

Table 3.1.1: Deaths on Dialysis 1997 – 2006

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
No. of dialysis patients at risk	3309	4119	5039	6115	7265	8477	9772	11142	12596	13992
Dialysis deaths	316	376	492	594	816	925	1153	1265	1403	1575
Dialysis death rate %	10	9	10	10	11	11	12	11	11	11
No. of HD patients at risk	2838	3599	4471	5487	6552	7635	8784	10056	11460	12762
HD deaths	242	302	392	502	686	810	975	1113	1232	1411
HD death rate %	9	8	9	9	10	11	11	11	11	11
No. of CAPD patients at risk	471	520	568	628	713	842	988	1086	1137	1230
CAPD deaths	74	74	100	92	130	115	178	152	171	164
CAPD death rate %	16	14	18	15	18	14	18	14	15	13

Figure 3.1.1: Death Rates on Dialysis 1997 – 2006

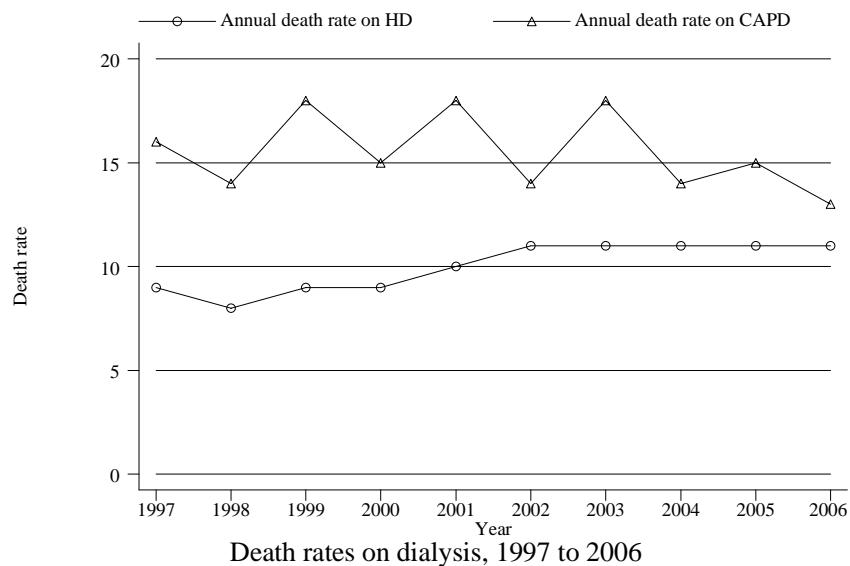


Table 3.1.2: Causes of Death on Dialysis 1997 – 2006

Year	1997		1998		1999		2000		2001	
	No.	%	No.	%	No.	%	No.	%	No.	%
Cardiovascular	85	27	110	29	129	26	177	30	210	26
Died at home	52	16	72	19	107	22	135	23	228	28
Sepsis	53	17	66	18	84	17	85	14	128	16
CAPD peritonitis	5	2	2	1	11	2	21	4	29	4
GIT bleed	4	1	7	2	18	4	18	3	18	2
Cancer	9	3	8	2	6	1	8	1	18	2
Liver disease	3	1	5	1	7	1	14	2	11	1
Others	32	10	55	15	75	15	91	15	108	13
Unknown	73	23	51	14	55	11	45	8	66	8
TOTAL	316	100	376	100	492	100	594	100	816	100
Year	2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%
Cardiovascular	307	33	323	28	332	26	350	25	434	28
Died at home	212	23	290	25	304	24	313	22	327	21
Sepsis	141	15	183	16	154	12	159	11	199	13
CAPD peritonitis	16	2	11	1	13	1	18	1	21	1
GIT bleed	24	3	28	2	24	2	28	2	24	2
Cancer	18	2	27	2	19	2	28	2	34	2
Liver disease	16	2	23	2	29	2	25	2	31	2
Others	122	13	186	16	326	26	406	29	385	24
Unknown	69	7	82	7	64	5	76	5	120	8
TOTAL	925	100	1153	100	1265	100	1403	100	1575	100

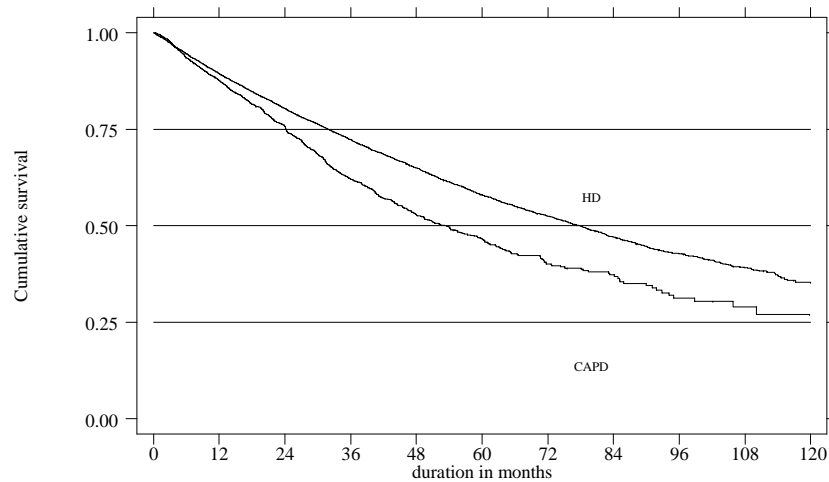
Table 3.2.1(a): Unadjusted patient survival by Dialysis modality, 1997-2006

Dialysis modality Interval (months)	CAPD			HD			All Dialysis			
	No.	% Survival	SE	No.	% Survival	SE	No.	% Survival	SE	
6	2537	93	0	17560	95	0	0	20097	94	0
12	2087	88	1	14950	89	0	0	17037	89	0
24	1376	76	1	10955	80	0	0	12331	80	0
36	847	62	1	7895	72	0	0	8742	71	0
48	497	53	1	5592	65	0	0	6089	64	0
60	293	47	1	3809	58	0	0	4102	57	0
72	160	40	2	2536	52	1	1	2695	51	1
84	88	37	2	1578	47	1	1	1666	46	1
96	44	31	2	884	43	1	1	927	42	1
108	19	29	3	372	39	1	1	390	38	1
120	3	27	3	27	35	1	1	29	35	1

* No. = Number at risk SE=standard error

Figure 3.2.1(a): Unadjusted patient survival by Dialysis modality, 1997-2006

Kaplan-Meier survival estimates, by modality



Dialysis patient survival by Dialysis modality 1997-2006

Table 3.2.1(b): Adjusted patient survival with age and diabetes by Dialysis modality, 1997-2006

Dialysis modality Interval (months)	CAPD			HD			All Dialysis			
	No.	% Survival	SE	No.	% Survival	SE	No.	% Survival	SE	
6	2537	95	0	17560	96	0	0	20097	95	0
12	2087	90	1	14950	91	0	0	17037	91	0
24	1376	79	1	10955	84	0	0	12331	83	0
36	847	64	1	7895	76	0	0	8742	75	0
48	497	53	1	5592	69	0	0	6089	67	0
60	293	46	1	3809	61	0	0	4102	60	0
72	160	37	2	2536	55	1	1	2695	54	1
84	88	33	2	1578	49	1	1	1666	48	1
96	44	25	2	884	44	1	1	927	43	1
108	19	22	3	372	39	1	1	390	38	1
120	3	19	3	27	34	1	1	29	33	1

* No. = Number at risk SE=standard error

Figure 3.2.1(b): Adjusted patient survival for age and diabetes by Dialysis modality, 1997-2006

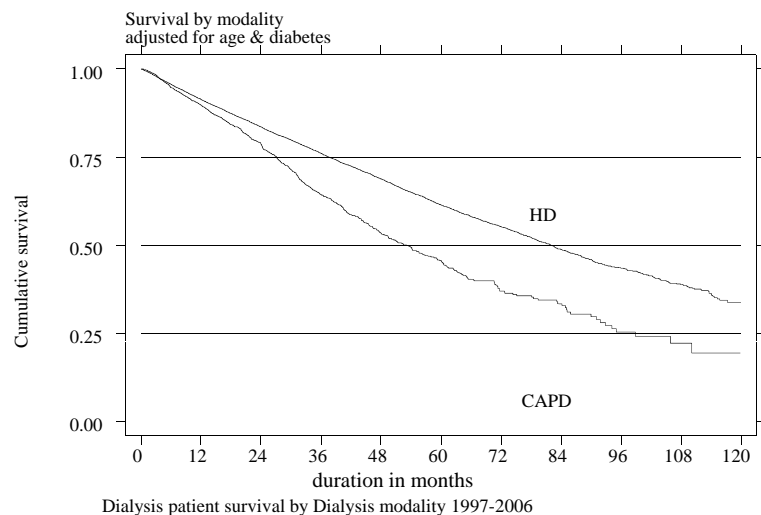
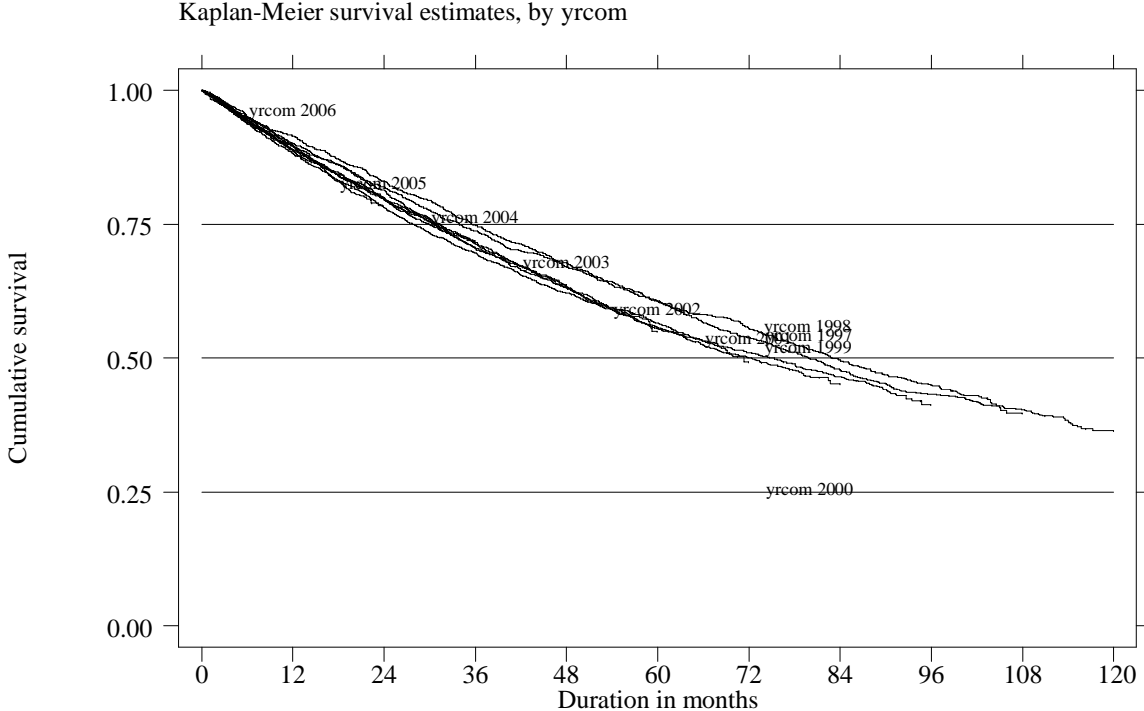


Table 3.2.2: Unadjusted patient survival by year of entry, 1997-2006

Year Interval (months)	1997			1998			1999			2000		
	No.	% Survival	SE	No.	% Survival	SE	No.	% Survival	SE	No.	% Survival	SE
6	1133	94	1	1244	95	1	1510	95	1	1807	95	1
12	1060	90	1	1178	91	1	1410	90	1	1666	90	1
24	950	82	1	1037	83	1	1213	81	1	1414	80	1
36	835	74	1	913	75	1	1038	72	1	1224	71	1
48	735	67	1	802	68	1	895	63	1	1059	63	1
60	643	61	1	708	61	1	791	57	1	919	56	1
72	555	54	2	637	56	1	706	51	1	802	50	1
84	481	48	2	558	50	1	628	46	1	-	-	-
96	429	43	2	499	45	1	-	-	-	-	-	-
108	390	40	2	-	-	-	-	-	-	-	-	-
120	29	36	2	-	-	-	-	-	-	-	-	-
Year Interval (months)	2001			2002			2003			2004		
	No.	% Survival	SE	No.	% Survival	SE	No.	% Survival	SE	No.	% Survival	SE
6	2068	94	1	2350	95	0	2526	94	0	2835	95	0
12	1884	89	1	2175	90	1	2330	89	1	2606	89	1
24	1601	78	1	1842	80	1	2016	80	1	2263	80	1
36	1385	70	1	1598	71	1	1747	70	1	-	-	-
48	1204	62	1	1398	63	1	-	-	-	-	-	-
60	1044	56	1	-	-	-	-	-	-	-	-	-
Year Interval (months)	2005			2006								
	No.	% Survival	SE	No.	% Survival	SE						
6	2968	94	0	1665	94	0						
12	2732	88	1	-	-	-						

* No. = Number at risk SE=standard error

Figure 3.2.2: Unadjusted patient survival by year of entry, 1997-2006



Dialysis Patient survival by Year of entry 1997-2006

Table 3.2.3: Unadjusted patient survival by age, 1997-2006

Age group (years)	<=14			15-24			25-34			35-44		
	No.	% Survival	SE	No.	% Survival	SE	No.	% Survival	SE	No.	% Survival	SE
6	294	98	1	928	97	1	1649	97	0	2832	96	0
12	258	96	1	793	95	1	1444	95	1	2467	93	0
24	182	90	2	568	89	1	1111	92	1	1934	89	1
36	133	88	2	428	86	1	881	88	1	1502	84	1
48	94	86	3	305	83	1	677	85	1	1146	79	1
60	58	84	3	219	81	2	493	82	1	850	75	1
72	39	79	4	157	79	2	373	80	1	601	71	1
84	23	79	4	103	73	3	253	78	1	381	65	1
96	11	72	8	59	67	3	155	76	2	233	61	2
108	6	72	8	32	67	3	69	75	2	101	57	2
120	-	-	-	4	67	3	4	72	3	6	52	3

Age group (years)	45-54			55-64			≥65		
	No.	% Survival	SE	No.	% Survival	SE	No.	% Survival	SE
6	5083	96	0	5431	93	0	3881	91	0
12	4329	91	0	4582	87	0	3166	83	1
24	3218	83	1	3231	76	1	2092	69	1
36	2303	74	1	2222	65	1	1279	55	1
48	1643	67	1	1475	56	1	750	44	1
60	1125	60	1	928	47	1	431	35	1
72	750	54	1	554	39	1	230	29	1
84	464	49	1	333	33	1	116	23	1
96	247	44	1	171	29	1	57	18	1
108	99	39	2	70	24	1	19	15	2
120	9	35	2	6	20	2	3	12	2

* No. = Number at risk

SE=standard error

Figure 3.2.3: Unadjusted patient survival by age, 1997-2006

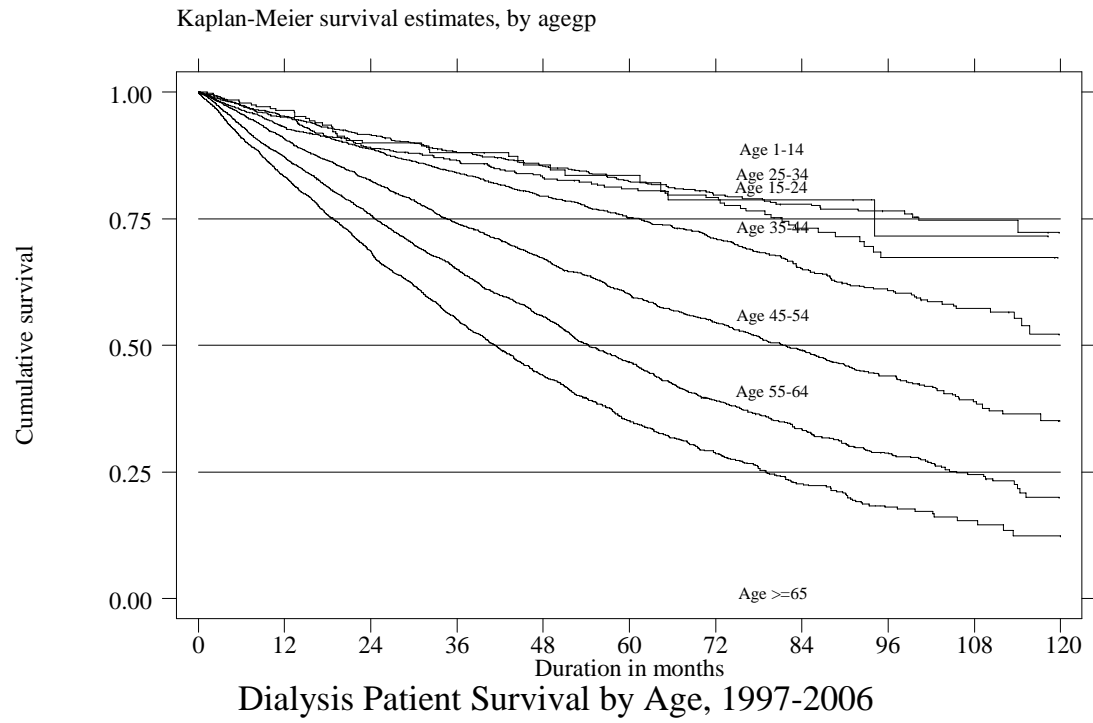


Table 3.2.4: Unadjusted patient survival by Diabetes status, 1997-2006

Diabetes status Interval (months)	Non-Diabetic			Diabetic		
	No.	% Survival	SE	No.	% Survival	SE
6	10287	96	0	9810	93	0
12	8967	92	0	8070	86	0
24	6887	86	0	5444	73	0
36	5258	81	0	3484	61	1
48	3908	76	0	2181	51	1
60	2805	70	1	1297	41	1
72	1938	65	1	759	35	1
84	1256	61	1	410	29	1
96	718	56	1	210	24	1
108	328	53	1	63	20	1
120	25	49	1	5	15	2

* No. = Number at risk SE=standard error

Figure 3.2.4: Unadjusted patient survival by Diabetes status, 1997-2006

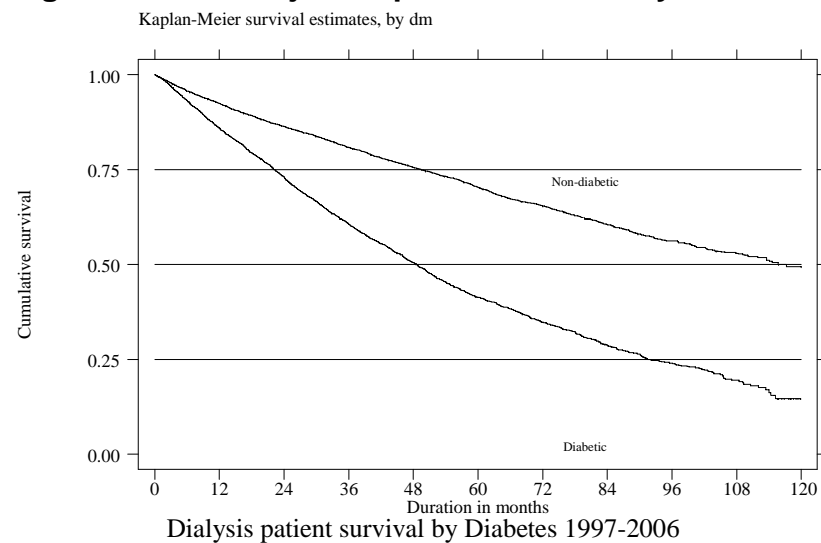


Figure 3.3.1(a): Variation in % Survival at 1-year adjusted to age and diabetes, 2000-2006

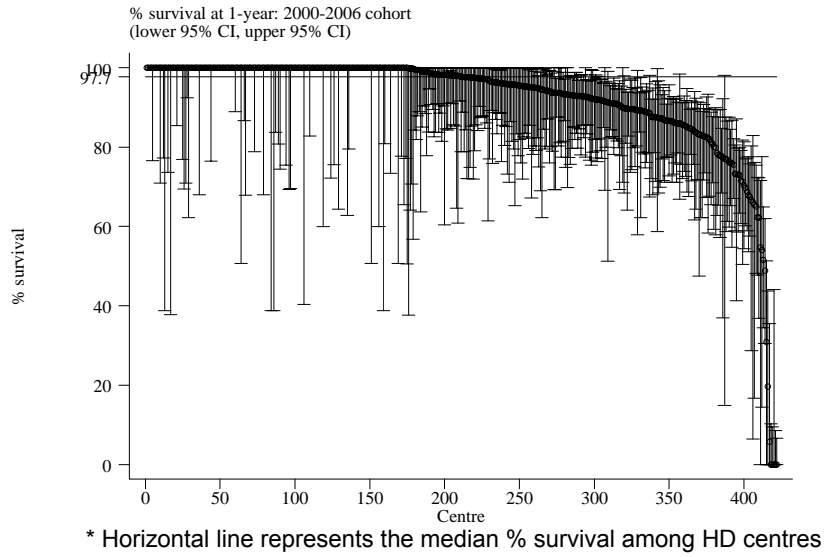


Figure 3.3.1(b): Variation in % Survival at 5-years adjusted to age and diabetes, 2000-2006

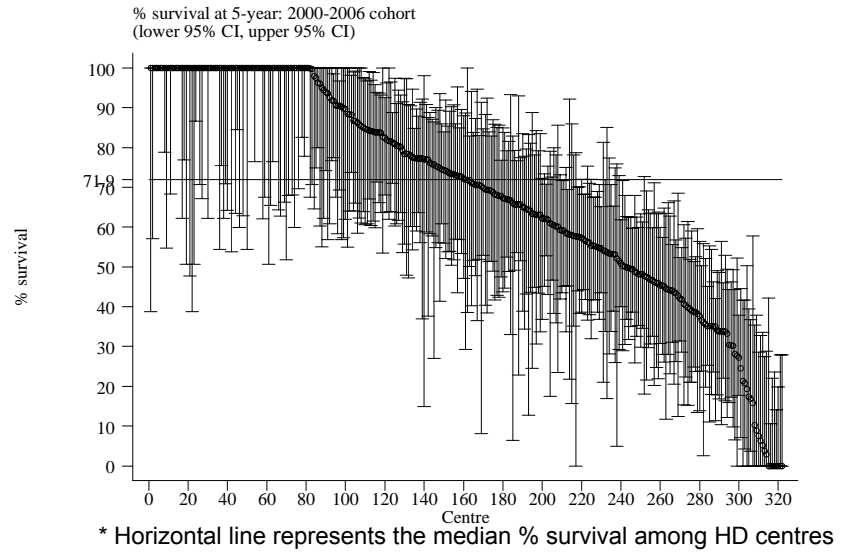
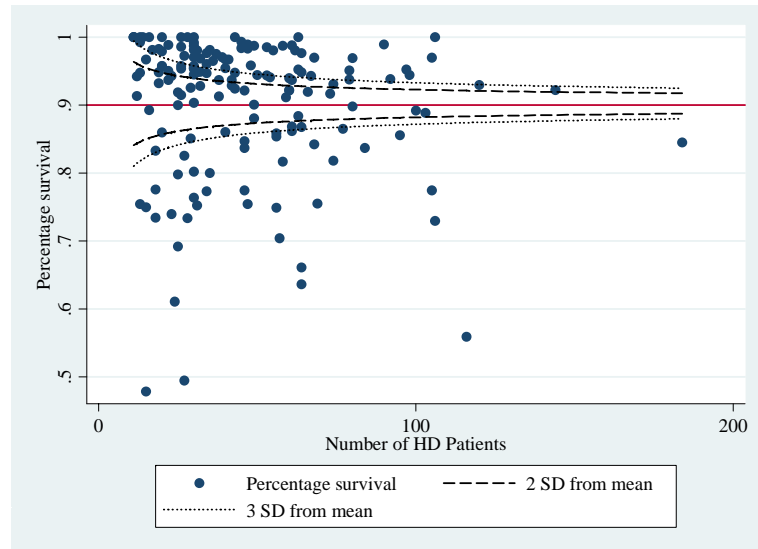
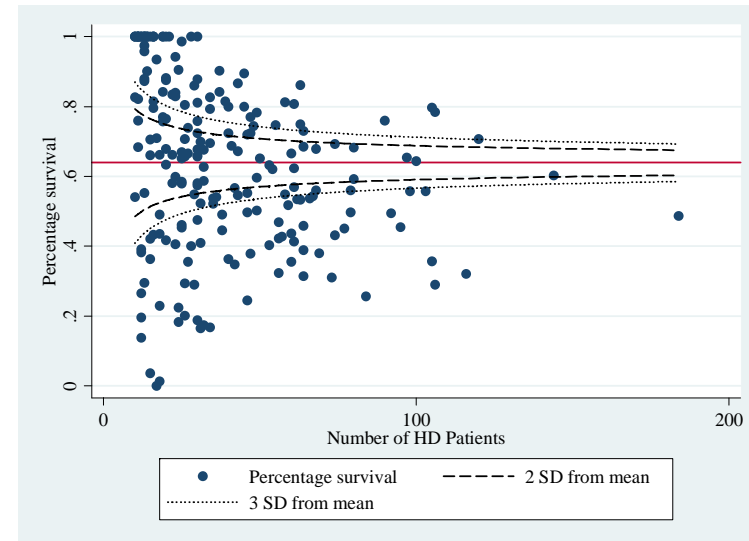


Figure 3.3.1(c): Funnel plot for adjusted age at 60 and diabetes at 1 year after 90 days survival; 1997-2002 cohorts (HD centres)



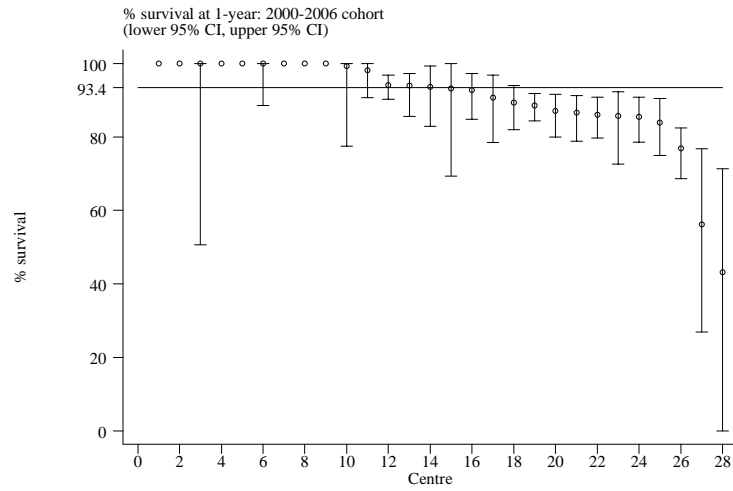
*Centres with new patients <10 were excluded from this analysis.

Figure 3.3.1(d): Funnel plot for adjusted age at 60 and diabetes at 5 years after 90 days survival; 1997-2002 cohorts (HD centres)



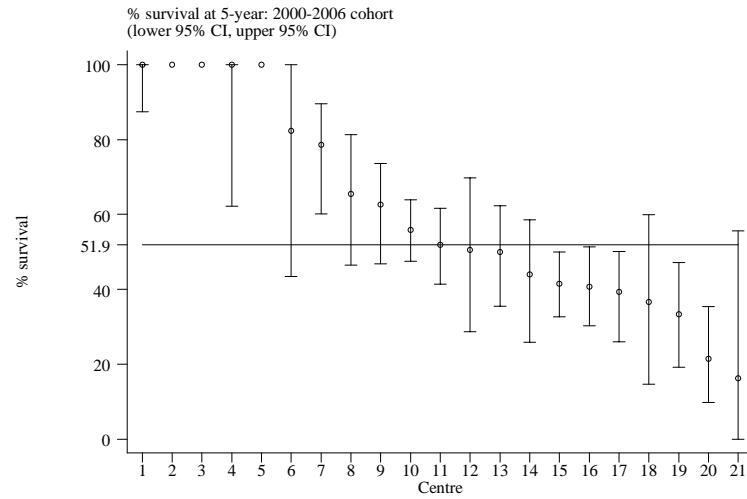
*Centres with new patients <10 were excluded from this analysis.

Figure 3.3.2(a): Variation in % Survival at 1-year adjusted to age and diabetes, 2000-2006



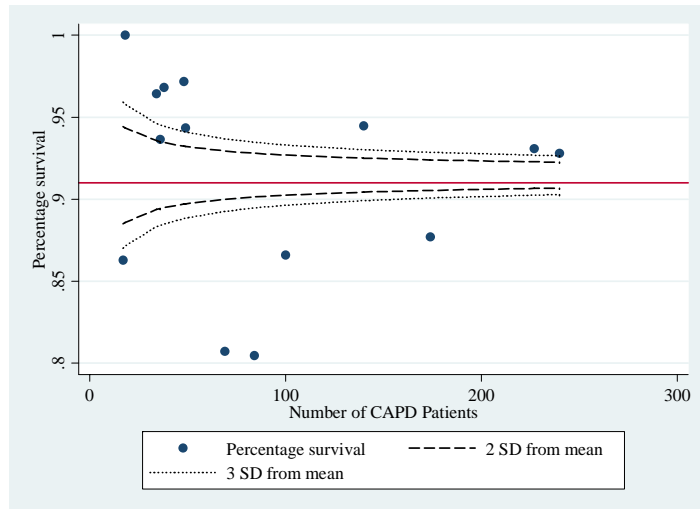
* Horizontal line represents the median % survival among CAPD centres

Figure 3.3.2(b): Variation in % Survival at 5-years adjusted to age and diabetes, 2000-2006



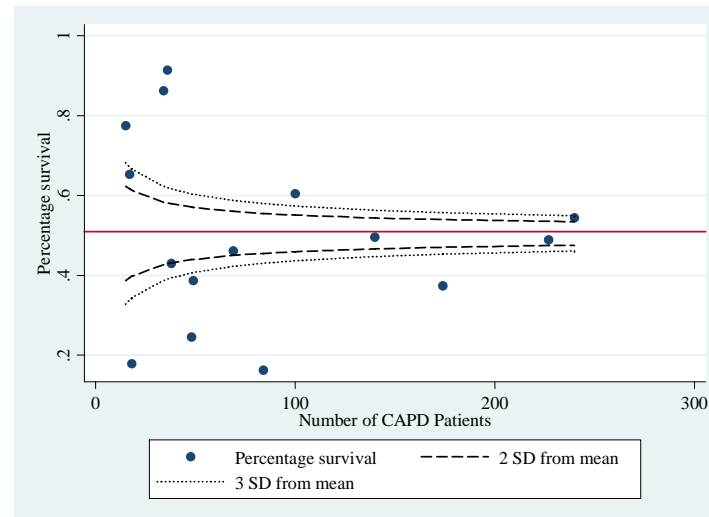
* Horizontal line represents the median % survival among CAPD centres

Figure 3.3.2(c): Funnel plot for adjusted age at 60 and diabetes at 1 year after 90 days survival; 1997-2002 cohorts (CAPD centres)



*Centres with new patients <10 were excluded from this analysis.

Figure 3.3.2(d): Funnel plot for adjusted age at 60 and diabetes at 5 years after 90 days survival; 1997-2002 cohorts (CAPD centres)



*Centres with new patients <10 were excluded from this analysis.

Table 3.4.1: Adjusted hazard ratio for mortality of dialysis patients (1997-2006 cohort)

Factors	N	Hazard ratio	95% CI	P value
Age (years):				
0-14(ref.*)	331	1.00		
15-24	1045	1.63	(1.13, 2.34)	0.01
25-34	1856	1.47	(1.03, 2.09)	0.03
35-44	3172	2.06	(1.46, 2.90)	0.00
45-54	5797	2.81	(2.00, 3.95)	0.00
55-64	6301	3.73	(2.66, 5.24)	0.00
≥65	4709	5.06	(3.60, 7.12)	0.00
Gender:				
Male (ref.*)	12897	1.00		
Female	10314	0.89	(0.84, 0.94)	0.00
Primary diagnosis:				
Unknown/ Uncertain (ref.*)	6622	1.00		
Diabetes mellitus	11285	1.60	(1.50, 1.70)	0.00
GN/ SLE	1952	0.92	(0.81, 1.03)	0.16
Polycystic kidney	315	1.14	(0.91, 1.45)	0.26
Obstructive Nephropathy	763	1.09	(0.94, 1.25)	0.26
Others	2274	1.06	(0.96, 1.17)	0.24
Year start dialysis:				
1997-8 (ref.*)	2546	1.00		
1999-2000	3563	1.06	(0.98, 1.14)	0.14
2001-2002	4752	1.10	(1.02, 1.19)	0.01
2003-2006	12350	1.10	(1.01, 1.18)	0.02
Modality:				
CAPD	3069	1.35	(1.24, 1.48)	0.00
HD (ref*)	20142	1.00		

Table 3.4.1: Adjusted hazard ratio for mortality of dialysis patients (1997-2006 cohort) – cont'd

Factors	N	Hazard ratio	95% CI	P value
BMI:	2257			
<18.5	15615	1.52	(1.37, 1.70)	0.00
18.5-<25	5339	1.34	(1.26, 1.43)	0.00
≥25(ref.*)				
Serum albumin (g/L):				
<30	1347	4.21	(3.77, 4.69)	0.00
30-<35	2952	2.33	(2.14, 2.54)	0.00
35-<40	11046	1.70	(1.59, 1.82)	0.00
≥40(ref.*)	7866	1.00		
Serum cholesterol (mmol/L):				
<3.2	749	1.11	(0.96, 1.28)	0.17
3.2-<5.2	16703	1.16	(1.10, 1.24)	0.00
≥5.2(ref.*)	5759	1.00		
KT/V				
<1.0	358	1.55	(1.30, 1.85)	0.00
1.0-<1.2	1486	1.04	(0.94, 1.16)	0.44
1.2-<1.4(ref.*)	4783	1.00		
1.4-<1.6	6126	0.89	(0.83, 0.95)	0.00
≥1.6	10458	0.80	(0.74, 0.86)	0.00
Diastolic BP (mmHg):				
<70	2548	0.89	(0.01, 0.82)	0.96
70-<80	8465	0.95	(0.90, 1.00)	0.07
80-<90(ref.*)	9358	1.00		
90-<100	2353	1.10	(1.00, 1.21)	0.04
≥100	487	1.96	(1.67, 2.31)	0.00

Table 3.4.1: Adjusted hazard ratio for mortality of dialysis patients (1997-2006 cohort) – cont'd

Factors	N	Hazard ratio	95% CI	P value
Hemoglobin (g/dL):				
<8	2378	3.07	(2.74, 3.45)	0.00
8-<9	3567	1.96	(1.75, 2.19)	0.00
9-<10	10019	2.13	(1.92, 2.36)	0.00
10-<11	4084	1.09	(0.97, 1.22)	0.14
11-<12 (ref.*)	2058	1.00		
≥12	1105	0.92	(0.78, 1.09)	0.32
Serum Calcium (mmol/L):				
<2.2	6325	0.85	(0.80, 0.90)	0.00
2.2-<2.6(ref.*)	16240	1.00		
≥2.6	646	1.63	(1.43, 1.85)	0.00
Calcium Phosphate product (mmol ² /L ²):				
<3.5	7163	1.00	(0.91, 1.10)	0.98
3.5-<4.5(ref.*)	10759	1.00		
4.5-<5.5	3668	0.69	(0.62, 0.77)	0.00
≥5.5	1621	0.57	(0.47, 0.69)	0.00
Serum Phosphate (mmol/L):				
<1.6	7879	0.90	(0.82, 0.98)	0.02
1.6-<2.0(ref.*)	10244	1.00		
2.0-<2.2	2190	0.98	(0.87, 1.10)	0.76
2.2-<2.4	1303	1.19	(1.03, 1.38)	0.02
2.4-<2.6	794	1.23	(1.00, 1.52)	0.05
≥2.6	801	2.05	(1.64, 2.56)	0.00
HBsAg:				
Negative(ref.*)	22259	1.00		
Positive	952	1.09	(0.98, 1.22)	0.12

Table 3.4.1: Adjusted hazard ratio for mortality of dialysis patients (1997-2006 cohort) – cont'd

Factors	N	Hazard ratio	95% CI	P value
Anti-HCV:				
Negative(ref. *)	22121	1.00		
Positive	1090	0.85	(0.77, 0.94)	0.00
Cardiovascular disease (CVD):				
No CVD(ref. *)	18599	1.00		
CVD	4612	1.28	(1.22, 1.35)	0.00

ref: Reference group

Figure 3.4.1(a): Adjusted hazard ratio for mortality of dialysis patients by diastolic blood pressure (1997-2006 cohort)

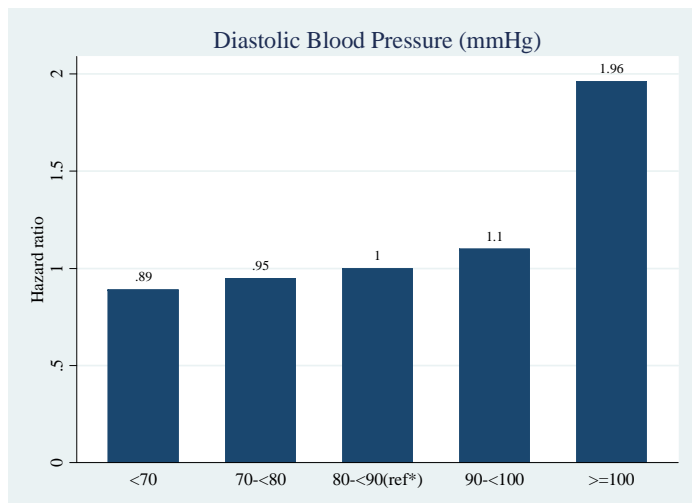


Figure 3.4.1(b): Adjusted hazard ratio for mortality of dialysis patients by serum phosphate (1997-2006 cohort)

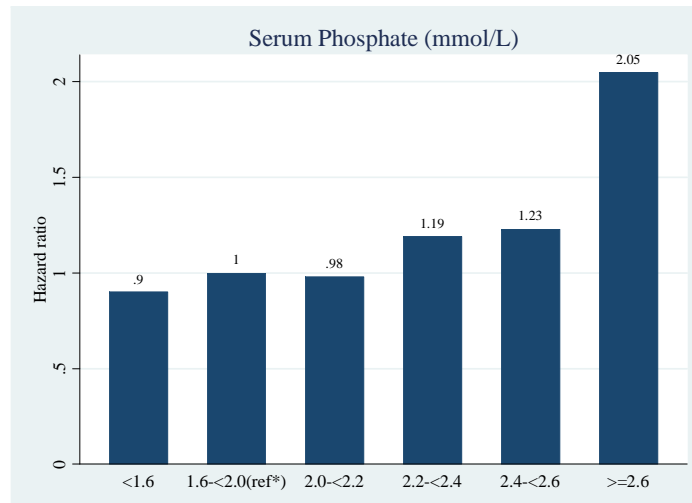


Figure 3.4.1(c): Adjusted hazard ratio for mortality of dialysis patients by KT/V (1997-2006 cohort)

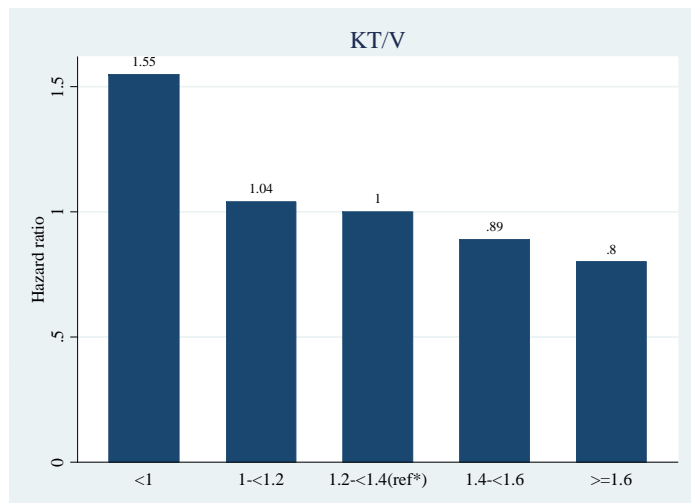


Figure 3.4.1(d): Adjusted hazard ratio for mortality of dialysis patients by haemoglobin (1997-2006 cohort)

