



# 2<sup>nd</sup>

## REPORT OF NATIONAL TRANSPLANT REGISTRY 2005



**Editors:**  
**Hooi LS**  
**Lela Yasmin Mansor**

With contributions by:

Alan Teh K H, Chan L L, Shamala R, Choong YY, Michael Law SH,  
Mohamed Ezani, David Chew SP, Ganesalingam K, Lim CB, Tan SS,  
Goh BL, Hamdan Leman, Suzina Sheikh



SECOND  
REPORT OF THE  
NATIONAL TRANSPLANT REGISTRY  
2005

Editors  
Hooi L.S.  
Lela Yasmin Mansor

*With contributions by:*

Alan Teh K H, Chan L L, Shamala R, Choong YY, Michael Law SH, Mohamed Ezani, David  
Chew SP, Ganesalingam K, Lim CB, Tan SS, Goh BL, Hamdan Leman, Suzina Sheikh



December 2006  
©National Transplant Registry, Malaysia

ISSN 1823-5719

**Published by:**

National Transplant Registry  
1<sup>st</sup> Floor MMA House  
124, Jalan Pahang  
53000 Kuala Lumpur  
Malaysia

Tel : (603) 4045 5948

Fax : (603) 4044 0613

e-mail : [ntr@crc.gov.my](mailto:ntr@crc.gov.my)

Website: <http://www.mst.org.my>

This report is copyrighted. However it may be freely reproduced without the permission of the National Transplant Registry. Acknowledgement would be appreciated. Suggested citation is: Hooi L.S., Lela Yasmin Mansor (Eds). 2nd Report of the National Transplant Registry Malaysia 2005. Kuala Lumpur 2006.

## FOREWORD

The first report of the National Transplant Registry was launched on 20 December 2005. We are pleased that the second report of the National Transplant Registry has now been published.

We would like to thank all the 160 source data producers without whom this report would not be possible. We are amazed by the level of cooperation provided by many private hospitals and institutions who have voluntarily reported their transplant data. Please keep up the good work.

Altogether there are seven chapters to cater to the 7 types of transplants for which data is being collected: Blood and Marrow Transplant, Cornea Transplant, Heart /Lung Transplant, Liver Transplant, Renal Transplant, Heart Valve Transplant, Bone and Tissue Transplant. Each organ or tissue system has an expert panel to determine the type of data to be collected, interpret the analyzed data and come out with the report. We wish to thank all individuals and representatives from the various professional societies who sit in these expert panels for their continued and invaluable support.

In this second report an eight chapter has been added to capture data on cadaveric organ and tissue donation. This has been possible with the assistance of the National Transplant Resource Centre, Hospital Kuala Lumpur.

Lastly we wish to record once again our sincere appreciation to the Ministry of Health, Clinical Research Centre, Hospital Kuala Lumpur, our supporters from the pharmaceutical industry and other well wishers for their continued support.

Thank you.

Tan Sri Dato' Dr Yahya Awang  
Chairperson  
NTR

Dato' Dr Zaki Morad  
Co-Chairperson  
NTR

Datin Dr Lela Yasmin  
Mansor  
Co-chairperson  
NTR

## ACKNOWLEDGEMENTS

The National Transplant Registry would like to record its appreciation to everyone who have helped make this report possible.

We would especially like to thank the following:

- Our source data providers who are the transplant surgeons, physicians and staff of all organ and tissue transplant centres and transplant follow up centres from the government, university and private sectors, without whose commitment, hard work and timely data submission there will be no report
- National Renal Registry for sharing the renal transplant data
- Clinical Research Centre, Hospital Kuala Lumpur
- Ministry of Health
- The members of the various expert panels for their expertise and for devoting their valuable time and effort in preparing and writing the various chapters
- And not forgetting our supporters from the industry and other well-wishers:

Roche (M) Sdn Bhd  
Norvartis Corporation (M) Sdn Bhd  
Janssen-Cilag Div., Johnson & Johnson Sdn. Bhd.  
GlaxoSmithKline Pharmaceutical Sdn. Bhd.

## **PARTICIPATING CENTRES**

### **Discipline: Blood and Marrow Transplant**

1. Division of Haematology, Department of Medicine, University of Malaya Medical Centre
2. Haematology Department, Hospital Kuala Lumpur
3. Haematology Department, Subang Jaya Medical Centre
4. Maybank BMT Centre, Hospital Universiti Kebangsaan Malaysia
5. Oncology-Haematology Department, Gleneagles Medical Centre, Penang
6. Oncology-Haematology Department, Lam Wah Ee Hospital
7. Paediatric BMT Unit, Department of Paediatrics, University of Malaya Medical Centre
8. Paediatric BMT Unit, Institute of Paediatrics, Hospital Kuala Lumpur
9. Paediatric BMT Unit, Subang Jaya Medical Centre

### **Discipline: Cornea Transplant**

1. Eye Clinic, Mahkota Medical Centre
2. Hope Eye Centre, Gleneagles Intan Medical Centre, Kuala Lumpur
3. Klinik Pakar Mata Centre For Sight
4. Ophthalmology Department, 94 Hospital Angkatan Tentera Kem Terendak
5. Ophthalmology Department, Hospital Universiti Kebangsaan Malaysia
6. Ophthalmology Department, Gleneagles Medical Centre, Penang
7. Ophthalmology Department, Hospital Alor Setar
8. Ophthalmology Department, Hospital Batu Pahat
9. Ophthalmology Department, Hospital Bukit Mertajam
10. Ophthalmology Department, Hospital Duchess of Kent, Sandakan
11. Ophthalmology Department, Hospital Ipoh
12. Ophthalmology Department, Hospital Kajang
13. Ophthalmology Department, Hospital Kangar
14. Ophthalmology Department, Hospital Kuala Lipis
15. Ophthalmology Department, Hospital Kuala Lumpur
16. Ophthalmology Department, Hospital Kuala Pilah
17. Ophthalmology Department, Hospital Kuala Terengganu
18. Ophthalmology Department, Hospital Melaka
19. Ophthalmology Department, Hospital Mentakab
20. Ophthalmology Department, Hospital Miri
21. Ophthalmology Department, Hospital Pakar Sultanah Fatimah
22. Ophthalmology Department, Hospital Pantai Indah
23. Ophthalmology Department, Hospital Pulau Pinang
24. Ophthalmology Department, Hospital Putrajaya
25. Ophthalmology Department, Hospital Queen Elizabeth, Kota Kinabalu
26. Ophthalmology Department, Hospital Raja Perempuan Zainab II, Kota Bharu
27. Ophthalmology Department, Hospital Selayang
28. Ophthalmology Department, Hospital Seremban
29. Ophthalmology Department, Hospital Sibul
30. Ophthalmology Department, Hospital Sultan Ismail
31. Ophthalmology Department, Hospital Sultanah Aminah
32. Ophthalmology Department, Hospital Sungai Petani
33. Ophthalmology Department, Hospital Taiping
34. Ophthalmology Department, Hospital Tawau

35. Ophthalmology Department, Hospital Teluk Intan
36. Ophthalmology Department, Hospital Tengku Ampuan Afzan
37. Ophthalmology Department, Hospital Tengku Ampuan Rahimah
38. Ophthalmology Department, Hospital Umum Sarawak
39. Ophthalmology Department, Hospital Universiti Sains Malaysia
40. Ophthalmology Department, Sri Kota Medical Centre
41. Ophthalmology Department, University of Malaya Medical Centre
42. Ophthalmology Unit, Department of Surgery, Universiti Putra Malaysia
43. Optimax Eye Specialist Centre
44. Puteri Specialist Hospital, Johor Bahru
45. Tan Eye Specialist Centre, Sunway Medical Centre
46. Tun Hussein Onn National Eye Hospital, Tun Hussein Onn National Eye Hospital

**Discipline: Heart and Lung Transplant**

1. Cardiothoracic Department, Institut Jantung Negara
2. Institut Perubatan Respiratori, Hospital Kuala Lumpur

**Discipline: Heart Valve Transplant**

1. Cardiovascular Tissue Bank, Department of Cardiothoracic Surgery, Institut Jantung Negara

**Discipline: Liver Transplant**

1. Department of Paediatrics, University of Malaya Medical Centre
2. Hepatobiliary Department, Hospital Selayang
3. Institute of Paediatrics, Hospital Kuala Lumpur
4. Subang Jaya Medical Centre

**Discipline: Renal Transplant**

1. 96 Hospital Angkatan Tentera Kem Lumut
2. C. S. Loo Kidney & Medical Specialist Centre, Perak Community Specialist Hospital
3. MAA-Medicare Kidney Charity, Cheras
4. National Kidney Foundation Dialysis Centre, Taiping
5. Nephrology Department, Hospital Alor Setar
6. Nephrology Department, Hospital Batu Pahat
7. Nephrology Department, Hospital Bintulu
8. Nephrology Department, Hospital Duchess of Kent
9. Nephrology Department, Hospital Dungun
10. Nephrology Department, Hospital Ipoh
11. Nephrology Department, Hospital Kangar
12. Nephrology Department, Hospital Kemaman
13. Nephrology Department, Hospital Kluang
14. Nephrology Department, Hospital Kuala Lumpur
15. Nephrology Department, Hospital Kuala Terengganu
16. Nephrology Department, Hospital Labuan

17. Nephrology Department, Hospital Melaka
18. Nephrology Department, Hospital Mentakab
19. Nephrology Department, Hospital Miri
20. Nephrology Department, Hospital Pakar Sultanah Fatimah
21. Nephrology Department, Hospital Pontian
22. Nephrology Department, Hospital Pulau Pinang
23. Nephrology Department, Hospital Queen Elizabeth
24. Nephrology Department, Hospital Raja Perempuan Zainab II
25. Nephrology Department, Hospital Segamat
26. Nephrology Department, Hospital Selayang
27. Nephrology Department, Hospital Serdang
28. Nephrology Department, Hospital Seremban
29. Nephrology Department, Hospital Sibul
30. Nephrology Department, Hospital Sultan Ismail Pandan
31. Nephrology Department, Hospital Sultanah Aminah
32. Nephrology Department, Hospital Taiping
33. Nephrology Department, Hospital Tanah Merah
34. Nephrology Department, Hospital Tawau
35. Nephrology Department, Hospital Teluk Intan
36. Nephrology Department, Hospital Temerloh
37. Nephrology Department, Hospital Tengku Ampuan Afzan
38. Nephrology Department, Hospital Tengku Ampuan Rahimah
39. Nephrology Department, Sarawak General Hospital
40. Nephrology Department, UKM Hospital
41. Nephrology Department, University Malaya Medical Centre
42. Nephrology Department, USM Hospital
43. Nephrology Unit, Ampang Puteri Specialist Hospital
44. Nephrology Unit, Assunta Hospital
45. Nephrology Unit, Mahkota Medical Centre
46. Nephrology Unit, Subang Jaya Medical Centre
47. Nephrology Unit, Sunway Medical Centre
48. Normah Medical Specialist Centre
49. Paediatric Renal Transplant Clinic, Hospital Kuala Lumpur
50. Paediatric Ward, Hospital Sultanah Aminah
51. Renal Care, Ipoh Specialist Hospital
52. Renal Dialysis Centre Sdn. Bhd.
53. Renal Transplant Clinic, Damai Medical & Heart Clinic
54. Renal Transplant Clinic, Hospital Lam Wah Ee
55. Renal Transplant Clinic, Pusat Pakar Tawakal
56. Renal Transplant Clinic, Sabah Medical Centre
57. Renal Transplant Clinic, Selangor Medical Centre
58. Renal Transplant Clinic, Sri Kota Medical Centre
59. Renal Transplant Unit, Hospital Pantai Mutiara
60. S.P. Menon Dialysis Centre, Klang
61. Simon Wong Medical & Kidney Clinic, Timberland Medical Centre
62. Smartcare Dialysis Centre, Cheras
63. Smartcare Dialysis Centre, Subang Jaya
64. Tan Medical Renal Clinic
65. The Rotary Haemodialysis Centre
66. Tung Shin Hospital
67. Yayasan Kebajikan SSL Hemodialisis



**Discipline: Bone / Tissue Transplant**

1. Department of Orthopaedic & Traumatology, Hospital Kangar
2. Department of Orthopaedic Surgery, Hospital Alor Setar
3. Department of Orthopaedic Surgery, Hospital Taiping
4. Department of Orthopaedic Surgery, University of Malaya Medical Centre
5. Department of Orthopaedics, Hospital Ipoh
6. Department of Orthopaedics, Hospital Kajang
7. Department of Orthopaedics, Hospital Kuala Terengganu
8. Department of Orthopaedics, Hospital Kuantan
9. Department of Orthopaedics, Hospital Pulau Pinang
10. Department of Orthopaedics, Hospital Raja Perempuan Zainab II
11. Department of Orthopaedics, Hospital Seberang Jaya
12. Department of Orthopaedics, Hospital Sultanah Aminah
13. Department of Orthopaedics, Hospital Tengku Ampuan Rahimah
14. Department of Orthopaedics, Hospital Universiti Sains Malaysia
15. Department of Orthopaedics, Sarawak General Hospital
16. Department of Orthopaedics, Sultanah Fatimah Specialist Hospital
17. Department of Orthopaedics, Traumatology and Rehabilitation, International Islamic University Malaysia
18. Department of Surgery, Hospital Kota Bharu
19. Hospital Fatimah, Ipoh
20. Institute of Orthopaedic & Traumatology, Hospital Kuala Lumpur
21. Island Hospital, Penang
22. Malaysian Institute For Nuclear Technology Research
23. National Tissue Bank, Universiti Sains Malaysia
24. Normah Medical Specialist Centre, Kuching
25. Ophthalmology Department, Hospital Kuala Lumpur
26. Ophthalmology Department, Hospital Teluk Intan
27. Ophthalmology Department, Hospital Tengku Ampuan Afzan
28. Ophthalmology Department, Hospital Tengku Ampuan Rahimah
29. Ophthalmology Department, Sri Kota Medical Centre
30. Timberland Medical Centre, Kuching
31. Wan Orthopaedic, Trauma & Sports Injury Centre, Seremban Specialist Hospital

## **ABOUT THE NATIONAL TRANSPLANT REGISTRY**

The National Transplant Registry (NTR) is a Ministry of Health (MOH) supported registry whose aim is to collect information about organ and tissue transplantations in Malaysia. The information allows us to estimate the magnitude of transplant activity in the country. Such information besides being useful to practitioners of transplantation is useful in assisting the MOH, non-governmental organisations, private providers and industry in program planning and evaluation of transplantation services.

The objectives of NTR are to:

1. Determine the frequency and distribution of all types of transplantation activity in Malaysia.
2. Determine the outcomes of transplantation.
3. Determine the factors influencing outcomes of transplantation.
4. Evaluate transplantation services in the country.
5. Stimulate and facilitate research on transplantation and its management.

The NTR receives data on organ / tissue transplantation from 3 main sources:

1. The individual doctors who provide transplantation services, who voluntarily report data to the NTR. Data collection will be from seven main types of transplantation services:
  - Blood and Marrow Transplant
  - Cornea Transplant
  - Heart and Lung Transplant
  - Liver Transplant
  - Renal Transplant
  - Heart Valve Transplant
  - Bone and Tissue Transplant
2. The National Vital Registration system (Jabatan Pendaftaran Negara). Their data is useful for determining or verifying mortality outcomes of transplant patients.
3. Information Documentation Unit of the MOH, which operates the Health Management Information system (HMIS).

## **SPONSORS OF THE NTR**

- Medical Development Division, MOH
- National Transplant Coordinating Committee
- Malaysian Society Of Transplantation
- Clinical Research Centre, Hospital Kuala Lumpur

## GOVERNANCE BOARD

The Governance Board is established by the sponsors of the NTR to govern the NTR. Current membership of the Governance Board are as follows:

<b>Name</b>	<b>Representation</b>
Tan Sri Dato' Dr. Yahya Awang <b>Chairperson</b>	Cardiothoracic Consultant, Damansara Specialist Hospital NTR Expert Panel Chairman of Heart / Lung Transplant
Dato' Dr. Zaki Morad Mohd Zaher <b>Co-chair</b>	Head, Department of Nephrology, Hospital Kuala Lumpur NTR Expert Panel Chairman of Renal Transplant
Datin Dr. Fadhilah Zowyah Lela Yasmin Mansor <b>Co-chair</b>	Chairperson, Registry Subcommittee National Transplant Coordinating Committee Ministry Of Health
Dato' Dr. Tan Kai Chah	Hepatobiliary / Liver Transplant Surgeon, Subang Jaya Medical Centre
Dr. Teng Seng Chong	Medical Development Division, Ministry of Health
Dr. Tan Chwee Choon	Malaysian Society of Transplantation
Dr. Lim Teck Onn	Clinical Research Centre (CRC), Hospital Kuala Lumpur
Dr. Jamaiyah Haniff	Clinical Research Centre (CRC), Hospital Kuala Lumpur
Mr. Rohan Malek	Malaysian Urological Association
Dr. Hooi Lai Seong	Malaysian Society of Nephrology
Mr. Hamdan Leman	Malaysian Society of Thoracic & Cardiovascular Surgeons
Dr. Aizai Azan Abdul Rahim	National Heart Association of Malaysia
Prof. Dr. Abdul Rani Samsudin	Malaysian National Tissue Bank
Dr. Wong Jun Shyan	Ophthalmological Society Of MMA
Tan Sri Datuk Dr. Mohd. Ismail Merican	Malaysian Liver Foundation
Dr. Hamidah Shaban	Malaysian Thoracic Society
Prof. Dr. Zulmi Wan	Malaysian Orthopaedic Association NTR Expert Panel Chairman of Bone and Tissue Transplant
Dr. Gill Satwant Singh	National Kidney Foundation of Malaysia
Dr. Chang Kian Meng	Malaysian Society of Haematology
Dr. Kelvin Lim Lye Hock	Malaysian Association of Oral & Maxillofacial Surgeons
Dr. R T Arasu	Malaysian Dental Association
Dr. Alan Teh Kee Hean	NTR Expert Panel Co-chair of Blood and Marrow Transplant (Adult)
Prof. Dr. Chan Lee Lee	NTR Expert Panel Co-chair of Blood and Marrow Transplant (Paediatric)
Dato' Dr. Zakaria Zahari	NTR Expert Panel Chairman of Liver Transplant
Dr. Shamala Retnasabapathy	NTR Expert Panel Chairman of Cornea Transplant
Dr. Goh Bak Leong	NTR Expert Panel Co-chair of Renal Transplant
Mr. Mohamed Ezani Hj Md. Taib	NTR Expert Panel Co-chair of Heart / Lung Transplant

## EXPERT PANEL

NTR has established seven groups of expert panel comprising members of the medical profession and allied health with expert knowledge in the various disciplines:

- Blood and Marrow Transplant
- Cornea Transplant
- Heart and Lung Transplant
- Liver Transplant
- Renal Transplant
- Heart Valve Transplant
- Bone and Tissue Transplant

The role of the expert panel is:

1. To undertake quality control of the clinical registry form and the data dictionary
2. To undertake quality control of the reported data
3. To undertake literature review in the relevant area
4. To interpret the results generated by NTR's statisticians
5. To write the section of the NTR report relevant to the panel expertise
6. To specify the data reporting procedure
7. To facilitate access to source documents for Transplant Registry Unit (TRU) staff to do data verification

List of Expert Panel members for each respective discipline:

### **Discipline: Blood and Marrow Transplant**

<b>Co-Chair (Adult)</b>	Dr. Alan Teh Kee Hean
<b>Co-Chair (Paeds)</b>	Prof. Dr. Chan Lee Lee
<b>Member</b>	Prof. Dr. Cheong Soon Keng
	Dr. Chang Kian Meng
	Dr. Gan Gin Gin @ Gan Shiaw Sze
	Dr. Hishamshah Mohd Ibrahim
	Dr. Jameela Sathar
	Prof. Dr. Lin Hai Peng
	Dr. Mahfuzah Mohamed
	Dr. Ng Soo Chin
	Dr. S Visalachy Purushothaman
	Dr. Vijaya Sangkar

### **Discipline: Cornea Transplant**

<b>Chairman</b>	Dr. Shamala Retnasabapathy
<b>Co-Chair</b>	Dr. Choong Yean Yaw
<b>Member</b>	Dato' Dr. Veera Ramani
	Dr. Jonathan Choon Siew Cheong
	Dr. Chuah Kay Leong
	Dr. Michael Law Sie Haur
	Dr. Mariam Ismail
	Assoc. Prof. Dr. S C Reddy

	Dr. Sahimi Sulaiman
	Dr. U. Thiageswari

**Discipline: Heart and Lung Transplant**

<b>Chairman</b>	Tan Sri Dato' Dr. Yahya Awang
<b>Co-Chair</b>	Mr. Mohamed Ezani Hj Md.Taib
<b>Member</b>	Datin Dr. Aziah Ahmad Mahayiddin
	Dr. Ashari Yunus
	Dr. Aizai Azan Abdul Rahim
	Dato' Dr. David Chew Soon Ping
	Dr. Hamidah Shaban

**Discipline: Liver Transplant**

<b>Chairman</b>	Dato' Dr. Zakaria Zahari
<b>Member</b>	Dr. Ganesalingam A/L Kanagasabai
	Dr. Goon Hong Kooi
	Dr. Lim Chooi Bee
	Assoc. Prof. Dr. Lee Way Seah
	Dr. Sushila Sivasubramaniam
	Dr. Tan Soek Siam
	Dr. S Thavaranjitham

**Discipline: Renal Transplant**

<b>Chairman</b>	Dato' Dr. Zaki Morad Mohd Zaher
<b>Co-Chair</b>	Dr. Goh Bak Leong
<b>Member</b>	Dr. Fan Kin Sing
	Dr. Lily Mushahar
	Mr. Rohan Malek
	Dr. S Prasad Menon
	Prof. Dr. Tan Si Yen

**Discipline: Heart Valve Transplant**

<b>Chairman</b>	Mr. Mohamed Ezani Hj Md.Taib
-----------------	------------------------------

**Discipline: Bone / Tissue Transplant**

<b>Chairman</b>	Prof. Dr. Zulmi Wan
<b>Member</b>	Prof. Dr. Abdul Rani Samsudin
	Dr. Badrul Shah Badaruddin
	Dato' Dr. Hasim Mohamad
	Dr. Norimah Yusof
	Dr. Robert Penafort

## **STAFF OF NATIONAL TRANSPLANT REGISTRY**

Clinical Registry Coordinator      Ms. Leong Wei Chee

## **SUPPORTING STAFF FROM THE CLINICAL RESEARCH CENTRE**

The Clinical Research Centre (CRC) of the Ministry of Health provides technical support for the National Transplant Registry. The clinical epidemiologists provide methodological and epidemiological input while the database is supported on CRC's IT infrastructure.

Clinical Epidemiologist	Dr. Jamaiyah Haniff
Clinical Epidemiologist	Dr. Anita Das
Information & Communication Technology (ICT) Manager	Ms. Celine Tsai Pao Chien
Network Administrator	Mr. Kevin Ng Hong Heng
Assistant Network Administrator	Mr. Adlan Ab. Rahman
Database Administrator	Ms. Lim Jie Ying
Programmer	Mr. Sebastian Thoo / Mr. John Chong
Desktop publisher	Ms. Azizah Alimat

## **BIostatistical CONSULTANTS**

Consultant Biostatistician	Dr. Sharon Chen Won Sun
Biostatistician	Mr. Tan Wei Hao
Biostatistician	Ms. Suziah binti Simat

## CONTENTS

Foreword	i
Acknowledgements	ii
Participating Centres	iii
About the National Transplant Registry	vii
Sponsors of the NTR	vii
Governance Board	viii
Expert Panel	ix
NTR staff	xi
Supporting staff of Clinical Research Centre	xi
Contents	xii
Introduction	1
Report Summary	3
Chapter 1: Blood and Marrow Transplantation	6
Chapter 2: Cornea Transplantation	40
Chapter 3: Heart and Lung Transplantation	66
Chapter 4: Liver Transplantation	77
Chapter 5: Renal Transplantation	92
Chapter 6: Heart Valve Transplantation	128
Chapter 7: Bone and Tissue Transplantation	139
Chapter 8: Cadaveric Organ and Tissue Donation	145
Appendix A: Data Management	156
Appendix B: Analysis Sets and Statistical Methods	159
Appendix C: Glossary	160
Appendix D: Directory of Participating Centres 2005	162

## INTRODUCTION

The national transplant registry (NTR) was planned and set up in November 2003. The parties involved in the setting up of the NTR are the Clinical Research Centre (CRC), Medical Development Division, Ministry of Health and the Malaysian Society of Transplantation. Due to policy changes, the running of the NTR has been transferred to the Malaysian Society of Transplantation since December 2005. The Transplant Registry Unit of the CRC continues to provide the expertise for statistical analysis and IT support. The NTR is currently staffed by a full time Clinical Research Coordinator Ms Leong Wei Chee. I wish to take this opportunity to record our sincere appreciation and thanks to Ms Woo Li Fong who has resigned as Clinical Registry Manager to work overseas. Ms Woo had played an important role in getting the cooperation and support of all our source data producers (SDPs). The SDPs are individual doctors or transplant units who voluntarily report data on their transplant activities.

Transplant registry databases are important as they can be used to describe and monitor trends in transplantation. They can play a critical role in assessing transplantation, help identify factors that influence outcome and help evaluate late transplant complications.

The government, scientific community, pharmaceutical industry and public can have access to the NTR data as the reports once published remains in the public domain and can be downloaded from the internet. The government and policy makers can use this data to address issues related to funding and reimbursement policy, legislative and regulatory policy, performance standards and quality control. The scientific community and the public can use this data for research, policy analysis and evaluation of organ allocation policies. Patients and families can use the data to evaluate their transplant options. Therefore the valuable information provided justifies the investment put into transplant registries.

In fact at the 57<sup>th</sup> World Health Assembly organised by WHO in Geneva in May 2004, the Issue of Human Organ and Tissue Transplantation was addressed. One of the resolutions passed included requesting among other things for the Director General of Health of member countries to collect and examine data on practices, safety, quality, efficacy and epidemiology of organ and tissue transplantation. The aim is to foster global collection of data on donation and transplantation of all organs and tissues. With the setting up of the NTR and the publication of the second report we are surely moving in the right direction in this respect.

In this second report of the National Transplant Registry, there are no major surprises. New information and updates have been added to the first report. You may notice some discrepancies in the numbers of patients transplanted in the various years listed if you were to compare this second report with the first report. These discrepancies are unavoidable to some extent as transplants done in a particular year may only be reported in later years as data gets updated.

Transplantation activity in this country however remains relatively low. In 2005 the transplants that were done in Malaysia included:

- 192 corneal transplants
- 145 blood and bone marrow transplants
- 46 kidney transplants
- 5 liver transplants
- 1 heart and 1 lung transplant



The majority of the corneas were from USA (71%) and Sri Lanka (17%). Only 12% of corneas were obtained from local donors. Similarly an additional 109 kidney failure patients went overseas for commercial transplants. These commercial transplants done overseas make up 70% of new renal transplant recipients. Even if we take these into account, the kidney transplant rate in Malaysia is low at about 6 per million population per year. In contrast, the intake of new dialysis patients was 101 per million population in 2005. This means that that less than 6% of end stage kidneys failure get transplanted – the vast majority having to accept live long dialysis therapy as their only option. In 2005, our cadaver organ donation rate remains very low at 0.53 per million population.

We hope all that all parties concerned will work harder to find ways to increase the level of transplant activity in this country. We all share the same desire to improve the plight of many Malaysians who are in dire need of life saving organ transplants or tissue transplants that will improve the quality of lives.

This low level of transplant activity may also have an impact on the long-term viability of the National Transplant Registry. However in the near term we are confident that the NTR will continue to develop and progress. We are fortunate that the founding members of the NTR including Tan Sri Dato' Dr. Yahya Awang, Dato' Dr. Zaki Morad Mohd. Zaher, Datin Dr. Lela Yasmin Mansor and Dr. Lim Teck Onn remain enthusiastic and committed. It is also hoped that Dr. Hooi Lai Seong who has contributed much of her free time doing the tedious work of editing this report will continue as editor for future reports. The NTR continues to depend on financial support from the Ministry of Health, the pharmaceutical industry and other well-wishers. It is hoped that all concerned will realize the benefits of having a national transplant registry and continue to contribute to its success and development.

Thank you.

Tan Chwee Choon  
On behalf of the Executive Committee  
Malaysian Society of Transplantation