



CHAPTER 7

TRANSPLANT WAITING LIST

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Data from ANZDATA and the
National Organ Matching System
of Australia (NOMS)

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The waiting list data reported here are derived from the Australian National Organ Matching System (NOMS) and ANZDATA. We are working with the New Zealand Blood Service to undertake similar analyses for NZ patients.

Waiting list data refers to waiting for deceased donor (DD) kidney-only transplants. Patients wait-listed for multi-organ transplants are excluded. Recipients of living donor (LD) transplants may or may not be on the waiting list prior to transplantation. To understand the relative contributions of deceased and living donor transplants to patients on / not on the kidney-only waiting list, DD and LD transplants to recipients not on the kidney-only waiting list are also included.

The numbers of people moving on and off the active waiting list for any reason are shown. Patients are categorised as either active or off the list - an "interim" or "temporarily off list" status is considered to be off list, since these patients will not be allocated kidneys. A number of de-listed patients may return to the list in subsequent years. If a patient was listed and de-listed more than once in a calendar year, only the net change is counted.

In the tables below, the rows describe:

- Number on the active list at the beginning of the year
- Number added to the active list during the year
- Number removed from the active list during the year
- Number of deceased donor (DD) transplants to people on the waiting list
- Number of living donor (LD) transplants to people on the waiting list
- Number of transplants performed outside Australia / New Zealand to people on the waiting list
- Number who died while on the active waiting list
- Number on the waiting list at the end of the year
- Number of DD transplants to recipients not on the waiting list*
- Number of LD transplants to recipients not on the waiting list

* includes patients listed for a multi-organ transplant who received a kidney transplant +/- another organ, and rarely, manual allocation of a DD kidney to a patient not on the waiting list

Figure 7.1 shows the basic stock and flow tables for Australia for each year. The number of patients waiting for a kidney transplant has been steadily falling over time despite increasing numbers of patients being listed each year.

Figure 7.2 shows these data for non-indigenous and indigenous patients respectively.

Figure 7.1						
Australian Deceased Donor Kidney Waiting List Stock and Flow Totals						
Event	2007	2008	2009	2010	2011	2012
Active start of year	1339	1333	1251	1264	1183	1087
Made active	592	653	670	630	707	736
Taken off list	167	182	178	149	197	153
Deceased donor transplant	315	417	401	499	533	554
Living donor transplant	95	122	64	58	62	45
Overseas transplant	8	2	4	1	2	0
Died on list	13	12	10	4	9	6
Active end of year	1333	1251	1264	1183	1087	1065
Deceased donor transplant off list	29	42	45	51	37	53
Living donor transplant off list	176	232	263	238	193	193

Figure 7.2

Australian Deceased Donor Kidney Waiting List							
Stock and Flow for each Year by Indigenous Status							
Race	Event	2007	2008	2009	2010	2011	2012
Non-indigenous	Active start of year	1285	1281	1205	1219	1134	1054
	Made active	573	621	642	592	678	706
	Taken off list	162	174	167	141	178	145
	Deceased donor transplant	301	393	384	474	508	534
	Living donor transplant	93	118	63	58	61	45
	Overseas transplant	8	2	4	1	2	0
	Died on list	13	10	10	3	9	5
	Active end of year	1281	1205	1219	1134	1054	1031
	Deceased donor transplant off list	29	42	42	48	36	53
	Living donor transplant off list	174	229	260	238	192	193
Indigenous	Active start of year	54	52	46	45	49	33
	Made active	19	32	28	38	29	30
	Taken off list	5	8	11	8	19	8
	Deceased donor transplant	14	24	17	25	25	20
	Living donor transplant	2	4	1	0	1	0
	Overseas transplant	0	0	0	0	0	0
	Died	0	2	0	1	0	1
	Active end of year	52	46	45	49	33	34
	Deceased donor transplant off list	0	0	3	3	1	0
	Living donor transplant off list	2	3	3	0	1	0

The numbers of both dialysis patients and transplants vary with age; in Figure 7.3 the stock and flow for the years 2008-12 is shown by broad age groups. As expected, older patients are less likely to be listed than younger patients, and the proportion removed from the list is higher.



Figure 7.3

Australian Deceased Donor Kidney Waiting List							
Stock and Flow for each Year by Age							
Age	Event	2007	2008	2009	2010	2011	2012
< 45	Active start of year	359	382	334	380	386	407
	Made active	186	186	227	212	268	274
	Taken off list	31	53	38	42	43	39
	Deceased donor transplant	94	126	113	137	170	205
	Living donor transplant	35	53	25	27	31	28
	Overseas transplant	1	1	3	0	1	0
	Died	2	1	2	0	2	3
	Active end of year	382	334	380	386	407	406
	Deceased donor transplant off list	18	32	28	31	22	33
	Living donor transplant off list	89	100	123	127	97	110
45 - 54	Active start of year	375	386	364	373	345	301
	Made active	170	175	180	175	192	217
	Taken off list	42	45	37	43	61	41
	Deceased donor transplant	84	119	110	150	160	166
	Living donor transplant	27	29	20	8	11	7
	Overseas transplant	4	0	1	1	0	0
	Died	2	4	3	1	4	1
	Active end of year	386	364	373	345	301	303
	Deceased donor transplant off list	10	7	14	13	13	16
	Living donor transplant off list	42	56	52	51	38	37
55 - 64	Active start of year	427	394	393	366	346	309
	Made active	160	203	194	181	202	196
	Taken off list	58	44	68	36	64	57
	Deceased donor transplant	103	123	131	148	154	152
	Living donor transplant	22	30	18	15	17	9
	Overseas transplant	2	1	0	0	1	0
	Died	8	6	4	2	3	2
	Active end of year	394	393	366	346	309	285
	Deceased donor transplant off list	1	3	3	5	2	4
	Living donor transplant off list	33	48	68	52	44	35
65 +	Active start of year	178	171	160	145	106	70
	Made active	76	89	69	62	45	49
	Taken off list	36	40	35	28	29	16
	Deceased donor transplant	34	49	47	64	49	31
	Living donor transplant	11	10	1	8	3	1
	Overseas transplant	1	0	0	0	0	0
	Died	1	1	1	1	0	0
	Active end of year	171	160	145	106	70	71
	Deceased donor transplant off list	0	0	0	2	0	0
	Living donor transplant off list	12	28	20	8	14	11

Figure 7.4

Australian Deceased Donor Kidney Waiting List							
Stock and Flow for each Year by State							
State	Event	2007	2008	2009	2010	2011	2012
NSW/ACT	Active start of year	700	700	667	614	549	518
	Made active	240	248	217	200	250	261
	Taken off list	90	105	107	71	108	80
	Deceased donor transplant	84	110	118	163	132	143
	Living donor transplant	53	59	34	28	32	28
	Overseas transplant	4	1	2	1	2	0
	Died on list	9	6	9	2	7	2
	Active end of year	700	667	614	549	518	526
	Deceased donor transplant off list	13	18	17	17	16	24
	Living donor transplant off list	41	58	74	56	57	47
VIC/TAS	Active start of year	351	348	326	352	353	322
	Made active	144	169	203	212	212	244
	Taken off list	36	43	38	38	44	43
	Deceased donor transplant	81	114	119	155	180	172
	Living donor transplant	26	33	18	17	19	12
	Overseas transplant	2	0	2	0	0	0
	Died on list	2	1	0	1	0	3
	Active end of year	348	326	352	353	322	336
	Deceased donor transplant off list	12	18	14	23	15	13
	Living donor transplant off list	61	84	79	87	64	73
QLD	Active start of year	129	128	139	163	141	127
	Made active	97	123	123	101	116	112
	Taken off list	19	10	18	22	15	12
	Deceased donor transplant	66	87	75	94	109	120
	Living donor transplant	12	12	6	7	5	1
	Overseas transplant	1	1	0	0	0	0
	Died on list	0	2	0	0	1	0
	Active end of year	128	139	163	141	127	106
	Deceased donor transplant off list	0	2	2	2	2	6
	Living donor transplant off list	31	29	49	36	31	31



Figure 7.4 (contd...)

Australian Deceased Donor Kidney Waiting List							
Stock and Flow for each Year by State							
State	Event	2007	2008	2009	2010	2011	2012
SA/NT	Active start of year	52	67	58	51	52	57
	Made active	74	74	62	61	72	76
	Taken off list	7	3	7	5	8	10
	Deceased donor transplant	52	67	57	50	56	64
	Living donor transplant	0	12	4	5	3	3
	Overseas transplant	0	0	0	0	0	0
	Died	0	1	1	0	0	1
	Active end of year	67	58	51	52	57	55
	Deceased donor transplant off list	1	1	5	6	4	7
	Living donor transplant off list	26	29	19	23	13	20
WA	Active start of year	107	90	61	84	88	63
	Made active	37	39	65	56	57	43
	Taken off list	15	21	8	13	22	8
	Deceased donor transplant	32	39	32	37	56	55
	Living donor transplant	4	6	2	1	3	1
	Overseas transplant	1	0	0	0	0	0
	Died	2	2	0	1	1	0
	Active end of year	90	61	84	88	63	42
	Deceased donor transplant off list	3	3	7	3	0	3
	Living donor transplant off list	17	32	42	36	28	22

Differences between states (combined into transplanting regions) are shown in figure 7.4. Approximately half of all patients on the waiting list are in NSW. Waiting list numbers in each state are reflective of both listing practices and donation rates, both current and historical. The fall in the number of wait-listed patients has predominantly occurred in NSW, and to a lesser extent WA.

Figure 7.5

Australian Deceased Donor Kidney Waiting List
Stock and Flow for each Year by Blood Group

Blood	Event	2007	2008	2009	2010	2011	2012
A	Active start of year	417	446	400	415	357	295
	Made active	219	222	258	233	242	286
	Taken off list	50	63	56	57	58	44
	Deceased donor transplant	109	162	158	209	217	219
	Living donor transplant	27	41	26	21	25	11
	Overseas transplant	2	0	1	0	0	0
	Died on list	2	2	2	4	4	3
	Active end of year	446	400	415	357	295	304
	Deceased donor transplant off list	11	9	11	12	10	23
	Living donor transplant off list	80	85	87	100	72	75
AB	Active start of year	20	19	9	17	11	22
	Made active	16	18	21	25	35	29
	Taken off list	2	2	0	2	2	1
	Deceased donor transplant	15	23	13	29	22	28
	Living donor transplant	0	3	0	0	0	3
	Overseas transplant	0	0	0	0	0	0
	Died on list	0	0	0	0	0	0
	Active end of year	19	9	17	11	22	19
	Deceased donor transplant off list	2	1	4	4	2	1
	Living donor transplant off list	2	12	9	10	3	12
B	Active start of year	183	165	149	164	169	160
	Made active	75	71	89	80	92	111
	Taken off list	22	26	24	17	27	26
	Deceased donor transplant	57	50	38	50	65	63
	Living donor transplant	12	9	10	7	7	4
	Overseas transplant	0	0	0	1	2	0
	Died on list	2	2	2	0	0	0
	Active end of year	165	149	164	169	160	178
	Deceased donor transplant off list	0	4	6	5	1	3
	Living donor transplant off list	13	27	30	23	29	21
O	Active start of year	716	701	692	668	646	610
	Made active	281	342	302	292	338	310
	Taken off list	92	91	98	73	110	82
	Deceased donor transplant	134	181	191	211	229	244
	Living donor transplant	55	69	28	30	30	27
	Overseas transplant	6	2	3	0	0	0
	Died on list	9	8	6	0	5	3
	Active end of year	701	692	668	646	610	564
	Deceased donor transplant off list	14	21	17	19	17	18
	Living donor transplant off list	71	91	108	97	83	80

Figure 7.5 shows the same data by blood group. Turnover is highest for blood group AB patients and generally lowest for blood group O. The totals are slightly lower than Figure 7.1 due to a small number of patients with missing blood group data (13 in 2012).



Figure 7.6 shows the survival of patients who commenced dialysis in Australia over 2007-2012 and were subsequently wait-listed for a deceased donor kidney-only transplant. Survival is shown from the time of listing and is censored at transplantation (but not at removal from the list). The mortality rate of this highly selected patient group was low at 1.6 deaths per 100 patient-years (95% CI 1.3-2.1).

Figure 7.6

