

The Twentieth Report

**AUSTRALIA AND NEW ZEALAND  
DIALYSIS AND TRANSPLANT REGISTRY**

1997

Edited - Dr. A.P.S. Disney

Transplantation - Dr. G.R. Russ

Cancer Report - Professor A.G.R. Sheil

Paediatric Report - Associate Professor Rowan Walker

ANZDATA Registry Gratefully Acknowledges  
SPONSORSHIP  
For the Publication and Distribution of this Report

From

Baxter Healthcare Pty Ltd  
Cobe Laboratories Pty Ltd  
Merck Sharp and Dohme  
Novartis  
Roche Products Pty Ltd  
Terumo Corporation

## **Funding**

ANZDATA Registry is funded by

Australian Health Ministers' Advisory Council  
New Zealand Ministry of Health  
The Australian Kidney Foundation

## **Sponsorship**

For publication and distribution of this Report

Baxter Healthcare Pty Ltd  
Cobe Laboratories Pty Ltd  
Merck Sharp & Dohme  
Novartis  
Roche Products Pty Ltd  
Terumo Corporation

## **Coordinating Centre**

ANZDATA Registry, The Queen Elizabeth Hospital  
28 Woodville Road, Woodville South,  
Adelaide, South Australia, 5011

Phone (61-8) 8222.6704  
Fax (61-8) 8445.9699  
Email [anzdata@ozemail.com.au](mailto:anzdata@ozemail.com.au)  
Web <http://www.anzdata.org.au>

Dr. T.H. Mathew	Chairman
Dr. A.P.S. Disney	Editor and Executive Officer
Dr. G.R. Russ	Editor/Project Manager Transplantation
Mrs L.R. Excell	Project Manager
Mr B. Livingston	Computer Programmer
Mrs E.K. Steinmetz	Administrative Officer

Printed in Adelaide, South Australia, 1998

© Copyright 1997 by the ® ANZDATA Registry

AKF ACN 008 464 426

ISSN 1329-2870

### **Acknowledgments**

ANZDATA Registry offers its most grateful appreciation to everyone who helped make this 20<sup>th</sup> Annual Report possible, especially the professionals and the staff of all the Renal Units and Tissue Typing Laboratories, upon whose reporting of data this enterprise ultimately depends.

### **Statistical Methods**

Actuarial and Kaplan-Meier survivals have been produced using the procedure contained in

SPSS ® for Windows™ Release 6.1  
SPSS Inc.

### **Suggested Citation**

The suggested citation for this report is as follows:

ANZDATA Registry Report 1997  
Australia and New Zealand Dialysis and Transplant Registry  
Adelaide, South Australia.  
Editors:       A.P.S. Disney  
                  G.R. Russ  
                  R. Walker  
                  A.G.R. Sheil

Publications based upon ANZDATA Registry information reported here or supplied upon request, must include the citation as noted above and the following notice:

The data reported here have been supplied by the Australia and New Zealand Dialysis and Transplant Registry. The interpretation and reporting of these data are the responsibility of the Editors and in no way should be seen as an official policy or interpretation of the Australia and New Zealand Dialysis and Transplant Registry.

# LIST OF PARTICIPATING HOSPITALS

## QUEENSLAND

Allamanda Private Hospital  
Cairns Hospital  
Goldcoast Hospital  
Greenslopes Private Hospital  
Nambour Hospital  
Princess Alexandra Hospital  
Rockhampton Hospital  
Royal Brisbane Hospital  
Toowoomba Hospital  
Townsville Hospital  
Wesley Hospital

## NEW SOUTH WALES / AUSTRALIAN CAPITAL TERRITORY (ACT)

Gosford Hospital  
John Hunter Hospital  
Lismore Hospital  
Mater Misericordiae Hospital  
New Children's Hospital  
Prince Henry Hospital  
Royal North Shore Hospital  
St. George Hospital  
St. Vincent's Hospital  
South West Sydney Renal Service  
*Bankstown Hospital*  
*Liverpool Hospital*  
Statewide Renal Services  
*Concord Hospital*  
*Royal Prince Alfred Hospital*  
Sydney Adventist Hospital  
Sydney Children's Hospital (*Prince of Wales*)  
Tamworth Hospital  
The Canberra Hospital (ACT)  
Westmead Hospital  
Wollongong Hospital

## VICTORIA

Alfred Hospital  
Austin and Repatriation Medical Centre  
Geelong Hospital  
Monash Medical Centre – Adult  
Monash Medical Centre – Paediatric  
Royal Children's Hospital  
Royal Melbourne Hospital  
St. Vincent's Hospital  
Western General Hospital

## TASMANIA

Launceston Hospital  
Royal Hobart Hospital

## SOUTH AUSTRALIA

Flinders Medical Centre  
The Queen Elizabeth Hospital  
Royal Adelaide Hospital  
Women's and Children's Hospital

## NORTHERN TERRITORY

Royal Darwin Hospital  
Alice Springs Hospital

## WESTERN AUSTRALIA

Fremantle Hospital  
Perth Medical Centre  
Princess Margaret Hospital for Children  
Royal Perth Hospital

## NEW ZEALAND

Auckland Hospital  
Christchurch Hospital  
Dunedin Hospital  
Middlemore Hospital  
Palmerston North Hospital  
Waikato Hospital  
Wellington Hospital  
Whangarei Area Hospital

# SATELLITE UNITS

## QUEENSLAND

Ayr Hospital  
Home Hill Satellite – Townsville Hospital  
Keperra – Royal Brisbane Hospital  
Logan Satellite – Princess Alexandra Hospital  
Mackay Base Hospital – Townsville Hospital  
Maryborough Hospital  
Sandgate Satellite – Royal Brisbane Hospital  
Vincent Satellite – Townsville Hospital

## NEW SOUTH WALES (ACT)

Ballina Satellite – Lismore Hospital  
Bankstown Hospital – Sth.W. Sydney Renal Service  
Bathurst Hospital  
Bourke Hospital  
Brewarrina Hospital  
Canberra Community Dialysis Centre (ACT)  
Catherine Cottage – St George Hospital  
Coffs Harbour Base Hospital  
Coonamble Hospital  
Dame Eadith Walker - Statewide Renal Services  
Dubbo Base Hospital  
Eora Cottage – Prince Henry Hospital  
Gosford Hospital  
Grafton Hospital  
Kempsey Hospital  
Lanceley Cottage – Royal North Shore Hospital  
Liverpool Hospital – Sth.West Sydney Renal Service  
Narramine Hospital  
Norfolk Island  
Orange Base Hospital – Westmead Hospital  
Shellharbour – Wollongong Hospital  
Singleton Satellite – John Hunter Hospital  
Sydney Adventist Hospital  
Sydney Dialysis Centre  
Tamworth Hospital  
Wagga Base Hospital  
Wansey Satellite – John Hunter Hospital  
Westmead Hospital

## VICTORIA

Angliss Hospital  
Apollo Bay Hospital  
Ararat Hospital  
Bairnsdale Hospital  
Ballarat Hospital  
Bendigo Hospital  
Berwick Hospital  
Birchip Hospital  
Brunswick Satellite  
Burwood Satellite  
Casterton Hospital  
Cohuna Hospital  
Diamond Valley Hospital  
Echuca Hospital  
Epworth Hospital (Royal Melbourne Hospital)  
Essendon Satellite  
Frankston Satellite  
Geelong Hospital  
Hamilton Hospital

## VICTORIA CONT...

Hastings Hospital  
Heidelberg – Repatriation Dialysis Unit  
Kilmore and District Hospital  
La Trobe Regional Satellite  
Maryborough Hospital  
Mildura Hospital  
Mitcham Satellite  
Moorabbin Satellite  
Myrtleford Hospital  
Nauru (overseas) – Alfred Hospital  
Nauru (overseas) – Austin & Repatriation  
Nauru (overseas) – Monash Medical Centre Adult  
Nauru (overseas) – Royal Melbourne Hospital  
North East Kidney Service  
Orbost Hospital  
Peter James Centre  
Portland Hospital  
Sale Hospital  
Seymour Hospital  
Shepparton Hospital  
Shepparton Institute for the Blind  
Swan Hill Hospital  
Terang Hospital  
Wangaratta Hospital  
Warnambool Hospital  
Western General Hospital  
Western Gippsland Hospital  
Wodonga Hospital  
Yarawonga District Hospital  
Yarrum Hospital

## TASMANIA

Royal Hobart Hospital

## SOUTH AUSTRALIA

College Grove Private Hospital  
Hartley Private Hospital  
North Adelaide Satellite Centre  
Port Augusta Hospital  
Wayville Satellite Centre

## NORTHERN TERRITORY

Community Health Centre – Alice Springs Hospital  
Nightcliff Community Centre – Darwin Hospital

## WESTERN AUSTRALIA

Leonora Hospital  
Kalgoorlie Hospital  
Roebourne District Hospital  
Royal Perth Rehabilitation Hospital  
– Royal Perth Hospital

## NEW ZEALAND

Dargaville Hospital  
Gisborne Hospital  
Hastings Hospital  
Kaeo Hospital  
Kaitaia Hospital  
Kawa Kawa Hospital  
Kaikohe Hospital  
Middlemore Hospital  
Nelson Hospital



## INTRODUCTION

This Report celebrates the 20th birthday of ANZDATA Registry which had its birth in Adelaide in 1977 when the previously separate Dialysis and Transplant Registries were combined. Who would have believed that the same team who created the joint registry would still be together and writing this 20<sup>th</sup> Report!

This year, I am pleased to report that the Registry has successfully moved its offices to what used to be the doctor's accommodation block. The area has been renovated and reconfigured to a much more pleasant and open environment for the Registry Staff. All visitors to Adelaide are invited to drop in for a cup of tea or coffee.

This past year has also seen the creation of a page on the World Wide Web (<http://www.anzdata.org.au>) which will be used for the provision of interim updates and other Registry related publications occurring from time to time.

Readers will also notice the improved presentation of this Report which is a credit to the in-house staff who have put considerable effort into acquiring publishing skills.

This year Dr Graeme Russ has continued to be responsible for the Transplant Section, Professor Ross Sheil has provided a Cancer Report and Professor Rowan Walker continues his contribution in Paediatrics.

Funding levels continue to be maintained through the Australian Health Ministers' Advisory Council, The Australian Kidney Foundation and the New Zealand Ministry of Health. Small but important contributions are also being made by Industry.

The Registry continues to participate in the provision of limited data collection for some of the immunosuppressive drug trials in transplantation. Access to the Registry from Nephrologists, Health Planners and other interested parties, for information from the database continues at record levels.

Running alongside ANZDATA Registry is the ANZOD Registry (Australia and New Zealand Organ Donor Registry) which is funded through similar mechanisms. The fact that for both Regis-

tries we continue to achieve 100% reporting from all units in all States and New Zealand, represents the extraordinary commitment and support which the Registry continues to enjoy.

The Registry Committee (a Subcommittee of The Dialysis and Transplant Committee of the Australia and New Zealand Society of Nephrology and the Australian Kidney Foundation) has the overall responsibility for the Registry. The 1997 Committee consists of:

Dr R Allen  
Dr A Disney  
Dr C Evans  
Mrs L Excell  
Dr M Falk  
Dr S. Fleming  
Dr I Hewitt  
Dr P Kerr  
Dr K Lynn (NZ Representative)  
Dr T Mathew  
Dr B Murphy  
Dr D Nicol  
Dr M Robertson  
Dr G Russ  
Prof. A Sheil

The Registry Committee is due to meet in early 1998. If you have any problems with any aspect of the Registry please let the Executive Staff in Adelaide know, or contact a Registry Committee Member.

The staff of the Registry continue unchanged. Lee Excell, whose prime responsibility is maintaining the database and analysis, is accompanied by Brian Livingston, computer programmer and analyst, and Lis Steinmetz who attends to administration and secretarial support.

The Report is posted to a large mailing list in Australia, New Zealand and overseas. Should you know of anyone who would like to join the mailing list please let us know. Hard bound copies must be ordered in August each year.

Timothy H Mathew  
CHAIRMAN

## TABLE OF CONTENTS

	<b>AUST.</b>	<b>PAGE</b> <b>N.Z.</b>
<b>SUMMARY 1996</b> . . . . .	1	5
<b>NEW PATIENTS</b>		
Patients Commencing Treatment 1996 . . . . .	20	20
Australian States . . . . .	21	-
Median, Mean and Age Range of New Patients . . . . .	21	21
Population Related – Age / Gender . . . . .	22-26	22-26
<b>PRIMARY RENAL DISEASE</b> . . . . .	27	27
Glomerulonephritis . . . . .	28	28
Miscellaneous Causes . . . . .	28	28
Analgesic Nephropathy . . . . .	30	-
<b>LIKELIHOOD OF TRANSPLANTATION</b> . . . . .	31-Mar-97 32	32
Related to Previous Transplantation . . . . .	33	35
Related to Site and Method of Dialysis . . . . .	33	35
Patients Awaiting Transplantation . . . . .	36	36
<b>QUALITY OF LIFE ASSESSMENT</b>		
Dialysis and Transplant Dependent Patients . . . . .	31-Mar-97 38	38
Related to Age and Method of Dialysis . . . . .	40	41
Impaired Quality of Life . . . . .	42	42
<b>DEATHS</b>		
Introduction . . . . .	43	43
Dialysis Dependent . . . . .	43	44
Calculated as Deaths per 100 Patient Years . . . . .	45-50	53-57
Cause of Death . . . . .	52	59
Death of Young Adults, 15-24, 25-34 years of age . . . . .	43	-
Transplant Dependent . . . . .	44	44
Calculated as Deaths per 100 Patient Years . . . . .	51	58
Cause of Death . . . . .	52	59
Malignancy – Dialysis and Transplant Dependent . . . . .	60	60
Withdrawal from Dialysis Treatment . . . . .	62	62
<b>DIALYSIS</b>		
Method and Location of Dialysis . . . . .	64	64
Continuous Ambulatory Peritoneal Dialysis . . . . .	69	69
New Patients, Transfers, Transplants, Deaths . . . . .	70	74
Proportion (%) CAPD of all Dialysis Patients . . . . .	71	71
Continuous Period of CAPD . . . . .	71	71
Stock and Flow – Age Related . . . . .	72	75
Treatment Connection Systems . . . . .	77	77
CAPD Litres per Week . . . . .	77	77
Peritonitis . . . . .	78	78
<b>HAEMODIALYSIS</b> . . . . .	80	80
New Patients, Transfers, Transplants, Deaths . . . . .	81	84
Proportion (%) Home Haemodialysis of all Dialysis Patients . . . . .	81	81
Stock and Flow – Age Related . . . . .	82	85
Blood Flow Rates . . . . .	87	87
Frequency and Hours of Dialysis . . . . .	89	89
Membrane Type and Surface Area . . . . .	91	91
<b>CO-MORBID CONDITIONS AT ENTRY TO DIALYSIS</b> . . . . .	93	-



## TABLE OF CONTENTS

	AUST.	PAGE N.Z.
<b>TRANSPLANTATION</b>		
Renal Transplants Performed in 1996 . . . . .	94	95
Age of Recipients . . . . .	94	95
Race of Transplant Recipients . . . . .	94	95
State Transplantation Activity . . . . .	94	95
Transplant Survival – Primary Cadaveric Grafts . . . . .	94	95
Transplant Survival – Subsequent Cadaveric Grafts . . . . .	95	-
Summary of Renal Transplantation . . . . .	95	95
Transplant Operations 1996 . . . . .	97	97
Transplantation Rate – Age Group 15-59 . . . . . 1984-96	98	98
Australian States (Per Million Population) . . . . . 1988-96	99	-
Rate of Transplantation (Per Million Population) . . . . . 1996	99	99
New Transplanted Patients – Race and Age . . . . . 1996	100	100
Primary Cadaver Patient and Graft Survival . . . . . 1989-95	101	102
Second / Subsequent Cadaver Patient and Graft Survival . . . . . 1982-96	103	-
<b>Living Donor Transplants</b> . . . . .	104	104
Proportion of Operations . . . . .	105	105
Course of Living Donor Kidney . . . . . 1988-96	106	106
Outcome of Living Donor Transplants . . . . .	107	107
Graft Survival		
Primary Living Donor Grafts . . . . .	107	107
Primary Zero HLA Mismatched Sibling Donors . . . . .	107	107
Primary $\geq 1$ HLA Mismatched Sibling Donors . . . . .	108	108
Graft Survival of Primary Parent or Offspring . . . . .	108	108
Living Unrelated Donor . . . . .	108	108
<b>Functioning Transplants at 31-Dec-96</b> . . . . .	109	109
Age of all Functioning Transplants . . . . .	111	111
Related to Race and Age Group . . . . .	113	113
<b>Factors Affecting Graft Outcome</b>		
Cyclosporin A Sparing Agents . . . . .	114	-
Late Graft Survival and Cyclosporin A Dosage . . . . .	118	-
Prednisolone Usage and Late Survival . . . . .	119	-
<b>Organ Donor Procurement</b> . . . . . 1993-96	121	121
Donor Profile		
Age and Gender Distribution . . . . .	121	121
Cause of Donor Death . . . . .	121	121
Non Heart Beating Donors . . . . .	121	121
Medical Conditions of Donors		
Diabetes . . . . .	121	121
Hypertension . . . . .	121	121
Smoking . . . . .	121	121
Alcohol . . . . .	121	121
Multiple Organ Donation . . . . .	122	122
Cadaveric Kidney Donors . . . . .	122	122
Kidney Perfusion Methods . . . . .	122	122
Donor Kidney Function – Creatinine and Urea Levels . . . . .	122	122
Number of Donors . . . . .	122	122
Donors per Thousand Deaths . . . . . 1989-96	123	123

## TABLE OF CONTENTS

	PAGE	
	AUST.	N.Z.
<b>TRANSPLANTATION</b> ORGAN DONOR PROCUREMENT CONT.....		
Age of Male and Female Donors . . . . .	1993-96    123	123
Gender of Donors . . . . .	1993-96    123	123
Cause of Donor Death . . . . .	126	126
Cause of Death Related to Age Group . . . . .	127	127
Heart Beating Donors . . . . .	1993-96    127	127
Trend to Multiple Organ Retrieval . . . . .	1993-96    127	127
Age of Kidney Donors . . . . .	1993-96    127	127
Outcome of Requests for Kidney Donation . . . . .	128	128
Reason Kidneys Unusable . . . . .	1993-96    128	-
Donor Age for Unusable Kidneys . . . . .	1993-96    128	128
Perfusion of Kidneys . . . . .	129	129
Terminal Creatinine and Urea Levels . . . . .	129	129
<b>PAEDIATRIC REPORT</b>		
Introduction . . . . .	130	130
Incidence of End Stage Renal Failure . . . . .	130	130
Mode of First Treatment in Age Groups . . . . .	131	132
Mode of Current Treatment . . . . .	31-Mar-97    132	132
Renal Transplantation		
Proportion Receiving Live Donor and Cadaveric Transplants . . . . .	133+134	133
Outcome . . . . .	133	133
Median Graft Survival by Age Groups / Year of Transplant . . . . .	135	135
Growth . . . . .	136	136
Rehabilitation . . . . .	31-Mar-97    137	137
Concluding Remarks . . . . .	137	137
<b>CANCER REPORT</b>		
Non Hodgkin's Lymphoma . . . . .	138	138
Breast Cancer . . . . .	139	139
Cancer Risk . . . . .	139	139
Times of Cancer Diagnosis . . . . .	141	141
Cancer in Patients Treated with Cyclosporin A . . . . .	142	142
Percentage Probability of Cancer Development . . . . .	143	143
Sites of Cancer Other Than Skin . . . . .	144	144
Clinical Features of all Cancers Other Than Skin		
Diagnosed Following Living Related Renal Transplantation . . . . .	145	145
Diagnosed Following Cadaver Donor Transplantation . . . . .	146	146
References . . . . .	146	146
<b>HEPATITIS C ANTIBODY . . . . .</b>	147	147

## APPENDIX I

### AUSTRALIA AND NEW ZEALAND

#### TABLE OF CONTENTS

	PINK	PAGE	
<b>RACIAL ORIGIN OF NEW PATIENTS</b> . . . . .	1996	5	
<b>RACIAL ORIGIN OF PATIENTS RECORDED</b> . . . . .	1963 to 31-Mar-97	5	
<b>STOCK AND FLOW</b> – National and State . . . . .	1983-1996	6	
<b>AGE GROUP POPULATION</b> – Related to			
Australia . . . . .		8 + (20-21)	
New Zealand . . . . .		9 + (22-23)	
Australian States			
Queensland . . . . .		11+(24-25)	
New South Wales/ACT . . . . .		12+(26-27)	
Victoria . . . . .		13+(28-29)	
Tasmania . . . . .		14+(30-31)	
South Australia . . . . .		15+(32-33)	
Northern Territory . . . . .		16+(34-35)	
Western Australia . . . . .		17+(36-37)	
<b>FUNCTIONING GRAFTS</b> – Number and Duration			
Queensland . . . . .		18	
New South Wales/ACT . . . . .		18	
Victoria . . . . .		18	
Tasmania . . . . .		19	
South Australia . . . . .		19	
Western Australia . . . . .		19	
<b>ESTIMATED RESIDENT POPULATION BY AGE GROUPS</b>			
Australia . . . . .		38	
New Zealand . . . . .		39	
<b>INTERIM SUMMARY</b>			
Australia	1-Apr-96 to 30-Sep-96	1-Oct-96 to 31-Mar-97 . . . . .	40-41
New Zealand	1-Apr-96 to 30-Sep-96	1-Oct-96 to 31-Mar-97 . . . . .	42

## APPENDIX II

### AUSTRALIA AND EACH STATE

#### TABLE OF CONTENTS

YELLOW PAGE

#### NEW PATIENTS

Number of New Patients in Each Age Group		
Australia . . . . .	1963-1996	4
Australian States . . . . .	1992-1996	5
Number of New Patients by Racial Origin		
Australian States, Australia and New Zealand . . . . .	1989-1996	6
Country of Birth . . . . .	1-Apr-93 to 31-Mar-97	61
Recorded in the Registry to 31-Mar-97 – Starting Treatment in Australia . . . . .		61

#### PRIMARY RENAL DISEASE

Primary Renal Disease of New Patients		
Australia . . . . .	1992-1996	8
Australian States . . . . .	1995-1996	9

#### DIALYSIS PATIENTS

Age and Treatment of Dialysis Patients . . . . .	1992-1996	11
Age and Treatment of Dialysis Patients by Gender . . . . .	1994-1996	12
Age and Treatment of Dialysis Patients – Australian States . . . . .	1995-1996	13
Longest Dialysis Survivors Alive (never transplanted)		
Australia and New Zealand		
Uninterrupted Dialysis for >10 years . . . . .	31-Mar-97	58
Haemodialysis Analysis Related to Age Groups		
Survey Ending . . . . .	30-Sep-96	60
Survey Ending . . . . .	31-Mar-97	60

#### TRANSPLANT PATIENTS

Functioning Transplant Patients . . . . .	1993-1996	15
Functioning Transplant Patients – Australian States . . . . .	1995-1996	16
Gender, Race and Age of Functioning Transplant Patients	31-Dec-96	
Caring Country – Australia . . . . .		18
Caring Country – New Zealand . . . . .		18
Transplanted in Australia or New Zealand		
By Caring Australian States . . . . .		19
Functioning Australian Transplanted Patients . . . . .	31-Dec-96	
Race, Primary Renal Disease and Age . . . . .		21
Recipient Age and Donor Source for Transplant Operations		
Australia . . . . .	1993-1996	22
Australian States . . . . .	1996	23
Race, Primary Renal Disease and Age of		
New Transplanted Patients . . . . .	1-Jan-96 to 31-Dec-96	24
Age and Donor Source of Transplanted Patients . . . . .	1963-1996	
Transplanting Hospital . . . . .		25
Currently Functioning Transplant - Australia and New Zealand	31-Mar-97	
Transplant Functioning for >20 years . . . . .		52
Third Graft . . . . .		56
Fourth Graft . . . . .		57
Fifth Graft – Australia only . . . . .		57

**CAUSE OF GRAFT LOSS**

Australia and New Zealand . . . . .	1987-1996	42
Year of Graft Loss due to Death or Failure		
Australia and New Zealand . . . . .	1987-1996	43
Age Related . . . . .	1987-1996	44

**DEATH**

Death and Mode of Treatment		
Australia . . . . .	1992-1996	26
Australian States . . . . .	1996	27
Cause of Dialysis Deaths . . . . .	1996	28
Cause of Transplant Deaths . . . . .	1996	29
Site and Type of Infection Causing Death		
Dialysis Dependent . . . . .	1996	30
Transplant Dependent . . . . .	1996	31
Dialysis and Transplant Dependent – Sites and Types of Infection		31
Treatment Withdrawal		
Treatment Mode, Disease, Gender and Age . . . . .	1993-1996	32

**LIKELIHOOD OF TRANSPLANT**

Related to Age and Form of Treatment . . . . .	31-Mar-97	33
--	-----------	----

**QUALITY OF LIFE**

Related to Age and Form of Treatment . . . . .	31-Mar-97	
Dialysis Dependent . . . . .		34
Transplant Dependent . . . . .		35
Diabetic Primary Renal Disease . . . . .		36
Non Diabetic Primary Renal Disease . . . . .		37
Caucasoid . . . . .		38
Aboriginal . . . . .		39
Asian . . . . .		40
Other Race . . . . .		41

**Co-MORBID CONDITIONS**

Race and Age of New Diabetic / Non Diabetic Patients . . . . .	1996	45
At Entry to Programme . . . . .	1-Jan-94 to 31-Dec-96	46
Caucasoid Patients . . . . .	1-Jan-93 to 31-Dec-96	47
Aboriginal Patients . . . . .	1-Jan-93 to 31-Dec-96	48
Other Patients . . . . .	1-Jan-93 to 31-Dec-96	49
Non Diabetic Primary Renal Disease Patients . . . . .	1-Jan-94 to 31-Dec-96	50
Diabetic Primary Renal Disease Patients . . . . .	1-Jan-94 to 31-Dec-96	51

## APPENDIX III

### NEW ZEALAND

#### TABLE OF CONTENTS

GREEN PAGE

##### NEW PATIENTS

Number of New Patients in Each Age Group . . . . .	1965-1996	4
Primary Renal Disease of New Patients . . . . .	1992-1996	5
Number of New Patients by Racial Origin 1989-1996 Australian States, Australia and New Zealand (Appendix II, page 6)		
Country of Birth . . . . .	1-Apr-93 to 31-Mar-97	37
Country of Birth Recorded in the Registry to . . . . .	31-Mar-97	37

##### DIALYSIS PATIENTS

Age and Treatment of Dialysis Patients . . . . .	1992-1996	6
Age and Treatment of Dialysis Patients by Gender . . . . .	1994-1996	7
Longest Dialysis Survivors Alive (never transplanted)		
Uninterrupted Dialysis for >6 years . . . . .	31-Mar-97	35
Haemodialysis analysis related to age groups		
Haemodialysis during survey period ending . . . . .	30-Sep-96	36
Haemodialysis during survey period ending . . . . .	31-Mar-97	36

##### TRANSPLANT PATIENTS

Functioning Transplant Patients . . . . .	1993-1996	8
Gender, Race and Age . . . . .	31-Dec-96	
Caring Country – New Zealand . . . . .		9
Caring Country – Australia . . . . .		9
Race, Primary Renal Disease and Age . . . . .	31-Dec-96	10
Recipient Age and Donor Source . . . . .	1993-1996	11
Race, Primary Renal Disease and Age of New Transplant Patients	1996	12
Age and Donor Source of Transplanted Patients . . . . .	1963-1996	13
Currently Functioning Transplant		
Transplant Functioning for >17 years . . . . .	31-Mar-97	34

**CAUSE OF GRAFT LOSS**

New Zealand and Australia . . . . .	1987-1996	26
Year of Graft Loss due to Death or Failure		
New Zealand and Australia . . . . .	1987-1996	27
Age Related . . . . .	1987-1996	28

**DEATH**

Death and Mode of Treatment . . . . .	1992-1996	14
Cause of Dialysis and Transplant Deaths . . . . .	1996	15
Site and Type of Infection Causing Death		
Dialysis and Transplant Dependent . . . . .	1996	16
Treatment Withdrawal		
Treatment Mode, Disease, Gender and Age . . . . .	1993-1996	17

**LIKELIHOOD OF TRANSPLANT**

Related to Age and Form of Treatment . . . . .	31-Mar-97	18
--	-----------	----

**QUALITY OF LIFE**

Related to Age and Form of Treatment . . . . .	31-Mar-97	19
Diabetic Primary Renal Disease . . . . .		20
Non Diabetic Primary Renal Disease . . . . .		21
Caucasoid . . . . .		22
Maori . . . . .		23
Pacific Islander . . . . .		24
Asian . . . . .		25
Other Race . . . . .		25

**Co-MORBID CONDITIONS**

Race and Age of New Diabetic / Non Diabetic Patients . . . . .	1996	29
At Entry to Program . . . . .	1-Jan-94 to 31-Dec-96	30
Caucasoid Patients . . . . .	1-Jan-93 to 31-Dec-96	31
Maori Patients . . . . .	1-Jan-93 to 31-Dec-96	32
Pacific Islander . . . . .	1-Jan-93 to 31-Dec-96	33