (2%)	12 (2%)	7 (1%)	7 (<1%)	9 (1%)	
15-24 years	25 (3%)	25 (3%)	29 (4%)	22 (3%)	14 (2%)	
25-34 years	42 (6%)	50 (6%)	46 (6%)	42 (6%)	32 (5%)	
35-44 years	66 (9%)	74 (10%)	70 (9%)	72 (10%)	57 (8%)	
45-54 years	131 (18%)	130 (17%)	133 (17%)	117 (16%)	115 (16%)	
55-64 years	200 (28%)	221 (29%)	208 (27%)	189 (25%)	181 (25%)	
65-74 years	168 (24%)	178 (23%)	185 (24%)	192 (26%)	203 (28%)	
75-84 years	64 (9%)	71 (9%)	83 (11%)	96 (13%)	100 (14%)	
>=85 years	7 (1%)	9 (1%)	7 (1%)	8 (1%)	9 (1%)	
Total	713 (100%)	770 (100%)	768 (100%)	745 (100%)	720 (100%)	
Primary Renal Disease *						
Glomerulonephritis	74 (26%)	72 (25%)	64 (25%)	56 (20%)	54 (22%)	
Analgesic Nephropathy	-	2 (<1%)	0 (0%)	1 (<1%)	1 (<1%)	
Hypertension	38 (14%)	19 (7%)	30 (12%)	53 (19%)	29 (12%)	
Polycystic Disease	14 (5%)	10 (3%)	9 (3%)	11 (4%)	13 (5%)	
Reflux Nephropathy	9 (3%)	10 (3%)	11 (4%)	7 (3%)	7 (3%)	
Diabetic Nephropathy	112 (40%)	138 (47%)	97 (37%)	105 (38%)	107 (44%)	
Miscellaneous	21 (8%)	25 (9%)	27 (10%)	29 (11%)	24 (10%)	
Uncertain	12 (4%)	16 (5%)	22 (9%)	15 (5%)	10 (4%)	
Total	280 (100%)	292 (100%)	260 (100%)	277 (100%)	245 (100%)	

* New patients receiving first peritoneal dialysis treatment



Figure 6.20

**Peritoneal Dialysis at 90 Days Patient Survival
Censored for Transplant 1993 - 2005
% [95% Confidence Interval]**

	No. of Patients	Survival			
		6 months	1 year	3 years	5 years
Australia					
1993-1995	1650	94 [93, 95]	87 [85, 88]	55 [53, 58]	33 [31, 36]
1996-1998	1705	92 [91, 93]	86 [84, 88]	58 [55, 60]	36 [34, 39]
1999-2001	1844	94 [92, 95]	87 [85, 88]	60 [57, 62]	40 [38, 43]
2002-2004	1861	94 [93, 95]	88 [86, 89]	62 [59, 65]	-
New Zealand					
1993-1995	500	95 [92, 96]	89 [85, 91]	58 [53, 63]	35 [31, 40]
1996-1998	545	96 [94, 97]	89 [87, 92]	59 [55, 63]	36 [32, 41]
1999-2001	664	95 [93, 96]	87 [84, 89]	58 [54, 62]	36 [32, 40]
2002-2004	647	93 [90, 94]	86 [83, 88]	58 [52, 62]	-

On simple univariate analyses, there has been some improvement in long term patient survival in Australia, but short-term survival is unchanged, as is short and long term survival in New Zealand (Figures 6.20 - 6.22).

Figure 6.21

**Patient Survival - PD at 90 days
Censored for Transplant
Australia**

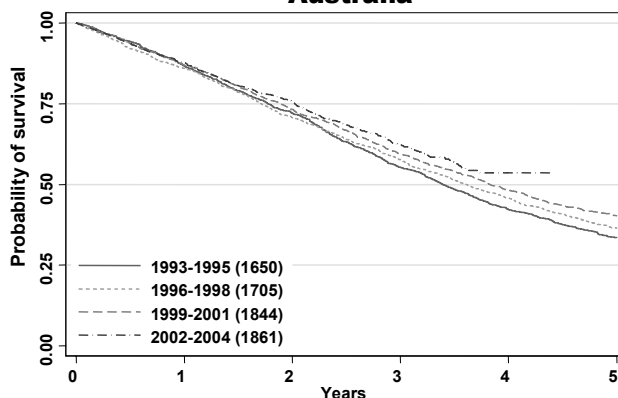


Figure 6.22

**Patient Survival - PD at 90 days
Censored for Transplant
New Zealand**

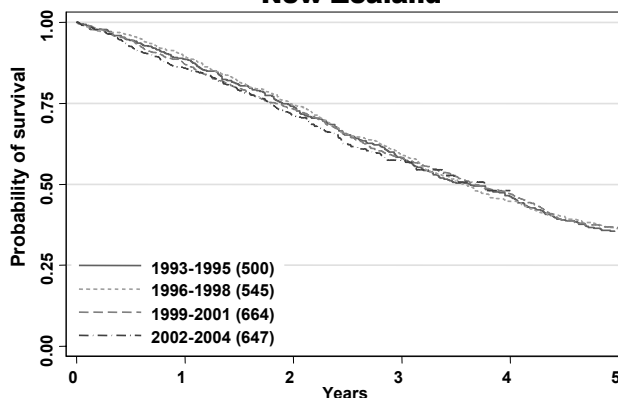


Figure 6.23

**Peritoneal Dialysis at 90 Days
Patient Survival - Diabetic / Non Diabetic
Censored for Transplant 1993 - 2005
% [95% Confidence Interval]**

	Survival			
	6 months	1 year	3 years	5 years
Australia				
Non Diabetic (5272)	94 [94, 95]	88 [87, 89]	62 [60, 63]	41 [40, 43]
Diabetic (1788)	91 [90, 93]	83 [82, 85]	50 [47, 52]	27 [24, 30]
New Zealand				
Non Diabetic (1379)	95 [93, 96]	89 [87, 90]	64 [61, 67]	44 [40, 47]
Diabetic (1027)	94 [92, 95]	86 [84, 88]	51 [48, 54]	28 [24, 31]

On simple univariate analyses, patient survival was lower for diabetic compared to non-diabetic patients (Figures 6.23 - 6.25).

Figure 6.24

**Patient Survival - PD at 90 days
Censored for Transplant
Australia**

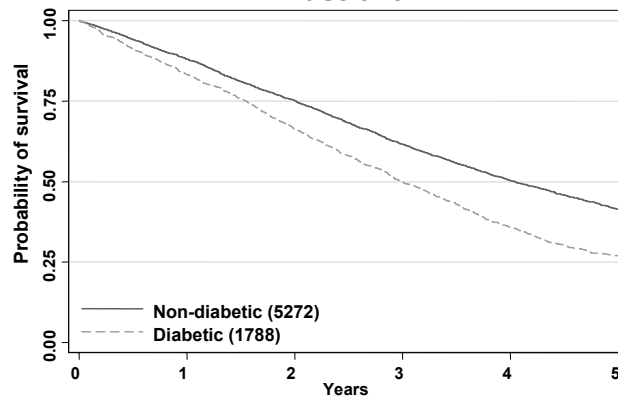


Figure 6.25

**Patient Survival - PD at 90 days
Censored for Transplant
New Zealand**

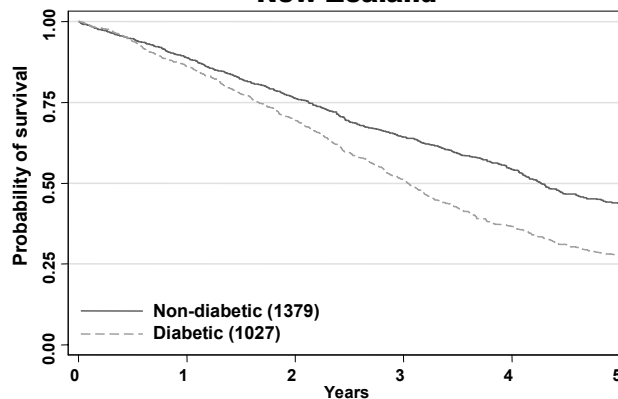




Figure 6.26

Peritoneal Dialysis at 90 Days Patient Survival - By Age Group Censored for Transplant 1993 - 2005 % [95% Confidence Interval]					
Age Groups	No. of Patients	Survival			
		6 months	1 year	3 years	5 years
Australia					
0-39 years	1062	99 [98, 99]	98 [96, 98]	86 [83, 89]	70 [66, 75]
40-59 years	2110	95 [94, 96]	92 [90, 93]	73 [71, 75]	53 [50, 56]
60-74 years	2970	92 [91, 93]	84 [82, 85]	51 [49, 52]	29 [28, 31]
75 and over	918	88 [86, 90]	77 [74, 79]	35 [32, 38]	13 [10, 16]
New Zealand					
0-39 years	367	98 [96, 99]	94 [91, 96]	86 [81, 90]	76 [68, 81]
40-59 years	957	96 [95, 97]	91 [89, 92]	64 [60, 67]	41 [37, 45]
60-74 years	909	93 [91, 95]	84 [81, 86]	48 [45, 52]	24 [21, 27]
75 and over	173	86 [79, 90]	77 [71, 83]	37 [29, 45]	15 [9, 23]

As expected, patient survival is closely related to age (Figures 6.26 - 6.28).

Figure 6.27

**Patient Survival - PD at 90 days
Censored for Transplant
Australia**

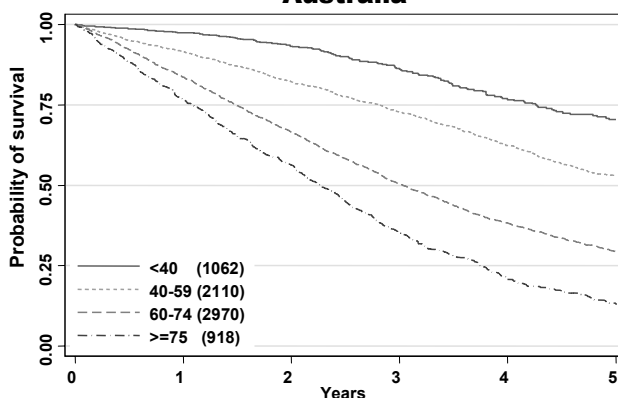
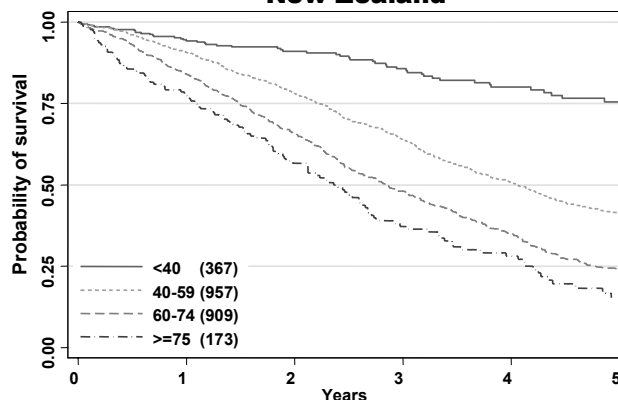


Figure 6.28

**Patient Survival - PD at 90 days
Censored for Transplant
New Zealand**



Figures 6.29 - 6.30 show patient survival rates adjusted to median age of all cohorts, diabetic status, race and co-morbidities (lung disease, coronary heart disease, peripheral vascular disease and cerebrovascular disease).

Slightly improved survival rates in recent cohorts are evident for both Australia and New Zealand.

Figure 6.29

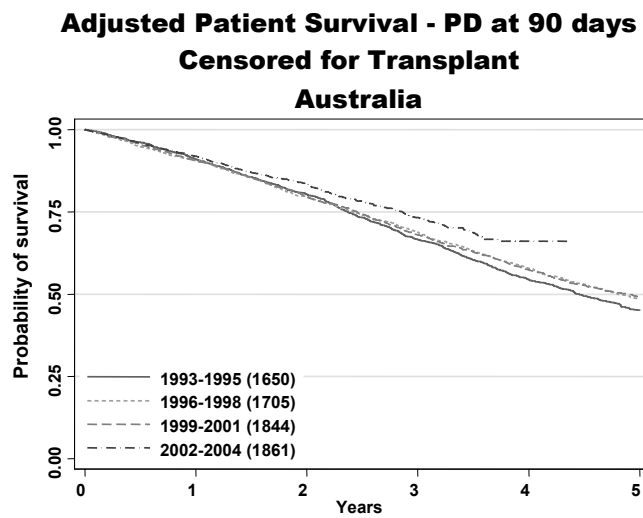
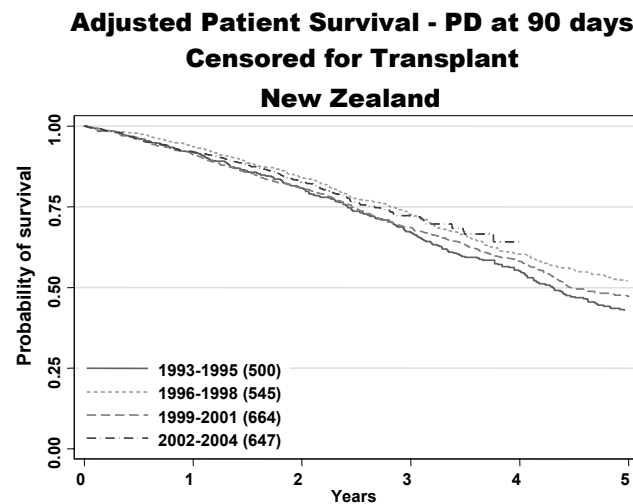


Figure 6.30





PERITONITIS

Australian median time to first peritonitis has increased to 20.3 months overall, with 33% of patients completely free of peritonitis at three years. In New Zealand the time was 17.0 months (26% of patients free of peritonitis at three years) (Figure 6.31). As noted in previous reports there is a strong association between ethnicity and peritonitis free survival (Figure 6.34).

The median peritonitis-free survival for home automated peritoneal dialysis patients was 22.0 months in Australia, and 19.4 months in New Zealand.

Figure 6.31

First PD Treatment to First Episode of Peritonitis Related to Age at Entry 2001 to 31-Dec-2005							
Survival	Age Groups						All
	00-14	15-34	35-54	55-64	65-74	>=75	
Australia	n=78	n=290	n=1001	n=829	n=1091	n=675	n=3964
3 months	78 ± 4.8 (52)	90 ± 1.8 (220)	86 ± 1.1 (764)	89 ± 1.1 (644)	86 ± 1.1 (815)	85 ± 1.4 (472)	87 ± 0.6 (2967)
6 months	65 ± 5.8 (37)	80 ± 2.6 (158)	77 ± 1.4 (597)	78 ± 1.5 (507)	77 ± 1.4 (645)	75 ± 1.8 (368)	77 ± 0.7 (2312)
9 months	52 ± 6.5 (24)	73 ± 3.0 (120)	68 ± 1.6 (464)	72 ± 1.7 (405)	69 ± 1.5 (519)	68 ± 2.0 (289)	69 ± 0.8 (1821)
1 year	47 ± 6.7 (17)	68 ± 3.3 (92)	62 ± 1.8 (363)	66 ± 1.9 (322)	61 ± 1.7 (407)	62 ± 2.2 (233)	63 ± 0.9 (1434)
2 years	36 ± 7.6 (5)	48 ± 4.3 (32)	42 ± 2.0 (137)	48 ± 2.3 (133)	42 ± 1.9 (160)	44 ± 2.6 (92)	44 ± 1.0 (559)
3 years	-	38 ± 5.3 (10)	30 ± 2.3 (54)	37 ± 2.6 (50)	32 ± 2.2 (63)	30 ± 2.9 (37)	33 ± 1.2 (214)
New Zealand	n=31	n=107	n=364	n=351	n=357	n=146	n=1356
3 months	74 ± 8.0 (22)	91 ± 2.8 (92)	85 ± 1.9 (282)	83 ± 2.1 (265)	84 ± 2.0 (259)	86 ± 2.9 (116)	84 ± 1.0 (1036)
6 months	67 ± 8.6 (18)	80 ± 4.0 (77)	72 ± 2.5 (219)	71 ± 2.6 (200)	73 ± 2.5 (205)	78 ± 3.6 (91)	73 ± 1.3 (810)
9 months	54 ± 9.6 (10)	76 ± 4.3 (68)	65 ± 2.7 (182)	63 ± 2.8 (164)	64 ± 2.8 (163)	70 ± 4.1 (72)	66 ± 1.4 (659)
1 year	54 ± 9.6 (8)	70 ± 4.7 (52)	58 ± 2.8 (148)	54 ± 3.0 (128)	57 ± 3.0 (118)	60 ± 4.6 (56)	58 ± 1.5 (510)
2 years	-	51 ± 5.8 (24)	40 ± 3.1 (64)	34 ± 3.1 (53)	38 ± 3.4 (37)	41 ± 5.2 (19)	39 ± 1.7 (200)
3 years	-	38 ± 6.6 (10)	27 ± 3.3 (25)	24 ± 3.2 (23)	20 ± 3.8 (10)	-	26 ± 1.8 (74)

% Survival ± S.E. and Numbers at risk

Figure 6.32

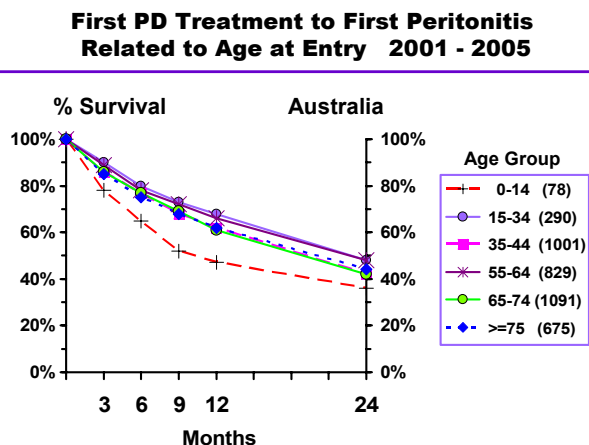


Figure 6.33

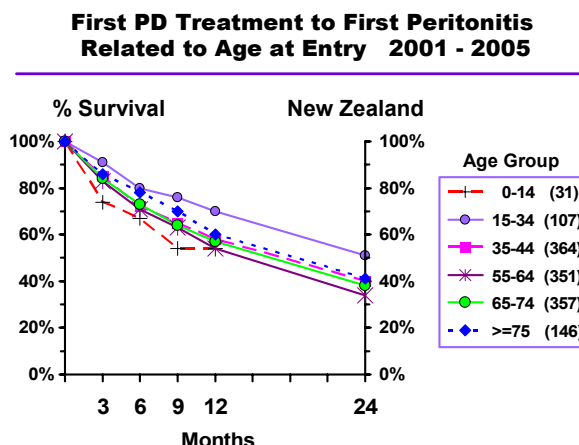


Figure 6.34

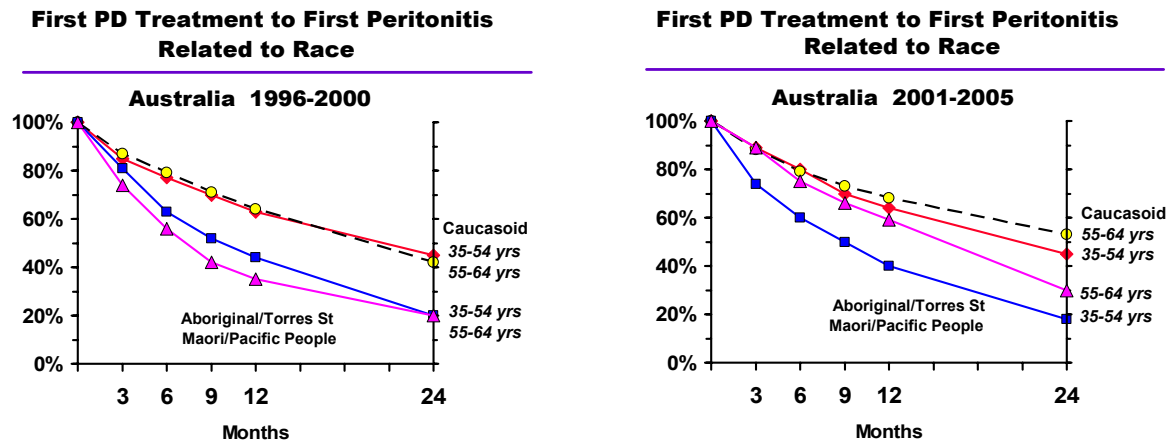


Figure 6.35

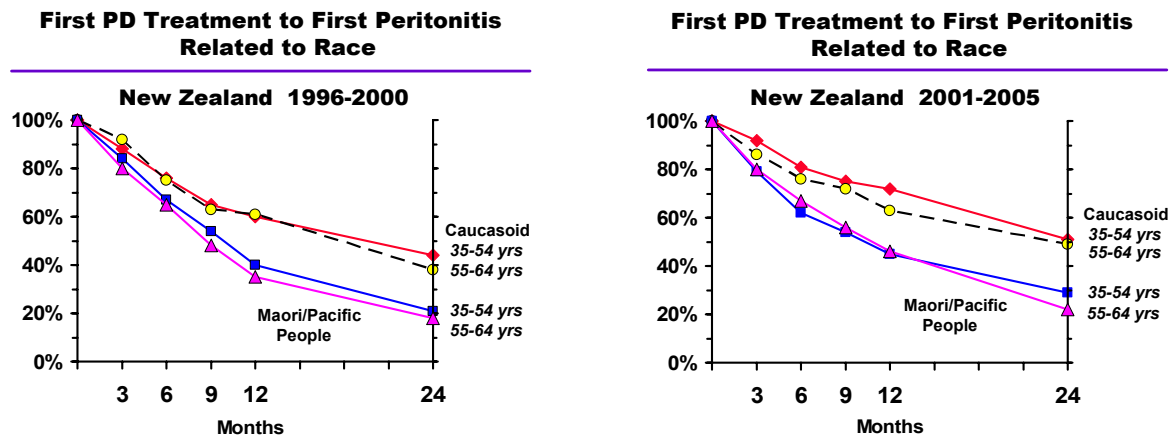


Figure 6.36

First Home APD Treatment to First Episode of Peritonitis Related to Age at Entry 2001 to 31-Dec-2005							
Survival	Age Groups						All
	00-14	15-34	35-54	55-64	65-74	>=75	
Australia	n=60	n=156	n=468	n=336	n=413	n=233	n=1666
1 month	92 ± 3.6 (55)	97 ± 1.3 (147)	94 ± 1.1 (423)	97 ± 1.0 (310)	97 ± 0.8 (385)	96 ± 1.2 (214)	96 ± 0.5 (1534)
3 months	76 ± 5.6 (40)	89 ± 2.7 (112)	85 ± 1.7 (356)	90 ± 1.7 (265)	89 ± 1.6 (314)	90 ± 2.0 (181)	88 ± 0.8 (1268)
6 months	62 ± 6.7 (28)	78 ± 3.7 (80)	74 ± 2.1 (261)	85 ± 2.1 (212)	81 ± 2.1 (251)	82 ± 2.7 (140)	79 ± 1.1 (972)
9 months	55 ± 7.0 (22)	72 ± 4.2 (63)	65 ± 2.4 (197)	78 ± 2.5 (165)	73 ± 2.5 (196)	73 ± 3.3 (105)	71 ± 1.2 (748)
1 year	52 ± 7.2 (15)	67 ± 4.6 (47)	59 ± 2.6 (150)	71 ± 2.9 (131)	68 ± 2.6 (161)	67 ± 3.6 (88)	65 ± 1.4 (592)
2 years	-	45 ± 6.0 (15)	41 ± 3.1 (58)	55 ± 3.7 (53)	49 ± 3.3 (64)	46 ± 4.5 (31)	47 ± 1.7 (225)
New Zealand	n=27	n=34	n=92	n=66	n=53	n=26	n=298
1 month	85 ± 6.8 (23)	85 ± 6.1 (29)	97 ± 1.9 (84)	94 ± 3.6 (61)	94 ± 3.3 (47)	96 ± 3.9 (23)	93 ± 1.5 (267)
3 months	81 ± 7.5 (22)	79 ± 7.1 (22)	88 ± 3.5 (72)	89 ± 3.9 (51)	88 ± 4.7 (39)	74 ± 9.1 (16)	85 ± 2.1 (222)
6 months	70 ± 8.9 (17)	71 ± 8.2 (18)	75 ± 4.8 (54)	81 ± 5.2 (37)	73 ± 6.8 (25)	74 ± 9.1 (13)	64 ± 3.1 (164)
9 months	60 ± 10.1 (9)	71 ± 8.2 (16)	67 ± 5.4 (43)	61 ± 7.1 (25)	63 ± 7.9 (17)	61 ± 11.2 (8)	60 ± 3.3 (118)
1 year	-	66 ± 9.0 (12)	65 ± 5.5 (39)	53 ± 7.4 (19)	59 ± 8.3 (14)	54 ± 12.1 (7)	44 ± 3.9 (98)

% Survival ± S.E. and Numbers at risk



Figure 6.37

**Causes of Technique Failure 1-Apr-2003 to 31-Dec-2005
Excluding Death, Transplantation,
Recovery of Renal Function**

Causes of Technique Failure	Australia		New Zealand	
	Primary	Secondary	Primary	Secondary
Recurrent/persistent peritonitis	246	14	94	5
Acute peritonitis	312	17	101	3
Tunnel/exit site infection	69	4	7	1
Total Infective Complications	627 (29%)	35 (23%)	202 (30%)	9 (26%)
Inadequate solute clearance	370	11	150	3
Inadequate fluid ultrafiltration	143	18	86	7
Excessive fluid ultrafiltration	2	-	-	-
Total Dialysis Failure	515 (24%)	29 (19%)	236 (35%)	10 (29%)
Dialysate leak	104	10	30	2
Hydrothorax	9	1	2	-
Scrotal oedema	1	-	-	-
Catheter block	28	4	5	-
Catheter fell out	9	1	-	-
Catheter tear	-	-	-	-
Hernia	42	3	17	-
Abdominal pain	13	1	7	-
Abdominal surgery	41	3	9	3
Other surgery	28	1	4	-
Haemoperitoneum	1	-	1	-
Sclerosing Peritonitis	4	1	4	-
Excessive weight gain	1	-	-	-
Miscellaneous	22	4	6	-
Total Technical Failure	303 (14%)	29 (19%)	85 (13%)	5 (14%)
Unable to manage self care	159	16	44	2
Patient preference	570	46	99	9
Transfer outside Australia/NZ	4	-	4	-
Total Social Reasons	733 (34%)	62 (40%)	147 (22%)	11 (31%)

TECHNIQUE FAILURE

In Australia, the most common primary cause of technique failure was a social reason (generally patient preference). This accounted for 34% of transfers in the era 2003-2005 (Figure 6.37) and was comparable to that observed in the era 2000-2003 (37%) (Figure 6.38).

Infections (primarily peritonitis) were the second commonest cause, followed by inadequate dialysis and mechanical/technical complications.

In New Zealand, the most common primary cause of technique failure was inadequate dialysis, which accounted for 35% of transfers in the era 2003-2005 and social reasons 22% (Figure 6.37).

Figure 6.38

**Causes of Technique Failure 1-Apr-2000 to 31-Mar-2003
Excluding Death, Transplantation,
Recovery of Renal Function**

Causes of Technique Failure	Australia		New Zealand	
	Primary	Secondary	Primary	Secondary
Recurrent/persistent peritonitis	220	8	69	4
Acute peritonitis	293	9	107	1
Tunnel/exit site infection	57	2	11	1
Total Infective Complications	570 (24%)	19 (15%)	187 (29%)	6 (24%)
Inadequate solute clearance	351	14	139	7
Inadequate fluid ultrafiltration	164	11	56	2
Excessive fluid ultrafiltration	1	1	1	-
Total Dialysis Failure	516 (22%)	26 (21%)	196 (30%)	9 (36%)
Dialysate leak	157	18	47	4
Hydrothorax	15	-	2	1
Catheter block	38	2	5	-
Catheter fell out	11	-	2	-
Catheter tear	1	-	-	-
Hernia	63	4	6	-
Abdominal pain	9	3	4	-
Abdominal surgery	47	2	14	1
Other surgery	18	-	3	-
Haemoperitoneum	1	-	-	-
Sclerosing Peritonitis	5	1	2	-
Excessive weight gain	2	-	-	-
Miscellaneous	18	2	8	1
Multiple adhesions	-	-	1	-
Total Technical Failure	385 (17%)	32 (26%)	94 (15%)	7 (28%)
Unable to manage self care	194	7	31	1
Patient preference	661	39	123	2
Transfer outside Australia/NZ	4	-	14	-
Total Social Reasons	859 (37%)	46 (37%)	168 (26%)	3 (12%)

PERITONITIS REGISTRY 1-OCT-2003 TO 31-DEC-2005

STEPHEN McDONALD AND KYM BANNISTER

The Australian Peritonitis Registry began to collect data from participating units on 1st October 2003 and data presented here cover the period 1st October 2003 to 31st December 2005. The aim of this Registry was to address the requests from the Australian PD community for more detailed national level data about the causes and treatment of peritonitis. This Registry is restricted to Australia; a more extensive peritonitis registry has been conducted in New Zealand for some years.

Over the period 1-Oct-2003 to 31-Dec-2005, there were 2500 episodes of peritonitis among 1425 people in Australia. Over this time, a total of 3,656 people received PD treatment in Australia.

The number of episodes in each person is shown in Figure 6.39. The overall rate of peritonitis was 0.61 95% CI [0.59-0.63] per year, or 1 per 20 person-months.

There was considerable variation between States in observed rates (Figure 6.40).

Initial antibiotic regimens containing Vancomycin are shown in Figure 6.41 (by organism type) and Figure 6.42 (by State with Aminoglycoside).

Figure 6.39

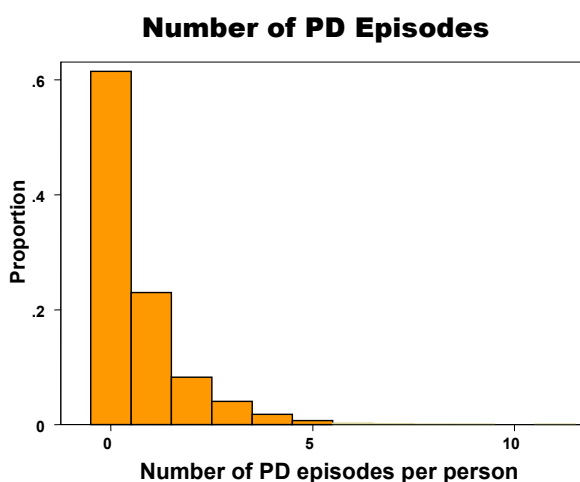


Figure 6.40

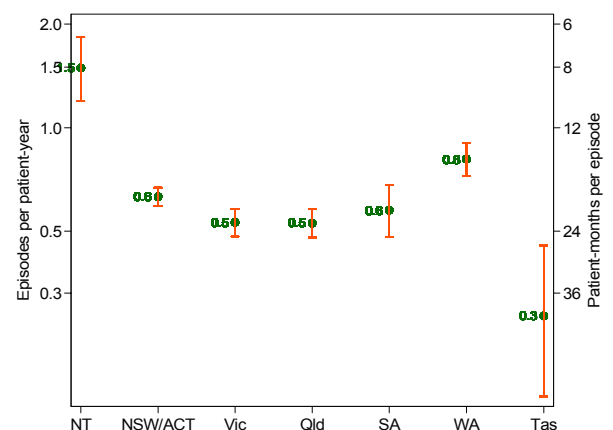




Figure 6.41

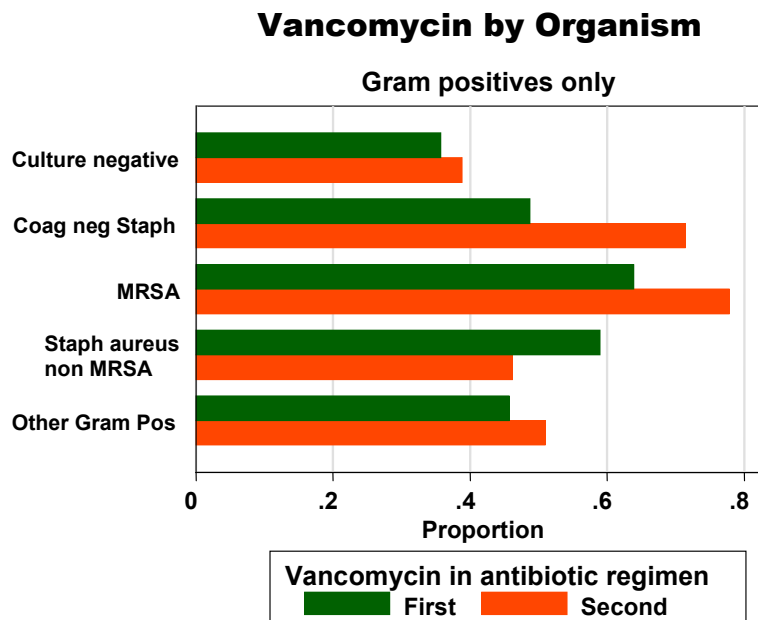


Figure 6.42

