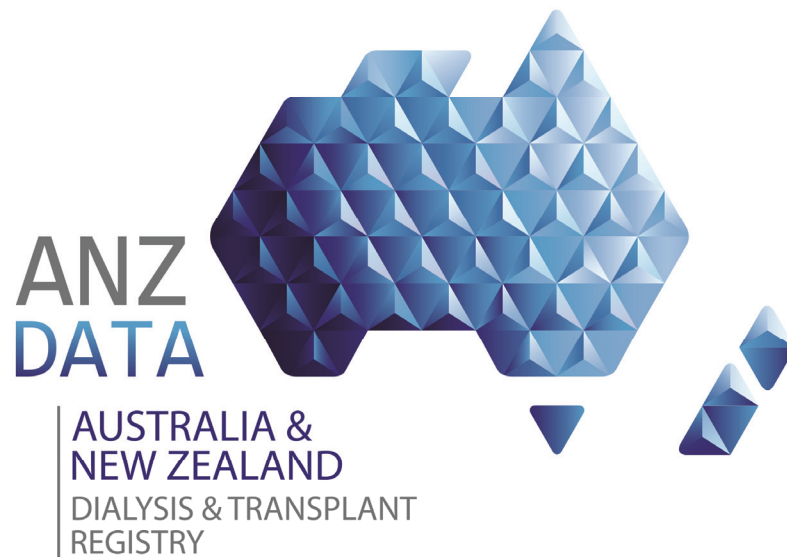


# Chapter 10

## Cancer



2016

ANZDATA Registry

39th Annual Report

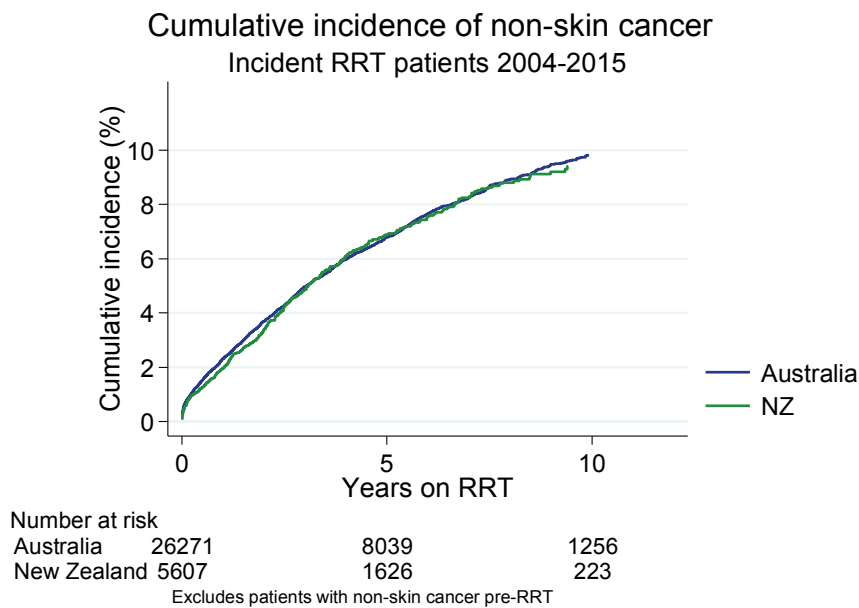
*Data to 31-Dec-2015*

## Incidence of Cancer on Renal Replacement Therapy

Figures 10.1-10.6 and table 10.1 show the cumulative incidence of non-skin cancer in patients receiving renal replacement therapy (RRT) during 2004-2015. These data are censored at loss to follow-up and recovery of native kidney function, and death is handled as a competing risk.

Figure 10.1 and table 10.1 show the cumulative incidence of any non-skin cancer on RRT, stratified by country at RRT start. The overall incidence is approximately 10% at 10 years. Figure 10.2 shows this incidence for new transplant recipients, stratified by country and age. These data are not censored at graft failure. Figure 10.3 shows cancer incidence in new dialysis patients, stratified by country and age, and censored at transplantation. Cancer is more common in older patients, and more common after transplantation than while on dialysis.

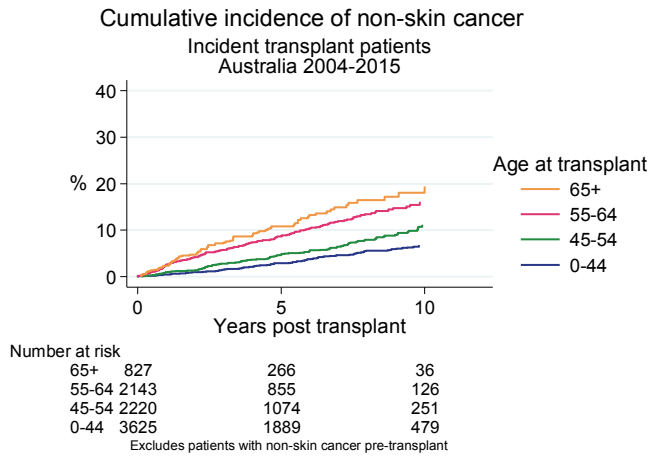
**Figure 10.1**



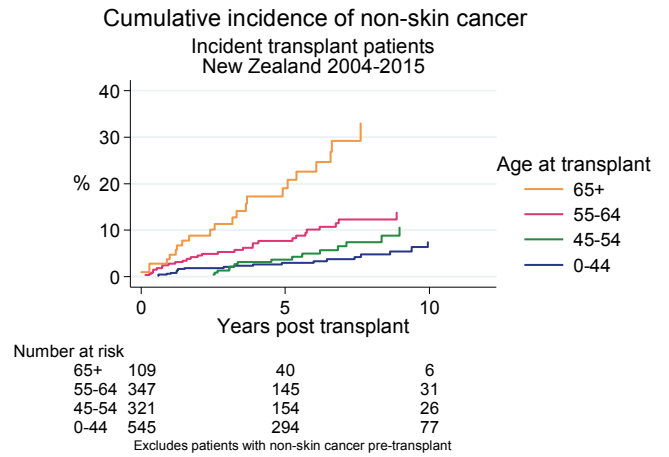
**Table 10.1. Cumulative Incidence of Non-Skin Cancer on Renal Replacement Therapy (% , 95% CI)**

Country	6 months	1 year	2 years	5 years	10 years
<b>Australia</b>	1.5 (1.4, 1.7)	2.3 (2.1, 2.5)	3.7 (3.5, 3.9)	6.8 (6.5, 7.1)	9.8 (9.3, 10.3)
<b>New Zealand</b>	1.3 (1.0, 1.6)	2.0 (1.6, 2.3)	3.4 (2.9, 3.9)	6.9 (6.2, 7.7)	9.4 (8.4, 10.4)

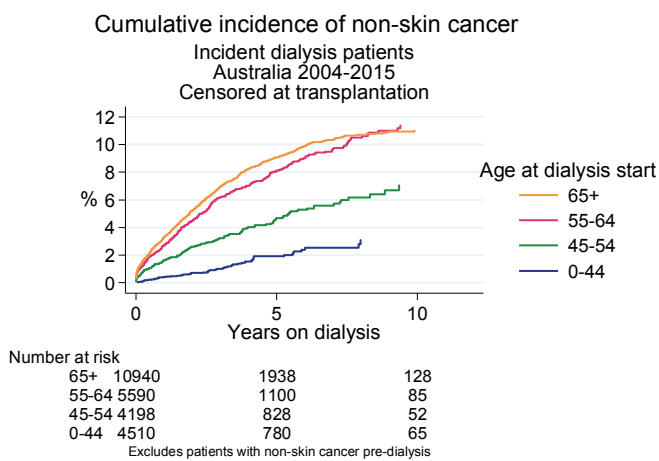
**Figure 10.2.1**



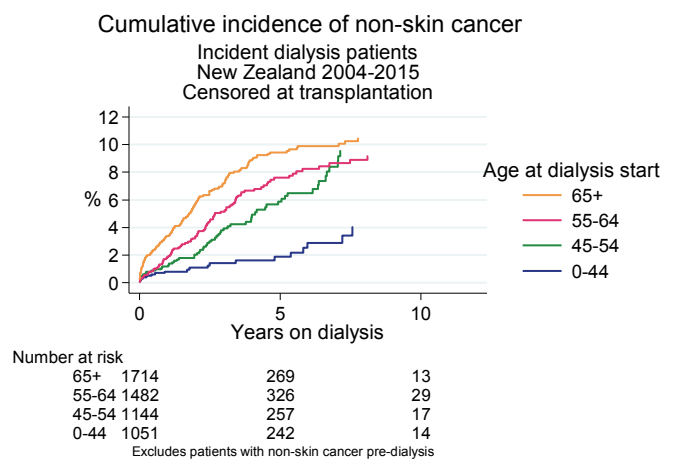
**Figure 10.2.2**



**Figure 10.3.1**

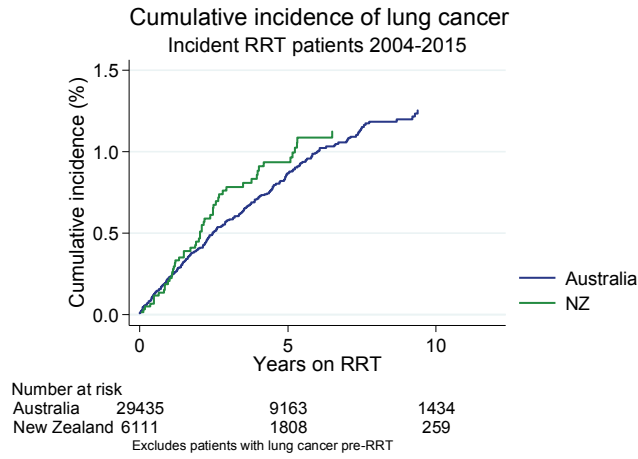


**Figure 10.3.2**

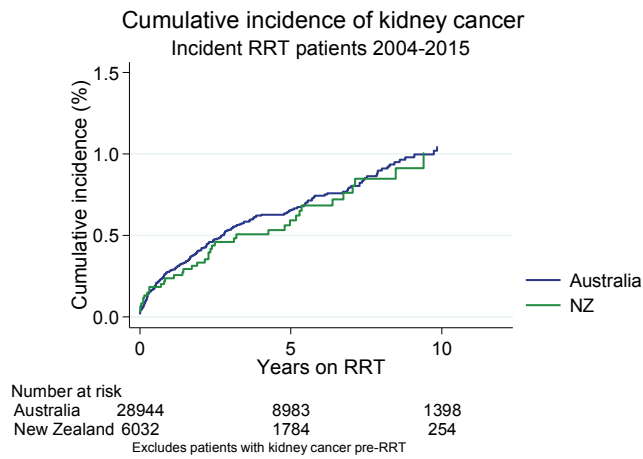


Figures 10.4 -10.6 show the incidence of the three most common cancer types among those on RRT in Australia and New Zealand. Cancer of the lung is the most common cancer type, followed by urinary tract and colorectal cancers.

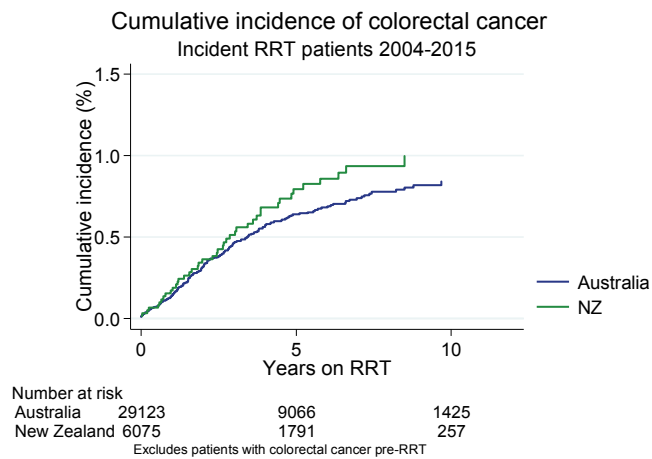
**Figure 10.4**



**Figure 10.5**



**Figure 10.6**



## Melanoma

In this year's report we focus on Colorectal Cancer. Over 2004-2015 there were 422 Colorectal Cancer diagnosed in patients receiving RRT in Australia or New Zealand. The melanoma rates (per 1000 patient-years) are shown in table 10.2, stratified by RRT modality; the rates increase with age and are similar in transplant and dialysis patients.

**Table 10.2 Colorectal Cancer Rates per 1000 Patient-Years 2004 - 2015**

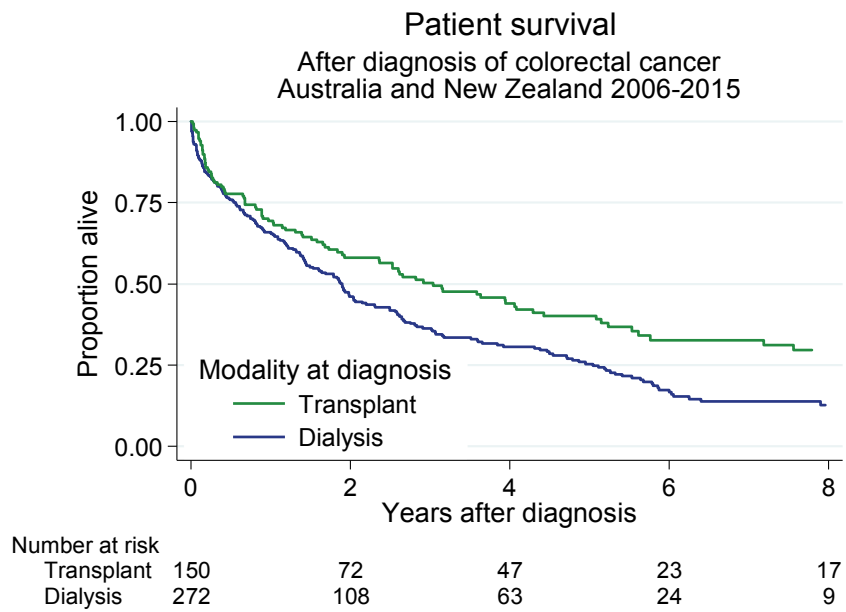
Age	Dialysis cancers	Dialysis exposure	Dialysis cancer rate (95% CI)	Transplant cancers	Transplant exposure	Transplant cancer rate (95% CI)
0-44	6	23.42	0.3 (0.1, 0.6)	8	37.43	0.2 (0.1, 0.4)
45-54	17	24.68	0.7 (0.4, 1.1)	16	28.4	0.6 (0.3, 0.9)
55-64	57	34.35	1.7 (1.3, 2.1)	51	29.12	1.8 (1.3, 2.3)
65+	192	67.88	2.8 (2.4, 3.3)	75	19.18	3.9 (3.1, 4.9)

The characteristics of the patients diagnosed with Colorectal Cancers are shown in table 10.3. Two of these patients had a previous Colorectal Cancer prior to commencing RRT.

<b>Table 10.3 Characteristics of RRT Patients Diganosed with Colorectal Cancer 2004 - 2015</b>	
<b>Factor</b>	<b>Value</b>
Age at diagnosis (years), median (IQR)	68.5 (60, 75)
Male gender	276 (65.4%)
<b>Ethnicity</b>	
Caucasian	350 (82.9%)
Aboriginal/Torres Strait Islander	15 (3.6%)
Asian	27 (6.4%)
Māori	18 (4.3%)
Pacific	9 (2.1%)
Other	3 (0.7%)
<b>Primary renal disease</b>	
GN	148 (35.1%)
Analgesic	12 (2.8%)
Polycystic	37 (8.8%)
Reflux	23 (5.5%)
Hypertension	48 (11.4%)
Diabetes	106 (25.1%)
Other	26 (6.2%)
Uncertain	22 (5.2%)
RRT duration (years), median (IQR)	4.8 (1.8, 11.5)
<b>Smoking status at RRT entry</b>	
Never	174 (44.3%)
Former	183 (46.6%)
Current	36 (9.2%)
Previous	2 (0.5%)
<b>Modality at diagnosis</b>	
Dialysis	272 (64.5%)
Transplant	150 (35.5%)

The survival of patients diagnosed with Colorectal Cancer while receiving RRT is shown in figure 10.7. The cause of death for these patients is shown in table 10.4. Over half of patients died from cancer, either directly or due to withdrawal of renal replacement therapy as a result of cancer.

**Figure 10.7**



**Table 10.4 Cause of Death in Patients Diagnosed with Colorectal Cancer 2004 - 2015**

Cause of death	n (%)
Cancer	116 (39%)
Withdrawal - cancer	60 (20%)
Withdrawal - other	28 (9%)
Cardiovascular	39 (13%)
Infection	18 (6%)
Other	35 (12%)
<b>Total</b>	<b>296 (100%)</b>

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