

17 June 2015

Dear Colleagues

The National Renal Transplant Service (NRTS) was established as a national service in September 2014, following endorsement from the National Health Board and the Minister of Health. Through clinical leadership and governance, the NRTS aims to provide strategic oversight, direction and support for implementation of initiatives to improve the volume of live donor transplantations.

The NRTS is responsible for an overall target of:

- increasing the number of live donor transplants by 10 per annum, from a base of approximately 110 live and deceased donor transplants per annum to 160 per annum in 2018/19.

In 2014, there were 138 kidney transplants performed in New Zealand. Although this number represents a promising increase on previous years, as a result of a lot of effort by a dedicated group of clinicians and District Health Boards (DHB) over several years, more than 2,500 people are still on dialysis for end stage kidney disease.

Ongoing and clinically-led engagement with DHB Chief Executives and Clinical Directors of Renal Services is essential to sustain an increase in living kidney transplants and achieve its target.

The NRTS has prepared a report of Kidney Transplant Activity in New Zealand for 2014 (attached). The report shows that the transplantation rate:

- 1) varies substantially between District Health Boards (per 100 dialysis patients)
- 2) has increased within most but not all DHBs compared to the three years prior.

I would encourage you to discuss this report within your department and within your DHBs management structures.

If you have any questions regarding the information in this report, please do not hesitate to contact me via email Nick.Cross@cdhb.health.nz.

Yours sincerely



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Kidney Transplant Activity New Zealand

2014 Calendar Year

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Data Collection

Data is provided directly to the National Renal Transplantation Service (NRTS) from the three Transplanting Units and from individual units to the Australian and New Zealand Dialysis and Transplantation Registry (ANZDATA), provided via the National Renal Advisory Board (NRAB).

Transplantation Services in New Zealand

Kidney transplantation is treatment for end stage kidney patients who would otherwise be on lifelong dialysis. Dialysis and transplantation are collectively referred to as renal replacement therapy. Transplantation provides better quality of life, reduces risk of morbidity and mortality, and is less costly than dialysis for patients eligible to undergo transplantation.

Within New Zealand there are three types of district health boards (DHBs), with respect to provision of transplantation services:

- 1) Transplanting DHBs – these DHBs provide kidney transplantation services for their local population and several other DHBs. These DHBs also have comprehensive dialysis services. There are three of these.
- 2) Referring DHBs with “comprehensive” dialysis services. These DHBs provide their own dialysis services without any involvement from other DHBs. There are eight of these.
- 3) DHBs without comprehensive dialysis services. These DHBs are dependent on referring or transplanting DHBs for at least part of their dialysis service. There are 9 of these.

Data presented by DHBs without comprehensive dialysis services include other DHBs as noted in Table 2. Please note that “comprehensive” is an arbitrary distinction. For example, Nelson/Marlborough provides many dialysis services (with support from Wellington for some elements only), but is included in Capital & Coast DHB’s figures.

Three district health boards (Auckland, Capital & Coast and Canterbury) provide kidney transplantation procedures (living and deceased donor transplants) regionally (labelled “Auckland”, “Wellington” and “Christchurch”). Assessment of recipients and potential living donors is complex and is, at least partially, provided by referring DHBs in many cases. Referring DHBs send patients to a single transplant centre for routine transplants. Auckland DHB provides multi-organ transplants (kidney plus another organ) and paediatric transplantation for the entire country. ABO incompatible transplantation is provided in Auckland and Christchurch only.

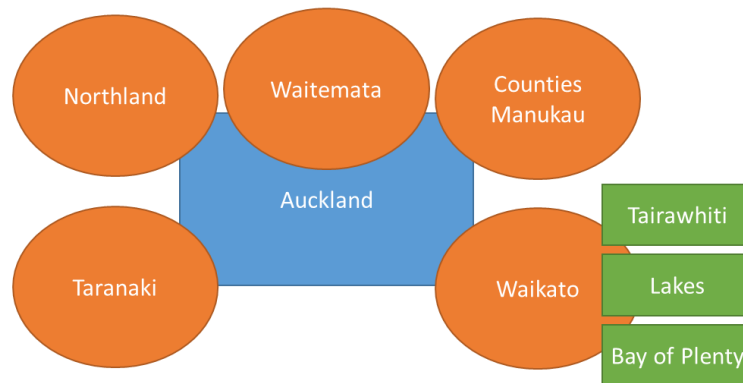
The arrangements of DHBs into three regional transplantation services is shown in Figure 1. Some patients are, therefore, dependent on services provided via three DHBs for access to transplantation.

Transplant rates are presented per 100 dialysis patients. It should be noted that not all dialysis patients are suitable for transplantation, due to coexistent comorbidities. This may explain some variability between units. No attempt is made to adjust for differences in comorbidities in populations cared for by different renal units.

Transplanting DHBs provide the immediate after care following transplantation, with recipients and donors returning to their DHB of domicile for long term care.

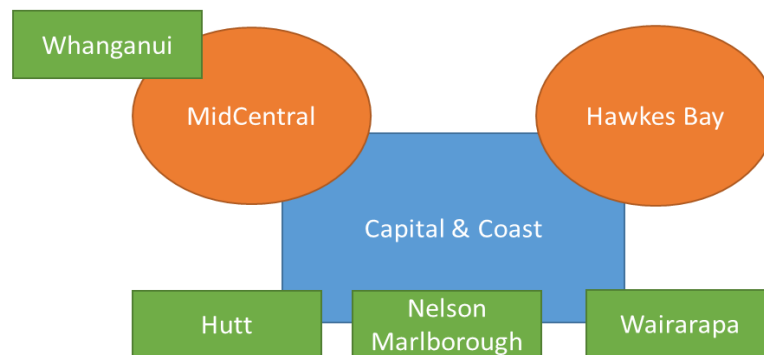
Figure 1: Arrangement of DHBs for Provision of Kidney Transplantation Services

Auckland Renal Transplant Group

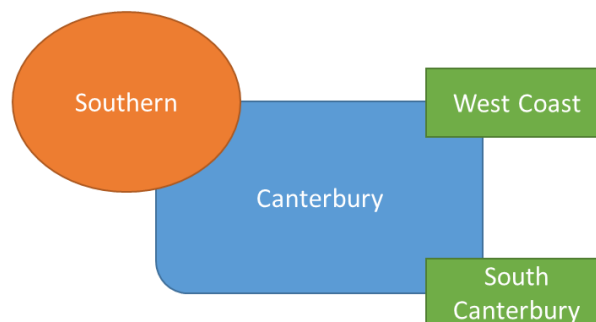


Auckland provide national kidney transplantation services for all other DHBs: Kidney-Pancreas, ABO incompatible (except Canterbury) and paediatric transplantation

Wellington Renal Transplant Service



South Island Kidney Transplant Committee



Legend:
■ Transplanting DHBS
■ DHBs with comprehensive dialysis services
■ DHBs without comprehensive dialysis services

Total Transplants performed in New Zealand

There were 138 kidney transplants performed in New Zealand in 2014 (30.3 per million population (pmp)). This is 27% more and 2.7 standard deviations greater than the average of the last ten years (mean 109.1, standard deviation 10.9 transplants per year).

This included 72 living donor and 66 deceased donor kidney transplants. There were two living donor kidney exchange chains (each comprising two transplants).

This is the largest total number of kidney transplants performed in New Zealand in a calendar year (previous greatest was 123 in 2007).

At the currently estimated population of 4.56 million, this is the first time New Zealand's (NZ's) total per million population transplant rate has exceeded 30 (previous highest was 29.7 in 2002, comprising 17.5 pmp transplants from deceased donors and 12.2 pmp transplants from living donors).

Table 1: Transplant Characteristics by Transplant Centre

	Auckland	Wellington	Christchurch	Overall	Pmp
Kidney Transplants	88	32	18	138	30.3
Living donor, n (%)	40 (45)	18 (56)	14(78)	72(52)	15.8
Deceased donor, n (%)	48 (55)	14 (44)	4 (22)	66(48)	14.5

Compared to the most recent data available from WHO (2010), NZ's 2014 results would place it 33rd of 70 countries reporting deceased kidney donor transplantation activity and 17th of 81 countries reporting living kidney donor transplantation activity per million population.

Transplants per 100 Dialysis Patients, by dialysis unit and DHB of domicile

Overall, there were 5.3 kidney transplants per 100 dialysis patients in New Zealand in 2014. This was a substantial increase on the annual average of 4.6, from the three prior years.

There was an improvement in the rate of transplants per 100 dialysis patients at a number of DHBs compared to the mean values from the prior three years (notably at Waitemata, Auckland, Counties Manukau, MidCentral and Capital & Coast DHBs).

Only two DHBs recorded a reduction in the rate of transplant per 100 dialysis patients in 2014 compared to the mean of the prior three years. Although Canterbury had a reduction, it still had the highest transplantation rate of any DHB. Hawke's Bay is one of the smaller units and, as such, may expect greater year to year variability in this measure.

Table 2: Transplants by DHB of Domicile

	Deceased Donor	Living Donor	Total	Dialysis Prevalent Numbers (2013)	Transplants per 100 Dialysis Patients	
					2014	Annual Mean 2011-2013
Starship	1	3	4	8	50	69
Auckland Region	45	35	80	1861	4.3	3.3
Northland	4	5	9	164	5.5	4.5
Waitemata	10	5	15	288	5.2	3.6 ³
Auckland	9	6	15	309	4.9	
Counties Manukau	13	11	24	576	4.2	2.7
Waikato (includes BOP, Lakes, Tairāwhiti)	9	5	14	472	3.0	2.8
Taranaki	0	3	3	52	5.8	5.8
Wellington Region	15	19	34	485	7.0	6.4
Hawke's Bay	0	2	2	97	2.1	7.1
MidCentral (includes Whanganui)	7	4	11	138	8.0	4.1
Capital & Coast (includes Wairarapa, Hutt, Nelson/Marlborough)	8	13	21	250	8.4	6.9
Christchurch Region	5	14	19	230	8.3	9.7
Canterbury (includes West Coast, South Canterbury)	4	8	12	135	8.9	11.7
Southern	1	6	7	95	7.4	7.1
Total	66	71	137	2584	5.3	4.6

Notes on table 2:

1. DHB of domicile is the recipients, at discharge from hospital. Living donors may come from different DHBs to their recipients.
2. Transplants per 100 prevalent dialysis patients at 31 December the year prior, per ANZDATA.
3. Annual Mean 2011-2013 for Auckland and Waitemata provided as a single unit (as they were for part of that period).
4. Private paying non-eligible patients (e.g. overseas residents, one in 2014) not included here.
5. Paediatric patients <=16 years, managed via Starship and transplanted in Auckland, are excluded from DHB of domicile.

Multi-organ Transplantation (all Auckland)

In 2014, there were two kidney-pancreas transplants performed (DHB of Domicile: Canterbury and Mid-Central) and one liver-kidney (DHB of Domicile: Waitemata). These are included above.

ABO Incompatible (ABOi)

ABOi are performed at Auckland and Christchurch, using a similar protocol (developed in Auckland). All ABOi are living donor transplants.

There were seven ABOi in 2014, five in Auckland (DHB of Domicile: Waitemata (two), Counties Manukau, Capital and Coast, Taranaki) and two in Canterbury (both DHB of domicile: Canterbury).