

**23rd REPORT OF
THE MALAYSIAN DIALYSIS
& TRANSPLANT REGISTRY

2015**

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For their generous support:-

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ABOUT THE MALAYSIAN DIALYSIS AND TRANSPLANT REGISTRY (MDTR)

The Malaysia Dialysis and Transplant Registry (MDTR) collects information on patients with end stage renal disease (ESRD) on renal replacement therapy (RRT) in Malaysia.

Objectives:

The objectives of the registry are as follows:

1. **Describe the natural history of ESRD.** The registry shall describe the characteristics of patients with ESRD, its management, patient survival and quality of life outcomes with treatment; and shall describe variation thereof across different groups, healthcare sectors or geographic regions, and its secular trend over time in Malaysia.
2. **Determine effectiveness of treatments for ESRD.** The registry shall determine clinical effectiveness and cost effectiveness of treatments of ESRD in real-world clinical practices in Malaysia.
3. **Monitor safety and harm of products and services used in the treatment of ESRD.** The registry shall serve as an active surveillance system for the occurrence of unexpected or harmful events for products and services.
4. **Evaluating access to and quality of treatment services for ESRD.** The registry shall assess differences between providers or patient populations based on performance measures that compare treatments provided or outcomes achieved with "gold standards" (e.g., evidence-based guidelines) or comparative benchmarks for specific health outcomes (e.g., risk-adjusted survival rates). Such programs may be used to identify disparities in access to care, demonstrate opportunities for improvement, establish differentials for payment by third parties, or provide transparency through public reporting.
5. **To maintain the national renal transplant waiting list electronically – the eMOSS or electronic Malaysian Organ Sharing System.** The dialysis registry shall maintain and update patients on dialysis who do not have contraindications to kidney transplantation onto the national renal transplant waiting list according to published agreed criteria. This list is available on the web for ready access by the transplant physicians any time a deceased kidney becomes available.

Registry design:

This is a multi-center, observational cohort study designed to evaluate the health outcomes of patients with ESRD undergoing treatment at participating clinical centres. Patient inclusion criterion is deliberately broad and shall include any patient with a confirmed diagnosis of ESRD.

There is no prescribed study visits. Patient shall attend the clinical site as and when required per the standard of care at the site. Required data shall be collected as they become available.

- A clinical site shall notify all new patients to the registry, and shall continue to do so until the termination of the registry. Patients shall be follow-up for life.
- Participation. Site shall notify the patients' treatment to the registry in a calendar year of its participation. A site shall similarly notify patients during each year of its participation in the registry.

Registry study population:

The registry study population consists of male or female patients with ESRD to be recruited from participating sites in Malaysia. Participation in this study is voluntary. However, in accordance with the Private Health-care Facilities Act 1998 (AKTA 586), all dialysis health facility are required to submit data to the Malaysian Dialysis and Transplant Registry (MDTR).

All clinical centres or sites that satisfy the following selection criteria will be invited to participate:

1. This registry is opened to all clinical sites that provide RRT services for patients with ESRD in Malaysia.
2. Each site shall have a Principal Investigator who is also a licensed physician / Surgeon and a qualified professional experienced with ESRD management.
3. Each site shall appoint a Site Coordinator (SC). The SC is the person at the participating clinical site who is responsible for all aspects of registry management and data collection at site, and who will liaise with the Clinical Registry Manager (CRM) and Clinical Registry Assistant (CRA) at the Registry Coordinating Centre (RCC).
4. Each site shall accept responsibility for data collection, as well as for ensuring proper record keeping and registry document filing.
5. Each site shall agree to comply with the registry procedures and shall be willing to be subjected to ongoing review of data by CRM or CRA or other representative of MDTR. This may include one or more site visits by prior arrangement, if necessary.

Patient eligibility criteria:

- All new patients with ESRD undergoing treatment at a participating clinical site are eligible for entry into the registry.
- In addition, a site may opt to enter existing patients on follow-up at the site into the registry.

Registry data:

The data elements to be collected by the registry shall be relevant and reliable with modest burden to sites, shall comply with existing data standard where this exists, shall be compatible with established data set used by other existing registries, and shall employ standard terminology (dictionary) where available.

Two datasets are defined:

- Core dataset: These are data elements that are needed to address the key questions for which the registry was created.
- Non-core dataset: these are speculative data elements included to provide an opportunity to generate hypotheses or to explore other subsidiary questions not of primary interest to the registry.

The data domains and related specific data elements to be collected by this registry is tabulated below:

A	Identifier	Name, NRIC number, Other identifying document numbers, Address, Contact numbers
B	Demographics	Age, Sex, Ethnicity, Educational attainment, Occupation, Household Income group, Weight & Height, Use of tobacco, Funding for Treatment
C	Medical history	Medical history/ comorbidities, Family history
D	ESRD diagnosis	Date of first diagnosis, Date re-entering each RRT.
E	Laboratory investigations	Date & time of tests, Blood chemistry, Hematology, Serology
F	Treatment	Modalities of RRT - haemodialysis, peritoneal dialysis; treatment of other uraemic complications; kidney transplantation
G	Outcomes	Patient survival; death, date of death, cause of death Quality of Life/ Work rehabilitation status
H	Economics	Source of funding for dialysis treatment, and immunosuppressive drug treatment for transplantation
J	Healthcare provider characteristics	Sector providing dialysis treatment, (private, public or NGO)

PARTICIPATING HAEMODIALYSIS CENTRES 2015

Haemodialysis Centre	CC#	AR	Haemodialysis Centre	CC#	AR
801 Rumah Sakit Angkatan Tentera (Kuching)	No*	<80%	Damai Medical & Heart Clinic	Yes	>=80%
94 Hospital Angkatan Tentera (Terendak)	No*	>=80%	Damansara Specialist Hospital	Yes	>=80%
96 Hospital Angkatan Tentera (Lumut)	Yes	>=80%	Darul Naim Dialysis	No*	>=80%
Afiat Dialysis Centre	No*	<80%	Davita Seri Setia Haemodialysis Centre (KL)	Yes	>=80%
Aiman Dialysis Centre	Yes	>=80%	DEMC Dialysis Centre	Yes	>=80%
Al-Islam Specialist Hospital	Yes	>=80%	Dialisis Waqaf An-nur (Pasir Gudang)	No*	>=80%
Alkom Bakti Dialysis	No#	>=80%	Dkasih Hemodialisis (Jempol)	No	<80%
Al-Musoffa Haemodialysis Centre	No	No	D'kasih Hemodialisis (Seremban)	Yes	>=80%
Alor Gajah Dialysis Centre	Yes	>=80%	DSS Dialysis Centre (Rawang)	Yes	>=80%
Alor Gajah Hospital	No	<80%	Duchess of Kent Hospital	Yes	>=80%
Alor Setar Dialysis Centre	Yes	>=80%	Dungun Hospital	No*	>=80%
Amanjaya Specialist Centre	No*	>=80%	Eagles Dialysis Centre	Yes	>=80%
AMD Rotary (Penang)	Yes	>=80%	EAM Dialysis Centre	Yes	>=80%
Ampang Hospital	Yes	>=80%	Falah Nephrocare	Yes	>=80%
AMS Haemodialysis Centre	No	<80%	Fatimah Hospital	Yes	>=80%
Anson Bay Medical Centre	Yes	>=80%	Fo Yi NKF Dialysis Centre (1)	Yes	>=80%
Apex Club of Klang-NKF Charity Dialysis Centre	Yes	>=80%	Fo Yi NKF Dialysis Centre (2)	Yes	>=80%
Assunta Hospital	Yes	>=80%	Gerik Hospital	Yes	>=80%
Bakti-NKF Dialysis Centre	Yes	>=80%	Giati Kurnia Dialysis Centre (Nilai)	No*	>=80%
Balik Pulau Hospital	Yes	>=80%	Gleneagles Kota Kinabalu	Yes	>=80%
Baling Hospital	Yes	>=80%	Gleneagles Medical Centre	Yes	>=80%
Bangi Dialysis Centre	Yes	>=80%	Gua Musang Hospital	No*	<80%
Banting Hospital	Yes	>=80%	Haemodialysis Association Klang	Yes	>=80%
Batu Gajah Hospital	Yes	>=80%	Haemodialysis Bestari Kampar	No	<80%
Batu Pahat Rotary	Yes	>=80%	Happy Kid Nees Dialysis Centre	No*	>=80%
Bau Hospital	Yes	>=80%	Harmoni Dialysis (Sg Long)	No	<80%
BBA (Butterworth) Dialysis Centre	Yes	>=80%	Harmony Sofia Dialysis Centre	Yes	>=80%
BBA (Kota Kinabalu) Dialysis Centre	Yes	>=80%	Healthcare Dialysis Centre	Yes	>=80%
BBA (Puchong) Dialysis Centre	No	<80%	Hemodialisis Bukit Payong	No*	>=80%
BBA (Tawau) Dialysis Centre	Yes	>=80%	Hemodialisis Yayasan Veteran ATM (S Kembangan)	Yes	>=80%
Beaufort Hospital	Yes	>=80%	Hope Haemodialysis Society Ipoh	No*	>=80%
Beluran Hospital	Yes	>=80%	Hospital Angkatan Tentera Tuanku Mizan	Yes	>=80%
Bentong Hospital	Yes	>=80%	Hospital Daerah Daro	Yes	>=80%
Bertam Dialysis Centre	No*	>=80%	Hospital Enche' Besar Hajjah Khalsom	Yes	>=80%
Besut Hospital	Yes	>=80%	Hospital Pakar Sultanah Fatimah (Muar)	Yes	>=80%
Betong Hospital	Yes	>=80%	Hospital Pusrawi	Yes	>=80%
Bintulu Hospital	Yes	>=80%	Hospital Queen Elizabeth II	Yes	>=80%
Bintulu Specialist Hospital	Yes	>=80%	Hospital Sultanah Hajjah Kalsom	Yes	>=80%
Borneo Specialist Hospital	No	<80%	Hospital Sultanah Nora Ismail	Yes	>=80%
BP Renal Care (Batu Pahat)	Yes	>=80%	Hospital Wanita Dan Kanak-Kanak Sabah	Yes	>=80%
BP Renal Care (Kluang)	Yes	>=80%	Hudaz Dialysis Centre (Pasir Pekan)	No*	>=80%
BP Renal Care (Rengit)	Yes	>=80%	Hudaz Tunjong Dialysis Centre	No*	<80%
BP Renal Care (Segamat)	Yes	>=80%	Hulu Terengganu Hospital	No*	>=80%
BP Renal Care Simpang Renggam	Yes	>=80%	Ibnu Al-Nafis Dialysis Centre	No*	>=80%
BP Renalcare (Yong Peng)	Yes	>=80%	Iman Dialysis	Yes	>=80%
Buddhist Tzu Chi Dialysis Centre (Butterworth)	Yes	>=80%	IMU Dialysis Centre	Yes	>=80%
Buddhist Tzu Chi Dialysis Centre (Kedah)	Yes	>=80%	Island Hospital	Yes	>=80%
Buddhist Tzu Chi HD Centre (Penang)	Yes	>=80%	Jasin Hospital	Yes	>=80%
Bukit Mertajam Hospital	Yes	>=80%	JB Lions MAA-Medicare Charity Dialysis Centre (1)	Yes	>=80%
C.S. Loo Kidney & Medical Specialist Centre	Yes	>=80%	JB Lions MAA-Medicare Charity Dialysis Centre (2)	Yes	>=80%
Caring Dialysis (Sandakan)	Yes	>=80%	Jelebu Hospital	No*	>=80%
Carlattan Dialysis Centre (Bukit Mertajam)	Yes	>=80%	Jeli Hospital	No*	>=80%
Carlattan Dialysis Centre (Sungai Petani)	Yes	>=80%	Jempol Hospital	No*	>=80%
Changkat Melintang Hospital	Yes	>=80%	Jengka Hospital	No*	>=80%
Charis-NKF Dialysis Centre	Yes	>=80%	Jerantut Hospital	Yes	>=80%
Che Eng Khor Centre	No*	>=80%	Jerteh Dialysis Centre	Yes	>=80%
Cheras Dialysis Centre	Yes	>=80%	JJ Lions Dialysis Centre	Yes	>=80%
CHKMUS-MAA Medicare Charity	Yes	>=80%	Johor Quarries Association Dialysis Centre	No*	<80%
Dalat Hospital	Yes	>=80%	Johor Specialist Hospital	Yes	>=80%
Damai Dialysis (Merlimau)	No	Late SDP	Kaizenbros Dialysis Centre	No*	<80%

= Late AR * = No survey

PARTICIPATING HAEMODIALYSIS CENTRES 2015 (con't)

Haemodialysis Centre	CC#	AR	Haemodialysis Centre	CC#	AR
Kajang Hospital	Yes	>=80%	Marudi Hospital	Yes	>=80%
Kampar Hospital	No*#	>=80%	MB Star Rawatan Dialisis (Hutan Melintang)	Yes	>=80%
Kanowit Hospital	Yes	>=80%	MB Star Rawatan Dialisis (Kelana Jaya)	No*	<80%
Kapit Hospital	Yes	>=80%	MB Star Rawatan Dialisis (Teluk Intan)	Yes	>=80%
KAS-Rotary-NKF	No*	>=80%	MB Star Rawatan Dialisis Puchong Utama	No*	<80%
Kay Tee Dialisis	No*	>=80%	Melaka Hospital	Yes	>=80%
Kemaman Hospital	No	<80%	Mentakab Haemodialysis Unit	Yes	>=80%
Keningau Hospital	Yes	>=80%	Mersing Hospital	Yes	>=80%
Kepala Batas Hospital	Yes	>=80%	Mersing Rotary Centre	Yes	>=80%
Klinik Kesihatan Debak	No	Late SDP	Metro Specialist Hospital	Yes	>=80%
Klinik Kesihatan Mahligai, HD Uni	Yes	>=80%	Miri Hospital	Yes	>=80%
Klinik Kesihatan Song	Yes	>=80%	Miri Red Crescent Dialysis Centre	Yes	>=80%
Klinik Kesihatan Sungai Lembing	No	<80%	Muadzam Shah Hospital	Yes	>=80%
Kota Belud Hospital	Yes	>=80%	Muar Dialysis	Yes	>=80%
Kota Kinabatangan Hospital	Yes	>=80%	Muar Lions Renal Centre	Yes	>=80%
Kota Marudu Hospital	Yes	>=80%	Muhibah Renal Care	No	<80%
Kota Tinggi Hospital	Yes	>=80%	Mukah Hospital	Yes	>=80%
KPJ Ampang Puteri Specialist Hospital	No	<80%	Mynephro Dialysis Sdn Bhd	Yes	>=80%
KPJ Kajang Specialist Hospital	No	<80%	Mysha Qasih Dialysis Centre	Yes	>=80%
KPJ Klang Specialist Hospital	Yes	>=80%	Nefrol I-Care HDC	Yes	>=80%
KPJ Kluang Utama Specialist Hospital	No	<80%	NEPH Dialysis Centre Sdn Bhd	Yes	>=80%
KPJ Penang Specialist Hospital	Yes	>=80%	Neph Sdn Bhd (Sg Ara)	No*	<80%
KPJ Puteri Specialist Hospital	Yes	>=80%	Nephcare Dialysis Centre	Yes	>=80%
KPJ Sabah Specialist Hospital	Yes	>=80%	Nephrolife Dialysis Centre	No*	>=80%
KPJ Selangor Specialist Hospital	No	<80%	Nobel Dialysis Centre Tuaran	Yes	>=80%
Kuala Kangsar Hospital	Yes	>=80%	Nobel Dialysis Centre	Yes	>=80%
Kuala Krai Hospital	No*	>=80%	Normah Medical Specialist Centre	Yes	>=80%
Kuala Kubu Bharu Hospital	Yes	>=80%	Northern Dialysis Centre	No	<80%
Kuala Lipis Hospital	Yes	>=80%	NSCMH 1 Dialysis Care	No	<80%
Kuala Lumpur Hospital (Paed)	Yes	>=80%	Nucare Dialysis Centre	No#	<80%
Kuala Lumpur Hospital	No	<80%	Nur Dialysis Centre	Yes	>=80%
Kuala Lumpur Lions Renal Centre	Yes	>=80%	Nur Iman Dialysis Pahang	No*	>=80%
Kuala Nerang Hospital	Yes	>=80%	Oriental Melaka Straits Medical Centre	Yes	>=80%
Kuala Penyu Hospital	Yes	>=80%	Pahang Buddhist Association	Yes	>=80%
Kuantan Clinical Diagnostic Centre	No*	<80%	Pakar Perdana Hospital	Yes	>=80%
Kuantan Dialysis Centre	No*	>=80%	Pantai Air Keroh Hospital	Yes	>=80%
Kuantan Specialist Centre	Yes	>=80%	Pantai ARC Dialysis Services	Yes	>=80%
Kuching Specialist Hospital	Yes	>=80%	Pantai Hospital Ampang	Yes	>=80%
Kudat Hospital	Yes	>=80%	Pantai Hospital Penang	Yes	>=80%
Kulim Hospital	Yes	>=80%	Pantai Hospital Sungai Petani	Yes	>=80%
Labuan Hospital	Yes	>=80%	Papar Hospital	Yes	>=80%
Lahad Datu Hospital	Yes	>=80%	Parit Buntar Hospital	Yes	>=80%
Lam Wah Ee Hospital	Yes	>=80%	Pasir Mas Hospital	Yes	>=80%
Langkawi Hospital	Yes	>=80%	Pekan Hospital	No	<80%
Lawas Hospital	Yes	>=80%	Pelangi Haemodialysis Centre	Yes	>=80%
Likas Hospital (Paed)	No*	>=80%	Penang Adventist Hospital	Yes	>=80%
Lim Boon Sho Dialysis Centre	Yes	>=80%	Penang Caring Dialysis Society	Yes	>=80%
Limbang Hospital	Yes	>=80%	Persada Dialysis Centre	Yes	>=80%
Lions Club Kota Budaya Dialysis Centre	No*	<80%	Persatuan Amal Chin Malaysia Barat	No*	<80%
Lipis Dialysis Centre	No*	>=80%	Persatuan Buah Pinggang Sabah	Yes	>=80%
Loh Guan Lye Specialist Centre	Yes	>=80%	Persatuan Dialisis Cahaya Kuching	Yes	>=80%
Lundu Hospital	Yes	>=80%	Persatuan Dialisis Kurnia PJ	Yes	>=80%
MAA Charity Dialysis (Kota Bharu)	Yes	>=80%	Persatuan Dialisis Masjid Jamek Sultan Abdul Aziz	Yes	>=80%
MAA-Medicare Charity (Butterworth)	Yes	>=80%	Persatuan Hemodialysis Kinabalu Sabah	Yes	>=80%
MAA-Medicare Charity (Kuala Lumpur)	Yes	>=80%	Persatuan Kebajikan Haemodialysis St Anne BM	Yes	>=80%
MAA-Medicare Charity (Sg Besi)	Yes	>=80%	Persatuan Membaiki Akhlak-Che Luan Khor_NKF	Yes	>=80%
MAA-Medicare Charity (Teluk Intan)	Yes	>=80%	Pertubuhan Bakti Fo En Bandar Kulim	Yes	>=80%
MAA-Medicare Kidney (Kajang)	Yes	>=80%	Pertubuhan Dialisis Rotary-Satu Hati	Yes	>=80%
Machang Hospital	No*	>=80%	Pertubuhan Hemodialisis Muhibbah Segamat (Labis)	No*	>=80%
Mahkota Medical Centre	Yes	>=80%	Pertubuhan Hemodialisis Muhibbah	Yes	>=80%

= Late AR * = No survey

PARTICIPATING HAEMODIALYSIS CENTRES 2015 (con't)

Haemodialysis Centre	CC#	AR	Haemodialysis Centre	CC#	AR
Pertubuhan Hemodialisis SPS	Yes	>=80%	Pusat Dialisis Mesra (Kuala Selangor)	No*	>=80%
Pertubuhan Kebajikan Amitabha	Yes	>=80%	Pusat Dialisis Mukmin Gurun	Yes	>=80%
Pertubuhan Kebajikan Hemodialisis			Pusat Dialisis Mukmin Ipoh	Yes	>=80%
Hospital Pakar Putra Melaka	No	<80%	Pusat Dialisis Mukmin Seremban	Yes	>=80%
Pertubuhan Perkhidmatan Haemodialisis			Pusat Dialisis Mukmin Sikamat	Yes	>=80%
Ar-Ridzuan	Yes	>=80%	Pusat Dialisis Mukmin Simpang Ampat	No	<80%
Pertubuhan Perkhidmatan Hemodialisis AIXIN			Pusat Dialisis Mukmin Sungai Buloh	Yes	>=80%
Kerian	Yes	>=80%	Pusat Dialisis Mukmin Telok Panglima Garang	Yes	>=80%
Peter Mole MAA-Medicare Charity Dialysis Centre	Yes	>=80%	Pusat Dialisis Mukmin Temerloh	Yes	>=80%
Pitas Hospital	No	No	Pusat Dialisis Murni	No	<80%
PJCC Dialysis Centre	No*	<80%	Pusat Dialisis Mutiara (Ayer Tawar)	No	<80%
Platinum Dialysis Centre	No*	>=80%	Pusat Dialisis Mutiara	Yes	>=80%
PMA Chan Meng Khor-MAA Medicare Charity			Pusat Dialisis Myangkasa	Yes	>=80%
Dialysis Centre	Yes	>=80%	Pusat Dialisis Nefro Utama (Bangsar)	No	<80%
Pontian Hospital	Yes	>=80%	Pusat Dialisis Nefro Utama (Benut)	Yes	>=80%
Pontian Rotary Haemodialysis Centre	No*	>=80%	Pusat Dialisis Nefro Utama (Johor Bahru)	Yes	>=80%
Port Dickson Hospital	Yes	>=80%	Pusat Dialisis Nefro Utama (Kota Tinggi)	Yes	>=80%
Premier Renal Care	Yes	>=80%	Pusat Dialisis Nefro Utama (Melaka)	Yes	>=80%
Prima Dialisis Kluang	Yes	>=80%	Pusat Dialisis Nefro Utama (Seberang Perai)	No*	<80%
Prima Dialisis Lagenda Putra	No*	>=80%	Pusat Dialisis Nefro Utama Alor Setar	Yes	>=80%
Prima Dialisis Masai	No*	>=80%	Pusat Dialisis Nefro Utama Pontian	Yes	>=80%
Prince Court Medical Centre	Yes	>=80%	Pusat Dialisis Nephrocare (Bukit Piatu)	Yes	>=80%
Professional Dialysis Solution	Yes	>=80%	Pusat Dialisis Nephrocare (Klang)	Yes	>=80%
Province Wellesley Renal Medifund	Yes	>=80%	Pusat Dialisis NKF - Dato' Dr GA Sreenevasan	Yes	>=80%
Pulau Pangkor Hospital	No	<80%	Pusat Dialisis NKF-Kelab Lions Alor Star	Yes	>=80%
Pulau Pinang Hospital (Paed)	Yes	>=80%	Pusat Dialisis NKF-Rotary Damansara	Yes	>=80%
Pulau Pinang Hospital	Yes	>=80%	Pusat Dialisis NKF-Sandakan Kidney Society	Yes	>=80%
Pusat Amal Dialisis MAA Medicare (Mentakab)	Yes	>=80%	Pusat Dialisis NKF-Sang Riang (Triang)	Yes	>=80%
Pusat Dialisis & Kesihatan Masjid Bandar Baru Uda	Yes	>=80%	Pusat Dialisis NKF-Yayasan Buah Pinggang Kemaman	Yes	>=80%
Pusat Dialisis Aiman (Shah Alam)	Yes	>=80%	Pusat Dialisis NKF-Yayasan Dialisis Pertubuhan		
Pusat Dialisis Aiman Cheras	Yes	>=80%	Pendidikan Akhlak Taiping	No*	>=80%
Pusat Dialisis Airah	Yes	>=80%	Pusat Dialisis NKF-Yayasan Pembangunan		
Pusat Dialisis Albukhary	Yes	>=80%	Keluarga Darul Ta'zim	Yes	>=80%
Pusat Dialisis An'nur Seksyen 13	Yes	>=80%	Pusat Dialisis NKF-Yayasan Sultanah Bahiyah	Yes	>=80%
Pusat Dialisis An'nur	No*	<80%	Pusat Dialisis Nuraeen	No*	>=80%
Pusat Dialisis Bandar Sri Permaisuri	Yes	>=80%	Pusat Dialisis Pakar Medi-Nefron (Lestari)	Yes	>=80%
Pusat Dialisis BMC	No	<80%	Pusat Dialisis Pakar Medi-Nefron (Putra Permai)	Yes	>=80%
Pusat Dialisis Cahaya	Yes	>=80%	Pusat Dialisis Pakar	Yes	>=80%
Pusat Dialisis CAT Negeri Pulau Pinang	Yes	>=80%	Pusat Dialisis Palomar	Yes	>=80%
Pusat Dialisis Darul Iltizam (Slim River)	Yes	>=80%	Pusat Dialisis Penawar Permai	No*	>=80%
Pusat Dialisis Darul Iltizam (Taiping)	Yes	>=80%	Pusat Dialisis Perbadanan Islam (Johor Bahru)	Yes	>=80%
Pusat Dialisis Ehsan Perak (Bagan Serai)	No*	>=80%	Pusat Dialisis Perbadanan Islam (Mersing)	Yes	>=80%
Pusat Dialisis Ehsan Perak (Parit Buntar)	No*	>=80%	Pusat Dialisis Perbadanan Islam (Pontian)	Yes	>=80%
Pusat Dialisis Ehsan Perak (Perda)	No	<80%	Pusat Dialisis PNSB	Yes	>=80%
Pusat Dialisis Gemilang	No	<80%	Pusat Dialisis PPBPT	Yes	>=80%
Pusat Dialisis Giat Kurnia (Masjid Tanah)	No*	>=80%	Pusat Dialisis Prima	No	<80%
Pusat Dialisis Ibnu Sina (Kuala Ketil)	Yes	>=80%	Pusat Dialisis Rakyat Ampang	Yes	>=80%
Pusat Dialisis Jasmine	Yes	>=80%	Pusat Dialisis Rakyat Lembah Keramat	No	<80%
Pusat Dialisis Khidmat	Yes	>=80%	Pusat Dialisis Rakyat Sementa	Yes	>=80%
Pusat Dialisis Kuala Kangsar	No	<80%	Pusat Dialisis Rakyat Taman Medan	Yes	>=80%
Pusat Dialisis LZS (Kapar)	Yes	>=80%	Pusat Dialisis Renal Pure	Yes	>=80%
Pusat Dialisis LZS (Sg. Besar)	Yes	>=80%	Pusat Dialisis Serai Wangi	Yes	>=80%
Pusat Dialisis MAIDAM	No*	<80%	Pusat Dialisis Setia (Ipoh)	No	<80%
Pusat Dialisis MAIS (Melawati)	Yes	>=80%	Pusat Dialisis Setia (Setiawan)	No	<80%
Pusat Dialisis MAIS (Shah Alam)	Yes	>=80%	Pusat Dialisis Sijangkang	Yes	>=80%
Pusat Dialisis MAIS	Yes	>=80%	Pusat Dialisis Simpang Renggam	Yes	>=80%
Pusat Dialisis Majlis Ugama Islam dan Adat			Pusat Dialisis SJ (Sg Bakap)	Yes	>=80%
Resam Melayu Pahang	Yes	>=80%	Pusat Dialisis Subang	Yes	>=80%
Pusat Dialisis Makmur (Batu Gajah)	Yes	>=80%	Pusat Dialisis Taiping (Kamunting)	Yes	>=80%
Pusat Dialisis Marjina	No*	>=80%	Pusat Dialisis Taiping (Kuala Kangsar)	Yes	>=80%

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PARTICIPATING HAEMODIALYSIS CENTRES 2015 (con't)

Haemodialysis Centre	CC#	AR	Haemodialysis Centre	CC#	AR
Pusat Dialisis Taiping (Parit Buntar)	Yes	>=80%	Pusat Hemodialisis Fasa (Kg Medan)	No	<80%
Pusat Dialisis Taiping	No*	<80%	Pusat Hemodialisis Fasa (Sri Manja)	Yes	>=80%
Pusat Dialisis Terengganu/NKF	Yes	>=80%	Pusat Hemodialisis Felda	Yes	>=80%
Pusat Dialisis Touch	Yes	>=80%	Pusat Hemodialisis Gemencheh	Yes	>=80%
Pusat Dialisis Veteran ATM (Senawang)	Yes	>=80%	Pusat Hemodialisis Harmoni (Cheras)	No*	>=80%
Pusat Dialisis Veteran ATM (Seri Rampai)	No*	<80%	Pusat Hemodialisis Harmoni (Shamelin)	Yes	>=80%
Pusat Dialisis Waqaf An Nur Masjid Taman Bukit Tiram	Yes	>=80%	Pusat Hemodialisis Hidayah	Yes	>=80%
Pusat Dialisis Waqaf An-nur (Batu Pahat)	No*	<80%	Pusat Hemodialisis Impian Kluang	Yes	>=80%
Pusat Dialisis Yayasan Buah Pinggang			Pusat Hemodialisis Impian	Yes	>=80%
Kebangsaan (Kota Bharu)	No	<80%	Pusat Hemodialisis Jerantut	No	<80%
Pusat Dialisis Yayasan PHIM	Yes	>=80%	Pusat Hemodialisis Kampar Yayasan Nanyang-SJAM	No*	>=80%
Pusat Dialisis Zara	No	<80%	Pusat Hemodialisis Kau Ong Yah Ampang	Yes	>=80%
Pusat Dialisis Azalea	No*#	<80%	Pusat Hemodialisis KOPPES	No*	>=80%
Pusat Dialisis Comfort	Yes	>=80%	Pusat Hemodialisis Krisda	Yes	>=80%
Pusat Dialisis Ikhlas	Yes	>=80%	Pusat Hemodialisis Kwan	No	<80%
Pusat Dialisis Makmur (Senai)	Yes	>=80%	Pusat Hemodialisis MAIJ	Yes	>=80%
Pusat Dialisis Mesra (Kapar)	No*	>=80%	Pusat Hemodialisis MAIWP-PICOMS (Cheras)	Yes	>=80%
Pusat Dialisis Mesra (Rahman Putra)	No*	<80%	Pusat Hemodialisis MAIWP-PICOMS (Jln Pahang)	No*	<80%
Pusat Dialisis Nefro Utama (Kajang Prima)	Yes	>=80%	Pusat Hemodialisis MAIWP-PICOMS	Yes	>=80%
Pusat Dialisis Remedic	No	<80%	Pusat Hemodialisis Manjung	Yes	>=80%
Pusat Dialisis Sayang Dialysis	Yes	>=80%	Pusat Hemodialisis Mawar (Kuala Pilah)	Yes	>=80%
Pusat Dialisis Sri Manja	Yes	>=80%	Pusat Hemodialisis Mawar (Mantin)	Yes	>=80%
Pusat Dialisis Tuanku Syed Putra_NKF	Yes	>=80%	Pusat Hemodialisis Mawar (Serian)	Yes	>=80%
Pusat Dialisis YKN Pantai Dalam	Yes	>=80%	Pusat Hemodialisis Mawar (Yong Peng)	Yes	>=80%
Pusat Haemodialisis Bayu Caw. Taman Tasik Jaya	No*#	>=80%	Pusat Hemodialisis Mawar Gemas	Yes	>=80%
Pusat Haemodialisis Bayu Rembau	No*	<80%	Pusat Hemodialisis Mawar Kuching	Yes	>=80%
Pusat Haemodialisis Dr Ismail (Cawangan Guar)	Yes	>=80%	Pusat Hemodialisis Mawar N. Sembilan (Bahau)	Yes	>=80%
Pusat Haemodialisis Dr. Ismail	Yes	>=80%	Pusat Hemodialisis Mawar N. Sembilan (Lukut)	Yes	>=80%
Pusat Haemodialisis RTC Terengganu	No*	>=80%	Pusat Hemodialisis Mawar N. Sembilan (Rantau)	Yes	>=80%
Pusat Haemodialisis Senawang	No*	>=80%	Pusat Hemodialisis Mawar N. Sembilan (Sepang)	Yes	>=80%
Pusat Haemodialisis Suria (Tampin)	No	<80%	Pusat Hemodialisis Mawar N. Sembilan (Seputih)	Yes	>=80%
Pusat Haemodialisis Suria (Tangkak)	Yes	>=80%	Pusat Hemodialisis Mawar N. Sembilan (Seremban)	Yes	>=80%
Pusat Haemodialisis Well Care	Yes	>=80%	Pusat Hemodialisis Mawar N. Sembilan (Seri Kembangan)	Yes	>=80%
Pusat Haemodialisis Zakat (Bayan Lepas)	Yes	>=80%	Pusat Hemodialisis Mergong	No*	>=80%
Pusat Haemodialisis Zakat (Nibong Tebal)	No	<80%	Pusat Hemodialisis Muar	No	<80%
Pusat Haemodialisis Zakat Kedah	Yes	>=80%	Pusat Hemodialisis Myangkasa	Yes	>=80%
Pusat Haemodialisis Zakat Tasek Gelugor	Yes	>=80%	Pusat Hemodialisis Nabilah	No	<80%
Pusat Haemodialisis Majlis Agama Islam Negeri Johor	Yes	>=80%	Pusat Hemodialisis Nilam (Semenyih)	No	<80%
Pusat Haemodialisis Nilam (Seri Kembangan)	No	<80%	Pusat Hemodialisis Nour	Yes	>=80%
Pusat Haemodialisis Prihatin Tengku Besar Terengganu	No	<80%	Pusat Hemodialisis Nur'ain	Yes	>=80%
Pusat HD SJAM Bacang Melaka	Yes	>=80%	Pusat Hemodialisis Perkis	No	<80%
Pusat Hemodialisis Al Husna	Yes	>=80%	Pusat Hemodialisis Permata	Yes	>=80%
Pusat Hemodialisis Ar-Raudhah	Yes	>=80%	Pusat Hemodialisis PMKL	Yes	>=80%
Pusat Hemodialisis As Salam	No	No	Pusat Hemodialisis Qaseh	Yes	>=80%
Pusat Hemodialisis Bayan Baru	Yes	>=80%	Pusat Hemodialisis Rahimra	No	No
Pusat Hemodialisis Bayu	No*#	>=80%	Pusat Hemodialisis Rotary Kota Tinggi	No*	>=80%
Pusat Hemodialisis Beng Siew	No	No	Pusat Hemodialisis Sejahtera (Batu Pahat)	Yes	>=80%
Pusat Hemodialisis Berkat Seroja (Kuala Pilah)	Yes	>=80%	Pusat Hemodialisis Sejahtera Muar	Yes	>=80%
Pusat Hemodialisis Berkat Seroja (Machang)	Yes	>=80%	Pusat Hemodialisis Seroja (Baling)	Yes	>=80%
Pusat Hemodialisis Darul Iltizam (Ipoh)	Yes	>=80%	Pusat Hemodialisis Seroja (Kulim 1)	Yes	>=80%
Pusat Hemodialisis Darul Iltizam (Tapah)	No*	>=80%	Pusat Hemodialisis Seroja (Kulim 2)	No	<80%
Pusat Hemodialisis Darul Ta'zim (Batu Pahat)	Yes	>=80%	Pusat Hemodialisis Shah Alam	No	<80%
Pusat Hemodialisis Darul Ta'zim (Parit Raja)	Yes	>=80%	Pusat Hemodialisis Sinona	Yes	>=80%
Pusat Hemodialisis Dato' Lee Kok Chee	No	<80%	Pusat Hemodialisis SJAM Pulau Sebang	No	<80%
Pusat Hemodialisis Desa Aman Puri	Yes	>=80%	Pusat Hemodialisis SP	Yes	>=80%
Pusat Hemodialisis Dr Azhar (Kulim 2)	Yes	>=80%	Pusat Hemodialisis Suria (Jengka)	Yes	>=80%
Pusat Hemodialisis Dr Azhar (Kulim)	Yes	>=80%	Pusat Hemodialisis Syifa (Bandar Penawar)	No	Late SDP
Pusat Hemodialisis Dr Azhar Jitra	No*	>=80%	Pusat Hemodialisis Syifa (Batangkali)	Yes	>=80%
			Pusat Hemodialisis Syifa (Bukit Gambir)	No*	>=80%

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PARTICIPATING HAEMODIALYSIS CENTRES 2015 (con't)

Haemodialysis Centre	CC#	AR	Haemodialysis Centre	CC#	AR
Pusat Hemodialisis Syifa (Pendang)	No	<80%	Pusat Waqaf An-nur (Senawang)	Yes	>=80%
Pusat Hemodialisis Waz Lian	No	<80%	Putera Bistari Dialysis Centre	Yes	>=80%
Pusat Hemodialisis Yayasan Toh Puan Zurina	Yes	>=80%	Putra Medical Centre	Yes	>=80%
Pusat Hemodialisis Zakat (Balik Pulau)	Yes	>=80%	Putra Specialist Hospital (Melaka)	Yes	>=80%
Pusat Hemodialisis Zakat (Bukit Mertajam)	Yes	>=80%	Putrajaya Hospital	Yes	>=80%
Pusat Hemodialisis Zakat (Butterworth)	No	<80%	Putri Haemodialysis Centre (Ipoh)	No	<80%
Pusat Hemodialisis Zakat (Kepala Batas)	Yes	>=80%	PWRM (BM) Dialysis Centre	Yes	>=80%
Pusat Hemodialisis Zakat (P. Pinang)	No*	>=80%	Quality Dialysis (Batang Berjuntai)	No	<80%
Pusat Hemodialisis Bestari (Kepala Batas)	No	<80%	Quality Dialysis Care (Bangi)	Yes	>=80%
Pusat Hemodialisis Harmoni (Damansara)	Yes	>=80%	Quality Dialysis Care (Cheras)	Yes	>=80%
Pusat Hemodialisis Medipro Alliance	Yes	>=80%	Quality Dialysis Care (Gurun)	No	<80%
Pusat Hemodialisis Rotary Kulai	No*	>=80%	Quality Dialysis Care (Jerantut)	No	<80%
Pusat Hemodialisis Suria (Bentong)	Yes	>=80%	Quality Dialysis Care (Kangar)	Yes	>=80%
Pusat Hemodialisis Suria (Melaka)	Yes	>=80%	Quality Dialysis Care (Klang)	Yes	>=80%
Pusat Hemodialisis Suria Kuantan	No	<80%	Quality Dialysis Care (Kota Kinabalu)	Yes	>=80%
Pusat Hemodialisis Suria Temerloh	No	<80%	Quality Dialysis Care (Meru)	No*	>=80%
Pusat Hemodialisis Yayasan Veteran ATM (Batu Caves)	No	<80%	Quality Dialysis Care (Pendang)	Yes	>=80%
Pusat Jantung Hospital Umum Sarawak	No	<80%	Quality Dialysis Care (Sabak Bernam)	Yes	>=80%
Pusat Kelestarian Dialysis	Yes	>=80%	Quality Dialysis Care (Sg Besar)	Yes	>=80%
Pusat Kesihatan Jitra	Yes	>=80%	Quality Dialysis Care (Sg. Petani Utara)	Yes	>=80%
Pusat Kesihatan Universiti (UTHO)	No	<80%	Quality Dialysis Care (Sg. Siput)	Yes	>=80%
Pusat Pakar Dialisis Traktif (Besut)	No*	<80%	Quality Dialysis Care (Tanjung Karang)	Yes	>=80%
Pusat Pakar Dialisis Traktif (Kuala Pilah)	Yes	>=80%	Quality Dialysis Care (Wangsa Maju)	Yes	>=80%
Pusat Pakar Dialisis Traktif	Yes	>=80%	Queen Elizabeth Hospital	Yes	>=80%
Pusat Pakar Tawakkal	No	<80%	Raja Perempuan Zainab II Hospital	No*	<80%
Pusat Perbadanan Islam (Segamat)	Yes	>=80%	Raja Permaisuri Bainun Hospital	Yes	>=80%
Pusat Perubatan Dialisis (Bangi)	No	<80%	Ranau Hospital	Yes	>=80%
Pusat Perubatan Dialisis (Dengkil)	Yes	>=80%	Raub Dialysis Centre	Yes	>=80%
Pusat Perubatan Dialisis Semenyih	No	<80%	Raub Hospital	No	<80%
Pusat Perubatan Universiti Kebangsaan Malaysia	Yes	>=80%	Rawatan Dialisis Bukit Tinggi	Yes	>=80%
Pusat Rawatan Dialisis Ahmad Khalif	Yes	>=80%	Rejang Medical Centre	Yes	>=80%
Pusat Rawatan Dialisis Farah Mahami	Yes	>=80%	Renal Associates	No*	>=80%
Pusat Rawatan Dialisis Fazwinna	Yes	>=80%	Renal Care (Ipoh Specialist)	Yes	>=80%
Pusat Rawatan Dialisis Fitra (Kuantan)	No	<80%	Renal Care (Kedah)	Yes	>=80%
Pusat Rawatan Dialisis Fitra (Maran)	Yes	>=80%	Renal Care Dialysis Services	No*	<80%
Pusat Rawatan Dialisis Fitra (Seri Perdana)	Yes	>=80%	Renal Dialysis Centre	Yes	>=80%
Pusat Rawatan Dialisis Fitra Pekan	No	<80%	Renal Life Dialysis Centre	Yes	>=80%
Pusat Rawatan Dialisis Fungates Superflow-NKF	Yes	>=80%	Renal Link (Penang)	Yes	>=80%
Pusat Rawatan Dialisis Good Health-NKF (Kg Pandan)	No	<80%	Renal Team Dialysis Centre (Ara Damansara)	Yes	>=80%
Pusat Rawatan Dialisis Hidayah	Yes	>=80%	Renal Therapy Services	Yes	>=80%
Pusat Rawatan Dialisis Islah (Batu Caves)	Yes	>=80%	Renal-Link (Kelantan)	Yes	>=80%
Pusat Rawatan Dialisis Islah (BM)	Yes	>=80%	Rotary Club of Johor Bahru Haemodialysis Centre	No*	<80%
Pusat Rawatan Dialisis Islah (KL)	Yes	>=80%	S.P. Menon Dialysis Centre (Klang)	No	<80%
Pusat Rawatan Dialisis Islah (Kuala Terengganu)	Yes	>=80%	S.P. Menon Dialysis Centre (Kuala Lumpur)	No*	>=80%
Pusat Rawatan Dialisis Islah (Prima Sri Gombak)	Yes	>=80%	S.P. Menon Dialysis Centre (Petaling Jaya)	No*	>=80%
Pusat Rawatan Dialisis Islah (Selayang)	Yes	>=80%	Saratok Hospital	Yes	>=80%
Pusat Rawatan Dialisis Lions-NKF (Penang)	No	<80%	Sarawak General Hospital	Yes	>=80%
Pusat Rawatan Dialisis MUIS-NKF	Yes	>=80%	Sarikei Hospital	Yes	>=80%
Pusat Rawatan Dialisis Mukmin	Yes	>=80%	Sayang Dialysis (Seremban)	No	<80%
Pusat Rawatan Dialisis Nefro Utama (Masjid Tanah)	No	<80%	Seberang Jaya Hospital	Yes	>=80%
Pusat Rawatan Dialisis Nefro Utama (Puchong)	Yes	>=80%	Segamat Hospital	Yes	>=80%
Pusat Rawatan Dialisis Nefro Utama (Setapak)	Yes	>=80%	Selama Hospital	Yes	>=80%
Pusat Rawatan Dialisis Puteri Zulaikha	Yes	>=80%	Selayang Hospital (Paed)	Yes	>=80%
Pusat Rawatan Dialisis Tun Abdul Razak-NKF Kuantan	Yes	>=80%	Selayang Hospital	Yes	>=80%
Pusat Rawatan Fitra (Muadzam)	Yes	>=80%	Semporna Hospital	Yes	>=80%
Pusat Rawatan Haemodialisis Wan Nong	Yes	>=80%	Sentosa Medical Centre	No#	<80%
Pusat Rawatan Hemodialisis Felina	Yes	>=80%	Serdang Hospital	No*	>=80%
Pusat Rawatan Hemodialisis Tunku Sarina	Yes	>=80%	Seremban Specialist Hospital	Yes	>=80%
Pusat Rawatan Perbadanan Islam (Kota Tinggi)	Yes	>=80%	Seri Benut Dialysis	Yes	>=80%
			Seri Manjung Hospital	Yes	>=80%

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PARTICIPATING HAEMODIALYSIS CENTRES 2015 (con't)

Haemodialysis Centre	CC#	AR	Haemodialysis Centre	CC#	AR
Serian Hospital	Yes	>=80%	Tan Sri Muhyiddin Charity Dialysis Centre	No	<80%
Setiu Hospital	Yes	>=80%	Tanah Merah Hospital	Yes	>=80%
Sg Siput Hospital	Yes	>=80%	Tangkak Hospital	Yes	>=80%
Sibu Hospital	Yes	>=80%	Tangkak Lions Renal Centre	Yes	>=80%
Sibu Kidney Foundation	Yes	>=80%	Tanjung Karang Hospital	Yes	>=80%
Sik Hospital	Yes	>=80%	Tapah Hospital	No*	>=80%
Sime Darby Medical Centre Parkcity	Yes	>=80%	Tawau Hospital	Yes	>=80%
Sime Darby Medical Centre Subang Jaya	No	<80%	Teluk Intan Hospital	Yes	>=80%
Simunjan Hospital	Yes	>=80%	Temenggong Seri Maharaja Tun Ibrahim Hospital	Yes	>=80%
Sinar Haemodialysis (Batu Pahat) Sdn Bhd	Yes	>=80%	Tenang Haemodialysis Centre	Yes	>=80%
Sinar Haemodialysis (Cawangan Batu Pahat)	Yes	>=80%	Tenang Haemodialysis Jasin	Yes	>=80%
Sinar Hemodialisis (Melaka)	Yes	>=80%	Tengku Ampuan Afzan Hospital (Paed)	No*	>=80%
Sipitang Hospital	No	<80%	Tengku Ampuan Afzan Hospital	Yes	>=80%
SJ Dialysis Centre (Bidor)	Yes	>=80%	Tengku Ampuan Jemaah Hospital	Yes	>=80%
SJ Dialysis Centre (Ipoh)	Yes	>=80%	Tengku Ampuan Rahimah Hospital	Yes	>=80%
SJ Dialysis Centre (Seberang Jaya)	Yes	>=80%	Tengku Anis Hospital	No*	>=80%
SJAMK Hemodialisis	Yes	>=80%	Tenom Hospital	Yes	>=80%
SJAM-KPS Haemodialysis Centre 1 (Raja Muda Musa)	Yes	>=80%	The Kidney Dialysis Centre (1)	No*	>=80%
SJAM-KPS Haemodialysis Centre 12 (Balakong)	No	<80%	The Nayang-NKF Dialysis Centre	Yes	>=80%
SJAM-KPS Haemodialysis Centre 2 (Klang)	Yes	>=80%	The Penang Community HD Society	Yes	>=80%
SJAM-KPS Haemodialysis Centre 3 (Banting)	Yes	>=80%	Timberland Medical Centre	Yes	>=80%
SJAM-KPS Haemodialysis Centre 5 (Rawang)	Yes	>=80%	Total Kidney Care Haemodialysis	Yes	>=80%
SJAM-KPS Haemodialysis Centre 6 (Kuala Selangor)	Yes	>=80%	Tropicana Medical Centre	No#	<80%
SJAM-KPS Haemodialysis Centre 8 (Sibu)	Yes	>=80%	TSC Renal Care	No*	>=80%
SJAM-KPS Pusat Hemodialisis Centre 10 (Bintulu)	Yes	>=80%	Tuanku Ampuan Najihah Hospital	Yes	>=80%
SJAM-KPS Pusat Hemodialisis Centre 15 (Ipoh)	Yes	>=80%	Tuanku Fauziah Hospital	Yes	>=80%
SJAM-KPS Pusat Hemodialisis Pandan (Station17)	No*	>=80%	Tuanku Ja'afar Hospital (Paed)	No*	>=80%
SJAM-KPS Pusat Hemodialisis Serdang Raya (Station14)	Yes	>=80%	Tuanku Ja'afar Hospital	Yes	>=80%
SJAM-KPS Pusat Hemodialisis Tasik Puteri	No	<80%	Tuaran Hospital	Yes	>=80%
Slim River Hospital (Tanjong Malim)	No*	>=80%	Tulips Dialysis Centre	Yes	>=80%
Smartcare Dialysis Centre (Subang Jaya)	Yes	>=80%	Tumpat Hospital	Yes	>=80%
Smartcare Dialysis Clinic (Cheras)	Yes	>=80%	Tung Shin Hospital & Yayasan Nanyang Press	Yes	>=80%
Sri Aman Hospital	Yes	>=80%	Tung Shin Hospital	Yes	>=80%
Sri Kota Medical Centre	Yes	>=80%	Unit Hemodialisis Komuniti Kodiang	Yes	>=80%
Subang Dialysis Centre	Yes	>=80%	Universiti Kebangsaan Malaysia Bangi	Yes	>=80%
Sultan Abdul Halim Hospital	Yes	>=80%	Universiti Sains Malaysia Hospital	No	<80%
Sultan Haji Ahmad Shah Hospital	No*	>=80%	University Malaya Medical Centre	No	<80%
Sultan Ismail Hospital (Paed)	Yes	>=80%	University Malaya Specialist Centre	No	<80%
Sultan Ismail Hospital	Yes	>=80%	Woh Peng Cheang Seah	No*	<80%
Sultanah Aminah Hospital	Yes	>=80%	Yakin Haemodialysis	Yes	>=80%
Sultanah Bahiyah Hospital	Yes	>=80%	Yakin Jaya Haemodialysis	No	<80%
Sultanah Nur Zahirah Hospital	No	<80%	Yan Hospital	Yes	>=80%
Sungai Bakap Hospital	Yes	>=80%	Yayasan Dialysis Pendidikan Akhlak Perak-NKF Ipoh	Yes	>=80%
Sungai Buloh Hospital	Yes	>=80%	Yayasan Kebajikan SSL Puchong	No*	>=80%
Sunway Medical Centre (2)	Yes	>=80%	Yayasan Kebajikan SSL	Yes	>=80%
Sunway Medical Centre	Yes	>=80%	Yayasan Rotary Kluang	Yes	>=80%
Superkids Trinity-NKF Dialysis Centre	Yes	>=80%	YKN Dialisis Kota Bharu	Yes	>=80%
Syukur Dialisis (Petaling Jaya)	No	<80%	YKN Dialisis Kuala Pilah	Yes	>=80%
Syukur Dialisis (Puchong)	No	<80%	YKN Dialisis Kuala Terengganu	Yes	>=80%
Syukur Dialisis (Shah Alam)	Yes	>=80%	YKN Dialisis Rompin	No	<80%
Taiping Hospital	Yes	>=80%	Zaharah Dialysis Center (Jitra)	No*	<80%
Taiping Medical Centre	No*	<80%	Zaharah Dialysis Centre (Pokok Sena)	Yes	>=80%
Tambunan Hospital	No*	>=80%	Zaharah Dialysis Center (Kangar)	Yes	>=80%
Tampin Hospital	Yes	>=80%	Zhi En Dialysis Centre	Yes	>=80%

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PARTICIPATING PD CENTRES 2015

Peritoneal Dialysis Centre	CC#	AR	Peritoneal Dialysis Centre	CC#	AR
96 Hospital Angkatan Tentera (Lumut)	Yes	>=80%	Raja Perempuan Zainab II Hospital	Yes	>=80%
Bentong Hospital	Yes	>=80%	Raja Permaisuri Bainun Hospital	Yes	>=80%
Besut Hospital	No*	<80%	Sarawak General Hospital	Yes	>=80%
Duchess of Kent Hospital	Yes	>=80%	Selayang Hospital (Paed)	Yes	>=80%
Dungun Hospital	No*	<80%	Selayang Hospital	Yes	>=80%
Hospital Pakar Sultanah Fatimah (Muar)	Yes	>=80%	Serdang Hospital	Yes	>=80%
Hulu Terengganu Hospital	Yes	>=80%	Setiu Hospital	Yes	>=80%
Island Hospital	Yes	>=80%	Sultan Haji Ahmad Shah Hospital	No*	<80%
Kemaman Hospital	Yes	>=80%	Sultan Ismail Hospital (Paed)	Yes	>=80%
Kuala Lumpur Hospital (Paed)	Yes	>=80%	Sultanah Aminah Hospital	Yes	>=80%
Kuala Lumpur Hospital	Yes	>=80%	Sultanah Bahiyah Hospital	Yes	>=80%
Likas Hospital (Paed)	No*	<80%	Sultanah Nur Zahirah Hospital	No*	<80%
Melaka Hospital	Yes	>=80%	Taiping Hospital	Yes	>=80%
Miri Hospital	Yes	>=80%	Tawau Hospital	Yes	>=80%
Normah Medical Specialist Centre	Yes	>=80%	Tengku Ampuan Afzan Hospital (Paed)	No*	>=80%
Pantai Hospital Batu Pahat	Yes	>=80%	Tengku Ampuan Afzan Hospital	Yes	>=80%
Prince Court Medical Centre	Yes	>=80%	Tengku Ampuan Rahimah Hospital	Yes	>=80%
Pulau Pinang Hospital (Paed)	Yes	>=80%	TuanKu Ja'afar Hospital (Paed)	Yes	>=80%
Pulau Pinang Hospital	Yes	>=80%	TuanKu Ja'afar Hospital	Yes	>=80%
Pusat Perubatan Universiti Kebangsaan Malaysia	Yes	>=80%	Universiti Sains Malaysia Hospital	No*	<80%
Queen Elizabeth Hospital	Yes	>=80%	University Malaya Medical Centre	No*	<80%

* = No survey

PARTICIPATING RENAL TRANSPLANT FOLLOW-UP CENTRES 2015

Renal Transplant Follow-Up Centre	AR	Renal Transplant Follow-Up Centre	AR
Assunta Hospital	Yes	Raja Perempuan Zainab II Hospital	Yes
Bintulu Hospital	Yes	Raja Permaisuri Bainun Hospital	Yes
Duchess of Kent Hospital	Yes	Renal Care (Ipoh Specialist)	Yes
Dungun Hospital	Yes	Sarawak General Hospital	Yes
Fan Medical Renal Clinic	No	Segamat Hospital	Yes
Hospital Enche' Besar Hajjah Khalsom	Yes	Selayang Hospital	Yes
Hospital Sultanah Nora Ismail	Yes	Serdang Hospital	Yes
Hospital Wanita Dan Kanak-Kanak Sabah (Paed)	Non*	Sibu Hospital	Yes
Kemaman Hospital	Yes	Sime Darby Medical Centre Subang Jaya	Non
Klinik Dr Choo & Liew	Yes	Sri Kota Medical Centre	No
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KPJ Sabah Specialist Hospital	Non	Sultan Ismail Hospital (Paed)	Yes
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Kuala Lumpur Hospital (Paed)	Yes	Sultanah Aminah Hospital	Yes
Kuala Lumpur Hospital	Yes	Sultanah Bahiyah Hospital	Yes
Labuan Hospital	Yes	Sultanah Nur Zahirah Hospital	Yes
Melaka Hospital	Yes	Sunway Medical Centre	Non*
Mersing Hospital	Yes	Taiping Hospital	Yes
Miri Hospital	Yes	Tan Medical Renal Clinic	Non
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Pantai Air Keroh Hospital	Non	Tg. Ampuan Afzan Hospital	Yes
Pontian Hospital	Yes	Tg. Ampuan Rahimah Hospital	Yes
Prince Court Medical Centre	Yes	Timberland Medical Centre	Non*
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FOREWORD

2017 is a watershed year for National Renal Registry as we cease manual data collection and migrate to an electronic on-line version. The plan, mooted several years ago, faced several challenges including financial, administrative and logistic factors, which delay the implementation. While providing cost saving benefits, it is hoped that the new system will improve efficiency in data submission and compliance rate thus provide a more accurate and timely report related to the dialysis and kidney transplant activities in Malaysia.

Looking specifically at the 2015 data, ongoing concerns remain with regard to the ever increasing number of incident and prevalent patients on dialysis therapy. This is contributed by the actual increase in new patients with end stage renal disease on dialysis together with the dismally low kidney transplantation rate due to poor overall organ donation rates from live and deceased organ donor in the country. More than 95% of prevalent patients on RRT in Malaysia are on dialysis therapy, compared to 47.1 % in the UK and 54.4% in Australia, while those surviving on kidney transplants constitute 4.7%, 52.9% and 45.6% in Malaysia, UK and Australia respectively. Agencies and personnel tasked with the responsibility to achieve a higher and meaningful organ donation rate and organ transplantation rate in the country, should rise to the challenges in response to this report.

The modest increase of incidence rate of Peritoneal Dialysis (PD) patients to 14% is worthy of note. Hopefully, this positive momentum on PD penetration will continue as the country, especially the regulators, grapple with various technical and administrative issues involved in the hemodialysis provision in the private sector.

As we encounter mounting challenges in various areas, the commitments and perseverance of a core group of people assured the continued production of the annual NRR report to fulfill the needs of various stakeholders, interested parties and individuals. The Editors, Dr Goh Bak Leong and Dr Wong Hin Seng, assisted by various chapter expert panels and biostatistician were all important to get this report out as scheduled. The whole hearted dedication of the registry manager, SN (rtd) Lee Day Guat requires a special mention. The generous unrestricted grant provided by National Kidney Foundation, Malaysia and several corporate sponsors are duly acknowledged. They are critical in ensuring that all the financial needs of the registry's operation are securely covered. We hope all the data providers will continue to submit complete and quality data as this becomes a basis for us to continue producing a credible, complete and useful report for many years to come.

With highest regards to everyone.

Datuk Ghazali Ahmad
Chairman
Advisory Committee
National Renal Registry

CONTENTS

Acknowledgement	iii
NRR Advisory Board Members	iv
About The Malaysian Dialysis and Transplant Registry (MDTR)	v
Participating Haemodialysis Centres	viii - xiii
Participating Chronic Peritoneal Dialysis Centres	xiv
Participating Transplant Follow-up Centres	xiv
Contributing Authors	xv
Foreword	xvi
Chapters & Sections	xvii - xix
List of Tables	xx
List of Figures	xxviii
Executive Summary	xxv
Abbreviation	xxvii
Chapter 1 ALL RENAL REPLACEMENT THERAPY IN MALAYSIA	1
SECTION 1.1 STOCK AND FLOW	2
SECTION 1.2 TREATMENT PROVISION RATE	3
Chapter 2 DIALYSIS IN MALAYSIA	5
SECTION 2.1 PROVISION OF DIALYSIS IN MALAYSIA (registry report)	6
2.1.1 DIALYSIS TREATMENT PROVISION	6
2.1.2 GEOGRAPHIC DISTRIBUTION	7
2.1.3 GENDER DISTRIBUTION	7
2.1.4 AGE DISTRIBUTION	8
2.1.5 METHOD AND LOCATION OF DIALYSIS	10
2.1.6 FUNDING FOR DIALYSIS TREATMENT	10
2.1.7 DISTRIBUTION OF DIALYSIS PATIENTS BY SECTOR	11
2.1.8 PRIMARY RENAL DISEASE	12
SECTION 2.2 DIALYSIS PROVISION IN MALAYSIA (Centre survey report)	13
2.2.1 GROWTH IN DIALYSIS IN MALAYSIA BY STATE AND SECTOR	13
2.2.9 MANPOWER IN DIALYSIS CENTRES	27
Chapter 3 DEATH AND SURVIVAL ON DIALYSIS	31
SECTION 3.1 DEATH ON DIALYSIS	32
SECTION 3.2 PATIENT SURVIVAL ON DIALYSIS	33
3.2.1 PATIENT SURVIVAL BY TYPE OF DIALYSIS MODALITY	33
3.2.2 PATIENT SURVIVAL BY YEAR OF STARTING DIALYSIS	35
3.2.3 PATIENT SURVIVAL BY AGE AT STARTING DIALYSIS	36
3.2.4 PATIENT SURVIVAL BY DIABETIC STATUS	36
SECTION 3.3 SURVIVAL OF INCIDENCE PATIENTS BY CENTRE	38
3.3.1 SURVIVAL OF INCIDENT HAEMODIALYSIS PATIENTS 2006-2014 BY CENTRE	38
3.3.2 SURVIVAL OF INCIDENCE PD PATIENTS BY CENTRE	40
3.4.1 ADJUSTED HAZARD RATIO FOR MORTALITY OF DIALYSIS PATIENTS	41
3.4.2 ADJUSTED HAZARD RATIO FOR MORTALITY OF HAEMODIALYSIS PATIENTS	44
3.4.3 ADJUSTED HAZARD RATIO FOR MORTALITY OF PERITONEAL DIALYSIS PATIENTS	46
3.4.4 RISK ADJUSTED MORTALITY RATE BY HAEMODIALYSIS CENTRES	48
3.4.5 RISK ADJUSTED MORTALITY RATE BY PD CENTRES	48

CONTENTS *(con't)*

Chapter 4	QUALITY OF LIFE AND REHABILITATION OUTCOMES OF PATIENTS ON DIALYSIS	49
SECTION A	QoL INDEX SCORE	50
SECTION B	WORK RELATED REHABILITATION	53
Chapter 5	PAEDIATRIC RENAL REPLACEMENT THERAPY	55
SECTION A	RRT PROVISION FOR PAEDIATRIC PATIENTS	56
SECTION B	DISTRIBUTION OF PAEDIATRIC DIALYSIS PATIENTS	57
SECTION C	PRIMARY RENAL DISEASE	60
SECTION D	TYPES OF RENAL TRANSPLANTATION	60
SECTION E	SURVIVAL ANALYSIS	61
SECTION F	HAEMODIALYSIS PRACTICE	64
SECTION G	ANAEMIA TREATMENT	65
Chapter 6	MANAGEMENT OF ANAEMIA IN PATIENTS ON DIALYSIS	67
SECTION 6.1	TREATMENT FOR ANAEMIA IN PATIENTS ON DIALYSIS	68
SECTION 6.2	IRON STATUS ON DIALYSIS	72
SECTION 6.3	HAEMOGLOBIN OUTCOMES ON DIALYSIS	80
Chapter 7	NUTRITIONAL STATUS ON DIALYSIS	87
SECTION 7.1	SERUM ALBUMIN LEVELS ON DIALYSIS	88
SECTION 7.2	BODY MASS INDEX (BMI) ON DIALYSIS	90
SECTION 7.3	NUTRITIONAL PARAMETERS	95
Chapter 8	BLOOD PRESSURE CONTROL AND DYSLIPIDAEMIA IN PATIENTS ON DIALYSIS	99
8.1	BLOOD PRESSURE CONTROL ON DIALYSIS	100
8.2	DYSLIPIDAEMIA IN DIALYSIS PATIENTS	108
Chapter 9	CHRONIC KIDNEY DISEASE - MINERAL AND BONE DISORDER	121
SECTION 9.1	TREATMENT OF HYPERPHOSPHATAEMIA	122
SECTION 9.2	SERUM CALCIUM AND PHOSPHATE CONTROL	123
SECTION 9.3	SERUM PARATHYROID HORMONE CONTROL	134
Chapter 10	HEPATITIS ON DIALYSIS	141
SECTION A	PREVALENCE	142
SECTION B	CENTER VARIATION	143
Chapter 11	HAEMODIALYSIS PRACTICES	147
SECTION 11.1	VASCULAR ACCESS AND ITS COMPLICATIONS	148
SECTION 11.2	HD PRESCRIPTION	150
SECTION 11.3	TECHNIQUE SURVIVAL ON DIALYSIS	161
Chapter 12	PERITONEAL DIALYSIS	167
SECTION 12.1	MODALITIES AND PRESCRIPTION OF PD (TABLES 12.1.1 -12.1.4)	168
SECTION 12.2	ACHIEVEMENT OF SOLUTE CLEARANCE AND PERITONEAL TRANSPORT	171

CONTENTS *(con't)*

SECTION 12.3	TECHNIQUE SURVIVAL ON PD	174
SECTION 12.4	ERITONITIS	185
Chapter 13	RENAL TRANSPLANTATION	191
SECTION 13.1	STOCK AND FLOW	192
SECTION 13.2	RECIPIENTS' CHARACTERISTICS	195
SECTION 13.3	TRANSPLANT PRACTICES	196
13.3.1	TYPE OF RENAL TRANSPLANTATION	196
13.3.2	BIOCHEMICAL DATA	197
13.3.3	IMMUNOSUPPRESSION MEDICATIONS	198
13.3.4	NON IMMUNOSUPPRESSION MEDICATIONS	199
SECTION 13.4	TRANSPLANT OUTCOMES	200
13.4.1	POST-TRANSPLANT COMPLICATIONS	200
13.4.2	DEATHS AND GRAFT LOSS	201
SECTION 13.5	PATIENT AND GRAFT SURVIVAL	204
13.5.1	PATIENT SURVIVAL	204
13.5.2	GRAFT SURVIVAL	206
13.5.3	PATIENT SURVIVAL BY TYPE OF TRANSPLANT	208
13.5.4	GRAFT SURVIVAL ACCORDING TO TYPE OF TRANSPLANT	209
13.5.5	OUTCOME OF LIVING RELATED RENAL TRANSPLANTATION	209
13.5.6	OUTCOME OF COMMERCIAL CADAVERIC TRANSPLANTATION	210
SECTION 13.6	CARDIOVASCULAR RISK IN RENAL TRANSPLANT RECIPIENTS	212
13.6.1	RISK FACTORS FOR ISCHAEMIC HEART DISEASE (IHD)	212
13.6.2	BLOOD PRESSURE CLASSIFICATION ACCORDING TO JNC VI CRITERIA, 2010-2014	214
13.6.3	LEVEL OF ALLOGRAFT FUNCTION	215
13.6.4	BODY MASS INDEX	216
13.6.5	LDL CHOLESTEROL	216
13.6.6	BLOOD PRESSURE CONTROL	218
SECTION 13.7	QOL INDEX SCORE IN RENAL TRANSPLANT RECIPIENTS	219
APPENDIX I	DATA MANAGEMENT	I - IV
APPENDIX II	ANALYSIS SETS, STATISTICAL METHODS AND DEFINITIONS	V - X

LIST OF TABLES

Table 1.1:	Stock and flow of RRT, Malaysia 2005-2014	2
Table 1.2:	New dialysis acceptance rate and new transplant rate per million population, 2005-2014	3
Table 1.3:	RRT prevalence rate per million population, 2006-2015	3
Table 2.1.1(a):	Stock and flow-Haemodialysis Patients 2006-2015	6
Table 2.1.1(b):	Stock and flow-Chronic PD Patients 2006-2015	6
Table 2.1.1(c):	Haemodialysis Treatment Rate per million population 2006-2015	6
Table 2.1.1(d):	Chronic PD Treatment Rate per million population 2006-2015	6
Table 2.1.2:	Dialysis Treatment Rate by state, per million population 2006-2015	7
Table 2.1.3(a):	Dialysis Treatment Rate by Gender, per million male or female population 2006-2015	7
Table 2.1.3(b):	Gender Distribution of Dialysis Patients 2005-2014	8
Table 2.1.4(a):	Dialysis Treatment Rate by Age Group, per million age group population 2006-2015	8
Table 2.1.4(b):	Percentage Age Distribution of Dialysis Patients 2006-2015	9
Table 2.1.5:	Method and Location of Dialysis Patients 2006-2015	10
Table 2.1.6:	Funding for Dialysis Treatment 2006-2015	11
Table 2.1.7:	Distribution of Dialysis Patients by Sector 2006-2015	11
Table 2.1.8:	Primary Renal Diseases 2006-2015	12
Table 2.2.1:	Number and density of Dialysis Centres in Malaysia by State and Sector, Year 2010 to 2015	14
Table 2.2.2:	Number and density of HD centres in Malaysia by State and Sector, Year 2010 to 2015	15
Table 2.2.3:	Number and density of PD centres in Malaysia by State and Sector, Year 2010 to 2015	17
Table 2.2.4:	Number and density of HD machines in Malaysia by State and Sector, 2010-2015	18
Table 2.2.5:	Number and Prevalence Rate of Dialysis Patients (HD & PD) in Malaysia by State and Sector, 2010-2015	20
Table 2.2.6:	Number and Prevalence Rate of Hemodialysis Patients in Malaysia by State and Sector, 2010-2015	22
Table 2.2.7:	Number and Prevalence Rate of PD Patients in Malaysia by State and Sector, 2010-2015	23
Table 2.2.8:	HD Capacity to Patient Ratio among HD Centres in Malaysia by State and Sector, 2010-2015	25
Table 2.2.9:	Number & density of Certified Dialysis Nurses/ Medical technicians in Malaysia by State and Sector, 2010-2015	28
Table 3.1.1:	Deaths on dialysis 2006-2015	32
Table 3.1.2:	Causes of death on dialysis 2006-2015	33
Table 3.2.1:	Patient survival by dialysis modality analysis	33
Table 3.2.2:	Unadjusted patient survival by year of entry, 2006-2015	35
Table 3.2.3:	Unadjusted patient survival by 4 Era, 1996-2015	36
Table 3.2.4:	Unadjusted patient survival by age	37
Table 3.2.5:	Unadjusted patient survival by diabetes mellitus status	38
Table 3.4.1:	Adjusted hazard ratio for mortality of dialysis patients uncensored for change of modality (2006-2015)	42
Table 3.4.2:	Adjusted hazard ratio for mortality of HD patients uncensored for change of modality (2006-2015 cohort)	44
Table 3.4.3:	Adjusted hazard ratio for mortality of PD patients uncensored for change of modality (2005-2014 cohort)	46

LIST OF TABLES *(con't)*

Table 4.1:	Cumulative distribution of QoL-Index score in relation to dialysis modality, all dialysis patients 2006-2015	50
Table 4.2:	Cumulative distribution of QoL-Index score in relation to DM, all dialysis patients 2006-2015	50
Table 4.3:	Cumulative distribution of QoL-index score in relation to gender, all dialysis patients 2006-2015	51
Table 4.4:	Cumulative distribution of QoL-index score in relation to age, all dialysis patients 2006-2015	51
Table 4.5:	Cumulative distribution of QoL-Index score in relation to year of entry, HD patients 2006-2015	52
Table 4.6:	Cumulative distribution of QoL-Index score in relation to year of entry, PD patients 2006-2015	52
Table 4.7:	Work related rehabilitation in relation to modality, dialysis patients, 2006-2015	53
Table 4.8:	Work related rehabilitation in relation to year of entry, HD patients 2006-2015	53
Table 4.9:	Work related rehabilitation in relation to year of entry, PD patients 2006-2015	53
Table 5.1:	Stock and flow of Paediatric Renal Replacement Therapy (RRT), 2006-2015	56
Table 5.2:	Paediatric dialysis and transplant rates per million age related population, 2006-2015	57
Table 5.3(a):	Dialysis treatment rate by state, per million state age related population, 2006-2015	57
Table 5.3(b):	New dialysis patients by state, 2006-2015	58
Table 5.4:	Number of new dialysis and transplant patients by gender, 2006-2015	58
Table 5.5:	New RRT rate, per million age related population by age group, 2006-2015	59
Table 5.6:	New dialysis by treatment modality, 2006-2015	60
Table 5.7:	New dialysis by sector, 2006-2015	60
Table 5.8:	Primary renal disease by sex among new dialysis patients, 2006-2015	61
Table 5.9:	Types of renal transplantation, 2006-2015	61
Table 5.10(a):	Patient survival by dialysis modality analysis (not censored with change of modality), 2006-2015	62
Table 5.10(b):	Patient survival by dialysis modality analysis (censored with change of modality), 2006-2015	62
Table 5.11:	Causes of death in dialysis patients, 2006-2015	62
Table 5.12:	Dialysis technique survival by modality, 2006-2015	62
Table 5.13:	Reasons for drop-out from PD program, 2006-2015	63
Table 5.14:	Transplant graft survival, 2006-2015	63
Table 5.15:	Causes of graft loss, 2006-2015	64
Table 5.16:	Vascular access on haemodialysis, 2006-2015	64
Table 5.17(a):	Distribution of prescribed Kt/V, HD patients 2006-2015	64
Table 5.17(b):	Distribution of delivered Kt/V, HD patients 2006-2015	65
Table 5.17(c):	Distribution of URR, HD patients 2006-2015	65
Table 5.18:	Treatment for anaemia, HD patients 2006-2015	65
Table 5.19:	Distribution of transferrin saturation on Erythropoietin, HD patients 2006-2015	66
Table 5.20:	Distribution of transferrin saturation on Erythropoietin, PD patients 2006-2015	66
Table 5.21:	Distribution of ESA dose (u/kg/wk), 2006-2015	66
Table 6.1.1:	Treatment for anaemia, HD patients 2006-2015	68
Table 6.1.2:	Treatment for anaemia, PD patients 2006-2015	68
Table 6.1.3:	Variation in Erythropoiesis-Stimulating Agents (ESAs) utilization (% patients) among HD centres, 2006-2015	69

LIST OF TABLES *(con't)*

Table 6.1.4:	Variation in ESAs utilization (% patients) among PD centres, 2006-2015	69
Table 6.1.5:	Variation in mean weekly ESAs dose (u/week) among HD centres, 2006-2015	70
Table 6.1.6:	Variation in mean weekly ESAs dose (u/week) among PD centres, 2006-2015	70
Table 6.1.7:	Variation in use of blood transfusion (% patients) among HD centres, 2006-2015	71
Table 6.1.8:	Variation in use of blood transfusion (% patients) among PD centres, 2006-2015	71
Table 6.2.1:	Distribution of serum ferritin without ESAs, HD patients 2006-2015	72
Table 6.2.2:	Distribution of serum ferritin without ESAs, PD patients 2006-2015	73
Table 6.2.3:	Distribution of serum ferritin on ESAs, HD patients 2006-2015	73
Table 6.2.4:	Distribution of serum ferritin on ESAs, PD patients 2006-2015	74
Table 6.2.5:	Distribution of transferrin saturation without ESAs, HD patients, 2006-2015	74
Table 6.2.6:	Distribution of transferrin saturation without ESAs, PD patients, 2006-2015	75
Table 6.2.7:	Distribution of transferrin saturation on ESAs, HD patients, 2006-2015	75
Table 6.2.8:	Distribution of transferrin saturation on ESAs, PD patients, 2006-2015	76
Table 6.2.9(a):	Variation in Medium serum ferritin among patients on ESAs, HD centres, 2006-2015	76
Table 6.2.9(b):	Proportion of patients on ESAs with serum ferritin ≥ 100 ng/ml, HD centres	77
Table 6.2.9(c):	Median transferrin saturation among patients on ESAs, HD centres	77
Table 6.2.9(d):	Proportion of patients on ESAs with transferrin saturation $\geq 20\%$, HD centres	78
Table 6.2.10(a):	Variation in medium serum ferritin among patients on ESAs, PD centres 2006-2015	78
Table 6.2.10(b):	Proportion of patients on ESAs with serum ferritin ≥ 100 ng/ml, PD centres	79
Table 6.2.10(c):	Median transferrin saturation among patients on ESAs, PD centres	79
Table 6.2.10(d):	Proportion of patients on ESAs with transferrin saturation $\geq 20\%$, PD centres	80
Table 6.3.1:	Distribution of haemoglobin concentration without ESAs, HD patients 2006-2015	80
Table 6.3.2:	Distribution of haemoglobin concentration without ESAs, PD patients 2006-2015	81
Table 6.3.3(a):	Distribution of haemoglobin concentration on ESAs, diabetes HD patients 2006-2015	81
Table 6.3.3(b):	Distribution of haemoglobin concentration on ESAs, non-diabetes HD patients 2006-2015	82
Table 6.3.4(a):	Distribution of haemoglobin concentration on ESAs, diabetes PD patients 2006-2015	82
Table 6.3.4(b):	Distribution of haemoglobin concentration on ESAs, non-diabetes PD patients 2006-2015	83
Table 6.3.5(a):	Variation in median haemoglobin level among patients on ESAs, HD centres 2006-2015	84
Table 6.3.5(b):	Proportion of patients on ESAs with haemoglobin level > 10 g/dL, HD centres	84
Table 6.3.6(a):	Variation in Median haemoglobin level among patients on ESAs, PD centres 2006-2015	85
Table 6.3.6(b):	Proportion of patients on ESAs with haemoglobin level > 10 g/dL, PD centres	85
Table 7.1.1:	Distribution of serum albumin, HD patients, 2006-2015	88
Table 7.1.2:	Distribution of serum albumin, PD patients, 2006-2015	88
Table 7.1.3:	Variation in proportion of patients with serum albumin ≥ 40 g/L among HD centres 2006-2015	89
Table 7.1.4:	Variation in proportion of patients with serum albumin ≥ 40 g/L among PD centres 2006-2015	90
Table 7.2.1:	Distribution of BMI, HD patients, 2006-2015	91
Table 7.2.2:	Distribution of BMI, PD patients 2006-2015	92
Table 7.2.3:	Variation in proportion of patients with BMI ≥ 18.5 kg/m ² among HD centres 2006-2015	92
Table 7.2.4:	Variation in proportion of patients with BMI ≥ 18.5 kg/m ² among PD centres 2006-2015	93
Table 7.2.5:	Variation in proportion of patients with BMI ≥ 18.5 kg/m ² and serum albumin ≥ 40 g/L among HD centres 2006-2015	94

LIST OF TABLES *(con't)*

Table 7.2.6:	Variation in proportion of patients with BMI ≥ 18.5 kg/m ² and serum albumin ≥ 40 g/dL among PD centres 2006-2015	95
Table 7.3.1:	Nutritional parameters between HD and PD patients, 2015	95
Table 7.3.2(a):	Nutritional parameters between diabetic and non diabetic HD patients, 2015	96
Table 7.3.2(b):	Nutritional parameters between diabetic and non diabetic PD patients, 2015	96
Table 7.3.3(a):	Distribution of serum albumin and BMI by duration of dialysis among HD patients, 2006-2015	96
Table 7.3.3(b):	Distribution of serum albumin and BMI by duration of dialysis among PD patients, 2006-2015	97
Table 8.1.1:	Distribution of pre dialysis systolic blood pressure, HD patients 2006-2015	100
Table 8.1.2:	Distribution of pre dialysis systolic blood pressure, PD patients 2006-2015	101
Table 8.1.3:	Distribution of pre dialysis diastolic blood pressure, HD patients 2006-2015	102
Table 8.1.4:	Distribution of pre dialysis diastolic blood pressure, PD patients 2006-2015	102
Table 8.1.5(a):	Proportion of HD patients with pre dialysis blood pressure $< 140/90$ mmHg, HD centres	103
Table 8.1.5(b):	Median systolic blood pressure among HD patients, HD centres	104
Table 8.1.5(c):	Median diastolic blood pressure among HD patients, HD centres	104
Table 8.1.6(a):	Proportion of PD patients with pre dialysis blood pressure $< 140/90$ mmHg, PD centres 2006-2015	105
Table 8.1.6(b):	Median systolic blood pressure among PD patients, PD centres 2006-2015	106
Table 8.1.6(c):	Median diastolic blood pressure among PD patients, PD centres 2006-2015	106
Table 8.1.7(a):	Correlation of blood pressure profile and death, cardiovascular death and ischaemic heart disease, dialysis patients 2006-2015	107
Table 8.1.7(b):	Hazard ratio for death in each of the blood pressure categories, 2006-2015	108
Table 8.2.1:	Distribution of serum cholesterol, HD patients 2006-2015	109
Table 8.2.2:	Distribution of serum cholesterol, PD patients 2006-2015	110
Table 8.2.3:	Distribution of serum triglyceride, HD patients 2006-2015	111
Table 8.2.4:	Distribution of serum triglyceride, PD patients 2006-2015	112
Table 8.2.5(a):	Median serum cholesterol level among HD patients, HD centres 2006-2015	112
Table 8.2.5(b):	Proportion of HD patients with serum cholesterol < 5.3 mmol/L, HD centres 2006-2015	113
Table 8.2.5(c):	Median serum triglyceride level among HD patients, HD centres 2006-2015	114
Table 8.2.5(d):	Proportion of HD patients with serum triglyceride < 2.1 mmol/L, HD centres	114
Table 8.2.6(a):	Median serum cholesterol level among PD patients, PD centres 2006-2015	115
Table 8.2.6(b):	Proportion of PD patients with serum cholesterol < 5.3 mmol/L, PD centres 2006-2015	116
Table 8.2.6(c):	Median serum triglyceride level among PD patients, PD centres 2006-2015	116
Table 8.2.6(d):	Proportion of PD patients with serum triglyceride < 2.1 mmol/L, PD centres 2006-2015	117
Table 8.2.7(a):	Relationship of different categories of cholesterol levels with death, dialysis patients 2006-2015	118
Table 8.2.7(b):	Hazard ratio for death in each of the total cholesterol categories, dialysis patient 2006-2015	119
Table 9.1.1:	Phosphate Binder in HD patients, 2006-2015	122
Table 9.1.2:	Phosphate Binder in PD patients, 2006-2015	122
Table 9.1.3:	Phosphate Binders by Sector in HD patients	123
Table 9.2.1:	Distribution of corrected serum calcium, HD patients 2006-2015	124

LIST OF TABLES *(con't)*

Table 9.2.2:	Distribution of corrected serum calcium, PD patients 2006-2015	124
Table 9.2.3:	Distribution of serum phosphate, HD patients 2006-2015	125
Table 9.2.4:	Distribution of serum phosphate, PD patients 2006-2015	125
Table 9.2.5:	Distribution of corrected calcium x phosphate product, HD patients 2006-2015	126
Table 9.2.6:	Distribution of corrected calcium x phosphate product, PD patients 2006-2015	126
Table 9.2.7(a):	Variation in corrected median serum calcium level among HD centres 2006-2015	127
Table 9.2.8(a):	Variation in corrected median serum calcium level among PD centres 2006-2015	127
Table 9.2.7(b):	Proportion of patients with serum calcium 2.1 to 2.37 mmol/L, HD centres, 2006-2015	128
Table 9.2.8(b):	Proportion of patients with serum calcium 2.1 to 2.37 mmol/L, PD centres	128
Table 9.2.9(a):	Variation in median serum phosphate level among HD centres, 2006-2015	129
Table 9.2.10(a):	Variation in median serum phosphate levels among PD centres 2006-2015	129
Table 9.2.9(b):	Proportion of patients with serum phosphate 1.13-1.78 mmol/L, HD centres 2006-2015	130
Table 9.2.10(b):	Proportion of patients with serum phosphate 1.13-1.78 mmol/L, PD centres 2006-2015	130
Table 9.2.9(c):	Proportion of patients with serum phosphate 0.8-1.3 mmol/L, HD centres 2006-2015	131
Table 9.2.10(c):	Proportion of patients with serum phosphate 0.8-1.3 mmol/L, PD centres 2006-2015	131
Table 9.2.11(a):	Variation in corrected median calcium x phosphate product HD centres 2006-2015	132
Table 9.2.12(a):	Variation in corrected median calcium x phosphate product PD centres 2006-2015	132
Table 9.2.11(b):	Proportion of patients with corrected calcium x phosphate <4.5 mmol ² /L ² , HD centres 2006-2015	133
Table 9.2.12(b):	Proportion of patients with corrected calcium x phosphate <4.5 mmol ² /L ² , PD 2006-2015	133
Table 9.3.1(a):	Treatment of hyperparathyroidism in HD patients, 2006-2015	134
Table 9.3.1(b):	Treatment of hyperparathyroidism in PD patients, 2006-2015	134
Table 9.3.2(a):	Distribution of iPTH, HD patient 2006-2015	135
Table 9.3.2(b):	Distribution of iPTH, diabetic HD patients 2006-2015	135
Table 9.3.2(c):	Distribution of iPTH, non-diabetic HD patients 2006-2015	136
Table 9.3.3(a):	Distribution of iPTH, PD patients 2006-2015	136
Table 9.3.3(b):	Distribution of iPTH, diabetic PD patients, 2006-2015	137
Table 9.3.3(c):	Distribution of iPTH, non diabetic PD patients 2006-2015	137
Table 9.3.4(a):	Variation in iPTH among HD centres 2006-2015	138
Table 9.3.4(b):	Variation in proportion of patients with iPTH 150-300pg/ml, HD centres 2006-2015	138
Table 9.3.5(a):	Variation in median iPTH among PD patients 2006-2015	139
Table 9.3.5(b):	Variation in proportion of patients with iPTH 150-300pg/ml, PD centres 2006-2015	139
Table 10.1:	Prevalence of positive HBsAg and positive Anti-HCV at annual survey, HD patients 2006-2015	142
Table 10.2:	Prevalence of positive HBsAg and positive Anti-HCV at annual survey, PD patients 2006-2015	142
Table 10.3:	Variation in Proportion of patients with positive HBsAg at annual survey among HD centres, 2006-2015	143
Table 10.4:	Variation in proportion of patients with positive HBsAg at annual survey among PD centres, 2006-2015	144
Table 10.5:	Variation in proportion of patients with positive anti-HCV at annual survey among HD centres, 2006-2015	144

LIST OF TABLES *(con't)*

Table 10.6:	Variation in proportion of patients with positive anti-HCV at annual survey among PD centres, 2006-2015	145
Table 11.1.1:	Vascular access on haemodialysis, 2006-2015	148
Table 11.1.2:	Difficulties report with vascular access, 2006-2015	149
Table 11.1.3:	Complications reported with vascular access, 2006-2015	149
Table 11.2.1:	Blood flow rates in HD centers, 2006-2015	150
Table 11.2.2:	Number of HD sessions per week, 2006-2015	151
Table 11.2.3:	Duration of HD, 2006-2015	152
Table 11.2.4:	Dialyser membrane types in HD centers, 2006-2015	152
Table 11.2.5:	Dialyser reuse frequency in HD centers, 2006-2015	153
Table 11.2.6(a):	Distribution of prescribed Kt/V, HD patients 2006-2015	154
Table 11.2.6(b):	Distribution of delivered Kt/V, HD patients 2006-2015	155
Table 11.2.6(c):	Distribution of URR, HD patients 2006-2015	156
Table 11.2.7(a):	Variation in median blood flowrates in HD patients, HD centers, 2006-2015	156
Table 11.2.7 (b):	Proportion of patients with blood flow rates > 300 ml/min, HD centers 2006-2015	157
Table 11.2.7(c):	Proportion of patients with 3 HD sessions per week, HD centers 2006-2015	158
Table 11.2.7(d):	Median prescribed Kt/Vin HD patients, HD centers 2006-2015	158
Table 11.2.7(e):	Proportion of patients with prescribed Kt/V 1.3, 2006-2015	159
Table 11.2.7(f):	Median delivered Kt/Vin HD patients, HD centers 2006-2015	159
Table 11.2.7(g):	Proportion of patients with delivered Kt/V 1.2, HD centers 2006-2015	160
Table 11.2.7(h):	Median URR among HD patients, HD centers 2006-2015	160
Table 11.2.7(i):	Proportion of HD patients with URR 65%, HD centers 2006-2015	160
Table 11.3.1(a):	Unadjusted technique survival by year of entry, 2006-2015	160
Table 11.3.1(b):	Unadjusted technique survival by year of entry (censored for death & transplant), 2006-2015	162
Table 11.3.2(a):	Unadjusted technique survival by age, 2006-2015	163
Table 11.3.2(b):	Unadjusted technique survival by age (censored for death& transplant), 2006-2015	164
Table 11.3.3(a):	Unadjusted technique survival by diabetes status, 2006-2015	165
Table 11.3.3(b):	Unadjusted technique survival by diabetes status (censored for death & transplant), 2006-2015	166
Table 12.1.1:	Peritoneal dialysis regimes, 2006-2015	168
Table 12.1.2:	CAPD connectology, 2006-2015	168
Table 12.1.3a:	CAPD Number of Exchanges per day, 2006-2015	169
Table 12.1.3b:	APD dwell volumes per day, 2006-2015	169
Table 12.1.4:	Assistanceto Perform PD, 2006-2015	170
Table 12.2.1:	Distribution of delivered Kt/V, PD patients 2006-2015	172
Table 12.2.2:	Variation in proportion of patients with Kt/V \geq 1.7 per week among PD centres, 2006-2015	172
Table 12.2.3:	Peritoneal transport status by PET D/P creatinine at 4 hours, new PD patients 2006-2015	173
Table 12.2.4:	Peritoneal Transport Status (PET) with dialysis vintage	173
Table 12.2.5:	Residual Urine Volume	173
Table 12.3.1(a):	Unadjusted technique survival by era 2006-2010 and 2006-2015 (uncensored for death and transplant)	174
Table 12.3.1(b):	Unadjusted technique survival by era 2006-2010 and 2006-2015 (censored for death and transplant)	175

LIST OF TABLES *(con't)*

Table 12.3.2(a):	Unadjusted technique survival by age (uncensored for death and transplant)	175
Table 12.3.2(b):	Unadjusted technique survival by age (censored for death and transplant)	177
Table 12.3.3(a):	Unadjusted technique survival by gender (uncensored for death and transplant)	178
Table 12.3.3(b):	Unadjusted technique survival by gender (censored for death and transplant)	178
Table 12.3.4(a):	Unadjusted technique survival by diabetes status (uncensored for death and transplant), 2006-2015	179
Table 12.3.4(b):	Unadjusted technique survival by diabetes status (censored for death and transplant)	180
Table 12.3.5:	Unadjusted technique survival by Kt/V, 2006-2015	180
Table 12.3.6:	Adjusted hazard ratio for change of modality, 2006-2015	181
Table 12.3.7(a):	Reasons for drop-out from PD program, 2006-2015	183
Table 12.3.7(b):	Drop-out rate from PD program with time on treatment, 2006-2015	184
Table 12.3.8:	Time on PD (Prevalent PD patients 31 Dec 2015)	185
Table 12.4.1:	Variation in peritonitis rate (pt-month/epi) among PD centres, 2006-2015	186
Table 12.4.2 (a):	Causative organism in PD peritonitis, 2006-2015	187
Table 12.4.3(a):	Outcome of peritonitis by causative organism, 2006-2010	188
Table 12.4.3(b):	Outcome of peritonitis by causative organism, 2006-2015	189
Table 12.4.4:	Risk factors influencing peritonitis rate, 2006-2015	190
Table 13.1.1:	Stock and flow of renal transplantation, 2006-2015	192
Table 13.1.2:	New transplant rate permillion population (pmp), 2006-2015	192
Table 13.1.3:	Transplant prevalence rate per million population (pmp), 2006-2015	193
Table 13.1.4:	Place of transplantation, 2006-2015	194
Table 13.2.1:	Renal transplant recipients' characteristics, 2006-2015	195
Table 13.2.2:	Primary causes of end stage renal failure, 2006-2015	195
Table 13.3.1:	Type of renal transplantation, 2006-2015	196
Table 13.3.2:	Table 13.3.2 summarised the biochemical data for all the transplant recipients from 2011 to 2015.	197
Table 13.3.3:	Immunosuppressive Medications, 2006-2015	199
Table 13.3.4:	Non immunosuppressive medications, 2006-2015	200
Table 13.4.1:	Post transplant complications, 2006-2015	201
Table 13.4.2:	Transplant patient death rate and graft loss, 2006-2015	202
Table 13.4.3:	Causes of death in transplant recipients, 2006-2015	202
Table 13.4.4:	Causes of graft failure, 2006-2015	203
Table 13.5.1(a):	Patient survival, 2006-2015	204
Table 13.5.1(b):	Risk factors for transplant patient survival 2006-2015	205
Table 13.5.2(a):	Graft survival, 2006-2015	206
Table 13.5.2(b):	Risk factors for transplant graft survival 2006-2015	207
Table 13.5.3:	Unadjusted patient survival by type of transplant, 2006-2015	208
Table 13.5.4:	Graft survival by type of transplant, 2006-2015	209
Table 13.5.5(a):	Patient survival by year of transplant (Living related transplant, 2006-2015)	209
Table 13.5.5(b):	Graft survival by year of transplant (Living related transplant,2006-2015)	210
Table 13.5.6(a):	Patient survival by year of transplant (Commercial cadaver transplant, 2006-2015)	210
Table 13.5.6(b):	Graft survival by year of transplant (Commercial cadaver transplant, 2006-2015)	211
Table 13.6.1:	Risk factors for IHD in renal transplant recipients at year 2011-2015	212
Table 13.6.2(a):	Systolic BP, 2011-2015	214
Table 13.6.2(b):	Diastolic BP, 2011-2015	214
Table 13.6.3:	CKD stages, 2011-2015	215

LIST OF TABLES *(con't)*

Table 13.6.4:	BMI, 2011-2015	216
Table 13.6.5(a):	LDL, 2011-2015	216
Table 13.6.5(b):	Total cholesterol, 2011-2015	217
Table 13.6.5(c):	HDL, 2011-2015	217
Table 13.6.6(a):	Treatment for hypertension, 2011-2015	218
Table 13.6.6(b):	Distribution of systolic BP without anti hypertensives, 2011-2015	219
Table 13.6.6(c):	Distribution of diastolic BP without anti hypertensives, 2011-2015	219
Table 13.6.6(d):	Distribution of systolic BP on anti hypertensives, 2011-2015	219
Table 13.6.6(e):	Distribution of diastolic BP on anti hypertensives, 2011-2015	204
Table 13.7.1:	Cumulative distribution of QoL-Index score in relation to dialysis modality, transplant recipient patients 2006-2015	220
Table 13.7.2:	Cumulative distribution of QoL-Index score in relation to diabetes mellitus, transplant recipient patients 2006-2015	220
Table 13.7.3:	Cumulative distribution of QoL-Index score in relation to gender, transplant recipient patients 2006-2015	221
Table 13.7.4:	Cumulative distribution of QoL-Index score in relation to age, transplant recipient patients 2006-2015	221
Table 13.7.5:	Cumulative distribution of QoL-Index score in relation to year of entry, transplant recipient patients 2006-2015	222

LIST OF FIGURES

Figure 1.1:	Stock and flow of RRT, Malaysia 2006-2015	2
Figure 1.2:	New dialysis acceptance and new transplant rate, 2006-2015	3
Figure 1.3:	Dialysis and transplant prevalence rate per million population, 2006-2015	3
Figure 2.1.3(a):	Dialysis Treatment Rate by Gender 2006-2015	7
Figure 2.1.3(b):	Gender Distribution of Dialysis Patients 2006-2015	8
Figure 2.1.4(a):	Dialysis Treatment Rate by Age Group 2006-2015	9
Figure 2.1.4(b):	Age Distribution of Dialysis Patients 2006-2015	9
Figure 2.1.5:	Method and Location of Dialysis Patients 2006-2015	10
Figure 2.1.6:	Funding for Dialysis Treatment 2006-2015	11
Figure 2.1.7:	Distribution of Dialysis Patients by Sector 2006-2015	12
Figure 2.1.8:	Primary Renal Diseases for New Dialysis Patients 2006-2015	13
Figure 2.2.1(a):	Number of Dialysis Centre in Malaysia by Sector, 2010-2015	15
Figure 2.2.1(b):	Number of Dialysis Centre in Malaysia by State and Sector in 2015	15
Figure 2.2.4(a):	Number of HD machines in Malaysia by Sector from Year 2010-2015	20
Figure 2.2.4(b):	Number of HD machines in Malaysia by State and Sector in Year 2015	20
Figure 2.2.5(a):	Number of Dialysis Patient (HD+PD) in Malaysia by Sector from 2010-2015	21
Figure 2.2.5(b):	Number of Dialysis Patient (HD+PD) in Malaysia by State and Sector in 2015	21
Figure 2.2.8(a):	HD Capacity to Patient Ratio among HD Centres in Malaysia by State and Sector, 2010-2015	27
Figure 2.2.8(b):	HD Capacity to Patient Ratio among HD Centres in Malaysia by State and sector, 2015	27
Figure 2.2.9(a):	Number of Certified Dialysis Nurses/ Medical technicians in Malaysia by Sector, 2010-2015	29
Figure 2.2.9(b):	Number of Certified Dialysis Nurses/ Medical technicians in Malaysia by State and Sector, 2015	29
Figure 3.1.1:	Death rates on dialysis 2006-2015	32
Figure 3.2.1(a):	Patient survival by dialysis modality analysis (censored for change of modality)	34
Figure 3.2.1(b):	Patient survival by dialysis modality analysis (not censored for change of modality)	34
Figure 3.2.2:	Unadjusted patient survival by year of entry, 2006-2015	36
Figure 3.2.3:	Figure 3.2.3: Unadjusted patient survival by 4 Era, 1996-2015	36
Figure 3.2.4:	Unadjusted patient survival by age	37
Figure 3.2.5:	Unadjusted patient survival by diabetes mellitus status	38
Figure 3.3.1(a):	Variation in patient survival at 1-year among HD centres adjusted for age and diabetes mellitus status, 2006-2014	39
Figure 3.3.1(b):	Funnel plot at 1-year among HD centres adjusted for age and diabetes mellitus status, 2006-2014 cohort	39
Figure 3.3.1(c):	Variation in patient survival at 5-years among HD centres adjusted for age and diabetes mellitus status, 2006-2010	39
Figure 3.3.1(d):	Funnel plot for patient survival at 5-years among HD centres adjusted age and diabetes mellitus, 2006-2010 cohort	39
Figure 3.3.2(a):	Variation in patient survival at 1-year among PD centres adjusted for age and diabetes mellitus, 2006-2014	40
Figure 3.3.2(b):	Funnel plot at 1-year among PD centres adjusted for age and diabetes mellitus status, 2005-2013 cohort	40
Figure 3.3.2(c):	Variation in patient survival at 5-years among PD centres adjusted for age and diabetes mellitus, 2006-2010	40

LIST OF FIGURES *(con't)*

Figure 3.3.2(d):	Funnel plot for patient survival at 5-years among PD centres adjusted age and diabetes mellitus, 2006-2010 cohort	40
Figure 3.4.1(a):	Adjusted hazard ratio for mortality of dialysis patients uncensored for change of modality by diastolic blood pressure (2006-2015 cohort)	41
Figure 3.4.1(b):	Adjusted hazard ratio for mortality of dialysis patients uncensored for change of modality by serum phosphate (2006-2015 cohort)	41
Figure 3.4.1(c):	Adjusted hazard ratio for mortality of dialysis patients uncensored for change of modality by hemoglobin (2006-2015 cohort)	43
Figure 3.4.2:	Adjusted hazard ratio for mortality of HD patients uncensored for change of modality by Kt/V (2006-2015 cohort)	45
Figure 3.4.4(a):	Variations in RAMR by HD centre, 2014	48
Figure 3.4.4(b):	Funnel plot of RAMR by HD centre, 2014	48
Figure 3.4.5(a):	Variations in RAMR by PD centres, 2014	48
Figure 3.4.5(b):	Funnel plot for RAMR by PD centres, 2014	48
Figure 4.1:	Cumulative distribution of QoL-Index score in relation to dialysis modality, all dialysis patients 2006-2015	50
Figure 4.2:	Cumulative distribution of QoL-Index score in relation to DM, All Dialysis patients, 2006-2015	50
Figure 4.3:	Cumulative distribution of QoL-Index score in relation to gender, all dialysis patients, 2006-2015	51
Figure 4.4:	Cumulative distribution of QoL-Index score in relation to age, all dialysis patients, 2006-2015	51
Figure 4.5:	Cumulative distribution of QoL-Index score in relation to year of entry, HD patients 2006-2015	52
Figure 4.6:	Cumulative distribution of QoL-Index score in relation to year of entry, PD patients 2006-2015	52
Figure 5.1(a):	Incidence cases of RRT by modality in children under 20 years old, 2006-2015	56
Figure 5.1(b):	Prevalence cases of RRT by modality in children under 20 years old, 2006-2015	56
Figure 5.2:	Incidence and prevalence rate per million age related population, 2006-2015	57
Figure 5.4:	Number of new dialysis and transplant patients by gender, 2006-2015	58
Figure 5.5:	New RRT rate by age group, 2006-2015	59
Figure 5.6:	New dialysis by treatment modality, 2006-2015	59
Figure 5.7:	New dialysis by sector, 2006-2015	60
Figure 5.10(a):	Patient survival by dialysis modality analysis (not censored with change of modality), 2006-2015	61
Figure 5.10(b):	Patient survival by dialysis modality analysis (censored with change of modality), 2006-2015	61
Figure 5.12:	Dialysis technique survival by modality, 2006-2015	62
Figure 5.14:	Transplant graft survival, 2006-2015	63
Figure 6.1.3:	Variation in ESAs utilization (% patients) among HD centres, 2015	69
Figure 6.1.4:	Variation in ESAs utilization (% patients) among PD centres, 2015	69
Figure 6.1.5:	Variation in mean weekly ESAs dose (u/week) among HD centres, 2015	70
Figure 6.1.6:	Variation in mean weekly ESAs dose (u/week) among PD centres, 2015	70
Figure 6.1.7:	Variation in use of blood transfusion (% patients) among HD centres, 2015	71
Figure 6.1.8:	Variation in use of blood transfusion (% patients) among PD centres, 2015	71
Figure 6.2.1:	Cumulative Distribution of serum ferritin without ESAs, HD patients 2006-2015	72
Figure 6.2.2:	Distribution of serum ferritin without ESAs, PD patients 2006-2015	72

LIST OF FIGURES *(con't)*

Figure 6.2.3:	Cumulative distribution of serum ferritin on ESAs, HD patients 2006-2015	73
Figure 6.2.4:	Cumulative distribution of serum ferritin on ESAs, PD patients 2006-2015	73
Figure 6.2.5:	Cumulative distribution of transferrin saturation without ESAs, HD patients 2006-2015	74
Figure 6.2.6:	Cumulative distribution of transferrin saturation without ESAs, PD patients 2006-2015	74
Figure 6.2.7:	Cumulative distribution of transferrin saturation on ESAs, HD patients 2006-2015	75
Figure 6.2.8:	Cumulative distribution of transferrin saturation on ESAs, PD patients 2006-2015	75
Figure 6.2.9(a):	Variation in medium serum ferritin among patients on ESAs, HD centres 2015	76
Figure 6.2.9(b):	Variation in proportion of patients on ESAs with serum ferritin ≥ 100 ng/ml, HD centres 2015	76
Figure 6.2.9(c):	Variation in median transferrin saturation among patients on ESAs HD centres 2015	77
Figure 6.2.9(d):	Variation in proportion of patients on ESAs with transferrin saturation $\geq 20\%$, HD centres 2015	77
Figure 6.2.10(a):	Variation in medium serum ferritin among patients on ESAs, PD centres 2015	78
Figure 6.2.10(b):	Variation in proportion of patients on ESAs with serum ferritin ≥ 100 ng/ml, PD centres 2015	78
Figure 6.2.10(c):	Variation in median transferrin saturation among patients on ESAs, PD centres 2015	79
Figure 6.2.10(d):	Variation in proportion of patients on ESAs with transferrin saturation $\geq 20\%$, PD centres 2015	79
Figure 6.3.1:	Cumulative distribution of haemoglobin concentration without ESAs, HD patients 2006-2015	81
Figure 6.3.2:	Cumulative distribution of haemoglobin concentration without ESAs, PD patients 2006-2015	81
Figure 6.3.3(a):	Cumulative distribution of haemoglobin concentration on ESAs, diabetes HD patients 2006-2015	82
Figure 6.3.3(b):	Cumulative distribution of haemoglobin concentration on ESAs, non-diabetes HD patients 2006-2015	82
Figure 6.3.4(a):	Cumulative distribution of haemoglobin concentration on ESAs, diabetes PD patients 2006-2015	83
Figure 6.3.4(b):	Cumulative distribution of haemoglobin concentration on ESAs, non-diabetes PD patients 2006-2015	83
Figure 6.3.5(a):	Variation in median haemoglobin level among patients on ESAs, HD centres 2015	84
Figure 6.3.5(b):	Variation in proportion of patients on ESAs with haemoglobin level > 10 g/dL, HD centres 2015	84
Figure 6.3.6(a):	Variation in median haemoglobin level among patients on ESAs, PD centres 2015	85
Figure 6.3.6(b):	Variation in proportion of patients on ESAs with haemoglobin level >10 g/dL, PD centres, 2015	85
Figure 7.1.1:	Cumulative distribution of serum albumin, HD patients 2006-2015	88
Figure 7.1.2:	Cumulative distribution of serum albumin, PD patients 2006-2015	88
Figure 7.1.3:	Variation in proportion of patients with serum albumin ≥ 40 g/L, HD centres 2015	90
Figure 7.1.4:	Variation in proportion of patients with serum albumin ≥ 40 g/L, PD centres 2015	90
Figure 7.2.1:	Cumulative distribution of BMI, HD patients 2006-2015	91
Figure 7.2.2:	Cumulative distribution of BMI, PD patients 2006-2015	91
Figure 7.2.3:	Variation in proportion of patients with BMI ≥ 18.5 kg/m ² among HD centres 2015	93
Figure 7.2.4:	Variation in proportion of patients with BMI ≥ 18.5 kg/m ² among PD centres 2015	93

LIST OF FIGURES *(con't)*

Figure 7.2.5:	Variation in proportion of patients with BMI ≥ 18.5 kg/m ² and serum albumin ≥ 40 g/L among HD centres 2015	94
Figure 7.2.6:	Variation in proportion of patients with BMI ≥ 18.5 kg/m ² and serum albumin ≥ 40 g/L among PD centres 2015	94
Figure 8.1.1:	Cumulative distribution of predialysis systolic blood pressure, HD patients 2006-2015	100
Figure 8.1.2:	Cumulative distribution of pre dialysis diastolic blood pressure, HD patients 2006-2015	101
Figure 8.1.3:	Distribution of pre dialysis systolic blood pressure, PD patients 2006-2015	102
Figure 8.1.4:	Cumulative distribution of pre dialysis diastolic blood pressure, PD patients 2006-2015	103
Figure 8.1.5(a):	Variation in proportion of HD patients with pre dialysis blood pressure $\leq 140/90$ mmHg, HD centres	103
Figure 8.1.5(b):	Variation in median systolic blood pressure among HD patients, HD centres 2015	104
Figure 8.1.5(c):	Variation in median diastolic blood pressure among HD patients, HD centres 2015	105
Figure 8.1.6(a):	Variation in proportion of PD patients with pre dialysis blood pressure $\leq 140/90$ mmHg, PD centres 2015	105
Figure 8.1.6(b):	Variation in median systolic blood pressure among PD patients, PD centres 2015	106
Figure 8.1.6(c):	Variation in median diastolic blood pressure among PD patients, PD centres 2015	107
Figure 8.1.7(a):	Relationship between blood pressure and death in dialysis patients 2006-2015	108
Figure 8.2.1:	Cumulative distribution of cholesterol, HD patients 2006-2015	109
Figure 8.2.2:	Cumulative distribution of cholesterol (mmol/L), PD patients 2006-2015	110
Figure 8.2.3:	Cumulative distribution of serum triglyceride, HD patients 2006-2015	111
Figure 8.2.4:	Cumulative distribution of serum triglyceride, PD patients 2006-2015	112
Figure 8.2.5(a):	Variation in median serum cholesterol level among HD patients, HD centres 2015	113
Figure 8.2.5(b):	Variation in proportion of patients with serum cholesterol < 5.3 mmol/L, HD centres 2015	113
Figure 8.2.5(c):	Variation in median serum triglyceride level among HD patients, HD centers 2015	114
Figure 8.2.5(d):	Variation in proportion of patients with serum triglyceride < 2.1 mmol/L, HD centers 2015	115
Figure 8.2.6(a):	Variation in median serum cholesterol level among PD patients, PD centres 2015	115
Figure 8.2.6(b):	Variation in proportion of patients with serum cholesterol < 5.3 mmol/L, PD centres 2015	116
Figure 8.2.6(c):	Variation in median serum triglyceride level among PD patients, PD centres 2015	117
Figure 8.2.6(d):	Variation in proportion of patients with serum triglyceride < 2.1 mmol/L, PD centres 2015	117
Figure 8.2.7(a):	Relationship between serum cholesterol categories and death, dialysis patients 2006-2015	118
Figure 9.2.1:	Cumulative distribution of corrected serum calcium, HD patients 2006-2015	124
Figure 9.2.2:	Cumulative distribution of corrected serum calcium, PD patients 2006-2015	124
Figure 9.2.3:	Cumulative distribution of serum phosphate, HD patients 2006-2015	125
Figure 9.2.4:	Cumulative distribution of serum phosphate, PD patients 2006-2015	125
Figure 9.2.5:	Cumulative distribution of corrected calcium x phosphate product, HD patients 2006-2015	126
Figure 9.2.6:	Cumulative distribution of corrected calcium x phosphate product, PD patients 2006-2015	126

LIST OF FIGURES *(con't)*

Figure 9.2.7(a):	Variation in median serum calcium among HD patients, HD centres 2015	127
Figure 9.2.8(a):	Variation in median serum calcium level among PD patients, PD centres 2015	127
Figure 9.2.7(b):	Variation in proportion of patients with serum calcium 2.1 to 2.37 mmol/L, HD centres 2015	128
Figure 9.2.8(b):	Variation in proportion of patients with serum calcium 2.1 to 2.37 mmol/L, PD centres 2015	128
Figure 9.2.9(a):	Variation in median serum phosphate level among HD patients, HD centres 2015	129
Figure 9.2.10(a):	Variation in median serum phosphate level among PD patients, PD centres 2015	129
Figure 9.2.9(b):	Variation in proportion of patients with serum phosphate 1.13-1.78 mmol/L, HD centres 2015	130
Figure 9.2.10(b):	Variation in proportion of patients with serum phosphate 1.13-1.78 mmol/L, PD centres 2015	130
Figure 9.2.9(c):	Variation in proportion of patients with serum phosphate 0.8-1.3 mmol/L, HD centres 2015	131
Figure 9.2.10(c):	Variation in proportion of patients with serum phosphate 0.8-1.3 mmol/L, PD centres 2015	131
Figure 9.2.11(a):	Variation in median corrected calcium x phosphate product among HD patients, HD centres 2015	132
Figure 9.2.12(a):	Variation in median corrected calcium x phosphate product among PD patients, PD centres 2015	132
Figure 9.2.11(b):	Variation in proportion of patients with corrected calcium x phosphate product <4.5 mmol ² /L ² , HD centres 2015	133
Figure 9.2.12(b):	Variation in proportion of patients with corrected calcium x phosphate product <4.5 mmol ² /L ² , PD centres, 2015	133
Figure 9.3.2(a):	Cumulative distribution of iPTH, HD 2006-2015	135
Figure 9.3.2(b):	Cumulative distribution of iPTH, diabetic HD patients 2006-2015	135
Figure 9.3.2(c):	Cumulative distribution of iPTH, non-diabetic HD patients 2006-2015	136
Figure 9.3.3(a):	Cumulative distribution of iPTH, PD patients 2006-2015	136
Figure 9.3.3(b):	Cumulative distribution of iPTH, diabetic PD patients 2006-2015	137
Figure 9.3.3(c):	Cumulative distribution of iPTH, non diabetic PD patients 2006-2015	137
Figure 9.3.4(a):	Variation in median iPTH among HD patients, HD centres 2015	138
Figure 9.3.4(b):	Variation in proportion of patients with iPTH 150-300pg/ml, HD centres, 2015	138
Figure 9.3.5(a):	Variation in median iPTH among PD patients, PD centres, 2015	139
Figure 9.3.5(b):	Variation in proportion of patients with iPTH 150-300pg/ml, PD centres 2015	139
Figure 10.3:	Variation in proportion of patients with positive HBsAg among HD centres, 2015	143
Figure 10.4:	Variation in proportion of patients with positive HBsAg among PD centres, 2015	143
Figure 10.5:	Variation in proportion of patients with positive anti HCV among HD centres, 2015	144
Figure 10.6:	Variation in proportion of patients with positive anti HCV among PD centres, 2015	144
Figure 11.2.1:	Blood flow rates in HD centers, 2006-2015	151
Figure 11.2.4:	Dialyser membrane types in HD centers, 2006-2015	153
Figure 11.2.6(a):	Cumulative distribution of prescribed Kt/V, HD patients 2006-2015	155
Figure 11.2.6(b):	Cumulative distribution of delivered Kt/V, HD patients 2011-2015	156
Figure 11.2.6 (c):	Cumulative distribution of URR, HD patients 2011-2015	156
Figure 11.2.7 (a):	Variation in median blood flow rates in HD patients among centers 2015	157

LIST OF FIGURES *(con't)*

Figure 11.2.7 (b):	Variation in Proportion of patients with blood flowrates ≥ 300 ml/min among HD centers 2015	157
Figure 11.2.7(c):	Variation in proportion of patients with 3 HD sessions per week among HD centers 2015	158
Figure 11.2.7(d):	Variation in median prescribed Kt/Vin HD patients among HD centers 2015	158
Figure 11.2.7(e):	Variation in proportion of patients with prescribed Kt/V 1.3 among HD centers 2015	159
Figure 11.2.7(f):	Variation in median delivered Kt/Vin HD patients among HD centers 2015	159
Figure 11.2.7(g):	Variation in proportion of patients with delivered Kt/V 1.2, HD centers 2015	160
Figure 11.2.7(h):	Variation in median URR among HD patients, HD centers 2015	160
Figure 11.2.7(i):	Variation in proportion of patients with URR $\geq 65\%$ among HD centers 2015	161
Figure 11.3.1(a):	Unadjusted technique survival by year of entry, 2006-2015	162
Figure 11.3.1(b):	Unadjusted technique survival by year of entry (censored for death & transplant), 2006-2015	162
Figure 11.3.2(a):	Unadjusted technique survival by age, 2006-2015	164
Figure 11.3.2(b):	Unadjusted technique survival by age (censored for death & transplant), 2006-2015	164
Figure 11.3.3(a):	Unadjusted technique survival by diabetes status, 2006-2015	165
Figure 11.3.3(b):	Unadjusted technique survival by diabetes status (censored for death & transplant), 2006-2015	165
Figure 12.1.4(a):	Assistance to Perform CAPD, 2006-2015	171
Figure 12.1.4(b):	Assistance to Perform APD, 2006-2015	171
Figure 12.2.1:	Cumulative distribution of delivered Kt/V, PD patients 2006-2015	172
Figure 12.2.2:	Variation in proportion of patients with Kt/V ≥ 1.7 per week among PD centres 2006-2015	172
Figure 12.2.5:	Residual Urine Volume in prevalent PD patients (2015)	174
Figure 12.3.1a:	Unadjusted technique survival by era 2006-2010 and 2011-2015 (uncensored for death and transplant)	175
Figure 12.3.1(b):	Unadjusted technique survival by era 2006-2010 and 2011-2015 (censored for death and transplant)	175
Figure 12.3.2(a):	Unadjusted technique survival by age (uncensored for death and transplant)	176
Figure 12.3.2(b):	Unadjusted technique survival by age (censored for death and transplant)	176
Figure 12.3.3(a):	Unadjusted technique survival by gender (uncensored for death and transplant)	178
Figure 12.3.3(b):	Unadjusted technique survival by gender (censored for death and transplant)	178
Figure 12.3.4(a):	Unadjusted technique survival by Diabetes status (uncensored for death and transplant)	179
Figure 12.3.4(b):	Unadjusted technique survival by diabetes status (censored for death and transplant)	179
Figure 12.3.5:	Unadjusted technique survival by Kt/V, 2006-2015	181
Figure 12.3.7(a):	Reasons for drop-out from PD program, 2006-2015	184
Figure 12.4.1 (i):	Variation in peritonitis rate among PD centres, 2015	186
Figure 12.4.1 (ii):	Variation in peritonitis rate among paediatric PD centres, 2015	186
Figure 12.4.2:	Causative organism in PD peritonitis, 2006-2015	188
Figure 12.4.3(a):	Outcome of peritonitis by causative organism, 2006-2010	189
Figure 12.4.3(b):	Outcome of peritonitis by causative organism, 2011-2015	189
Figure 12.4.3(c):	Comparison of peritonitis outcome by causative organism by era, 2005-2009 & 2009-2013	190
Figure 13.1.1:	Stock and flow of renal transplantation, 2006-2015	192

LIST OF FIGURES *(con't)*

Figure 13.1.2 (a):	New transplant rate, 2006-2015	193
Figure 13.1.2 (b):	Transplant prevalence rate, 2006-2015	193
Figure 13.1.4(a):	Places of transplantation, 2006-2015	194
Figure 13.1.4(b):	Place of transplantation within Malaysia	194
Figure 13.4.2(a):	Transplant recipient death rate, 2006-2015	202
Figure 13.4.2(b):	Transplant recipient graft loss rate, 2006-2015	202
Figure 13.5.1(a):	Patient survival, 2006-2015	204
Figure 13.5.2(a):	Graft survival, 2006-2015	206
Figure 13.5.3:	Patient survival by type of transplant, 2006-2015	208
Figure 13.5.4:	Graft survival by type of transplants, 2006-2015	208
Figure 13.5.5(a):	Patient survival by year of transplant (Living related transplant, 2006-2015)	210
Figure 13.5.5(b):	Graft survival by year of transplant (Living related transplant, 2006-2015)	210
Figure 13.5.6(a):	Patient survival by year of transplant (Commercial cadaver transplant, 2006-2015)	211
Figure 13.5.6(b):	Graft survival by year of transplant (Commercial cadaver transplant, 2006-2015)	211
Figure 13.6.1(a):	Venn diagram for pre and post transplant complications (in %) at year 2011	212
Figure 13.6.1(b):	Venn diagram for pre and post transplant complications (in %) at year 2012	212
Figure 13.6.1(c):	Venn diagram for pre and post transplant complications (in %) at year 2013	213
Figure 13.6.1(d):	Venn diagram for pre and post transplant complications (in %) at year 2014	213
Figure 13.6.1(e):	Venn diagram for pre and post transplant complications (in %) at year 2015	213
Figure 13.6.2(a):	Systolic BP, 2011-2015	214
Figure 13.6.2(b):	Diastolic BP, 2011-2015	215
Figure 13.6.3:	CKD stages by year	215
Figure 13.6.4:	BMI, 2011-2015	216
Figure 13.6.5(a):	LDL, 2011-2015	217
Figure 13.6.5(b):	Total cholesterol, 2011-2015	217
Figure 13.6.5(c):	HDL, 2011-2015	218
Figure 13.7.1:	Cumulative distribution of QoL-Index score in relation to dialysis modality, transplant recipient patients 2006-2015	220
Figure 13.7.2:	Cumulative distribution of QoL-Index score in relation to diabetes mellitus, transplant recipient patients 2006-2015	220
Figure 13.7.3:	Cumulative distribution of QoL-Index score in relation to gender, transplant recipient patients 2006-2015	221
Figure 13.7.4:	Cumulative distribution of QoL-Index score in relation to age, transplant recipient patients 2006-2015	222
Figure 13.7.5:	Cumulative distribution of QoL-Index score in relation to year of entry, transplant recipient patients 2006-2015	222

EXECUTIVE SUMMARY

In 2015, there were 37,183 patients receiving dialysis in Malaysia, and this was a two and a half fold increase from 15,087 in 2006. While the new intake of dialysis patients was only 3,710 in 2006, this had more than doubled to 7,597 in 2014. The equivalent incidence and prevalence of patients on dialysis were 249 and 1,220 per million population in 2015. Among the incident dialysis patients, 15.4% were on PD while only 10% of the prevalent dialysis patients were on PD. The increase in the dialysis population was mainly contributed by the rapid growth in private haemodialysis in the last 10 years. There was also significant demographic changes in dialysis population in Malaysia as patients above 55 years old made up 58% of all new dialysis patients in 2015 versus 51% in 2006. A staggering 61% of end stage kidney disease was reported to be caused by diabetes mellitus in 2015.

The increase in HD centre was mainly contributed by the private dialysis centres which had almost tripled over the last 10 years. NGO centres had increased by 50% over the same period of time, while the growth in MOH had plateaued since 2006. Most of the increases in the private occurred in the more economically developed west coast states of Peninsula Malaysia. Although the public, NGO and private sector provided 30%, 21% and 49% of overall dialysis treatment in 2015 respectively, the government provided 63.1% of total funding for dialysis. However, 79% of new dialysis patients younger than 20 years of age were on government-funded dialysis programmes.

The annual death rate on dialysis in 2015 was 13.4%. In 2015, the death rate was 13% among haemodialysis patients while peritoneal dialysis patients had an annual death rate of 16.9%. Majority of dialysis patients died due to cardiovascular disease and this was probably due to the increasing number of elderly and diabetic patients undergoing dialysis. Death from infection remained as the second commonest cause of death. Despite attempts at adjusting for multiple variables contributing to death, there still exist wide variations in adjusted mortality rates between dialysis centres.

91% of HD patients and 81% of PD patients received Erythropoiesis Stimulating Agents (ESAs) in 2015. However, the concern was that a substantial percentage of these patients still received blood transfusions (13 to 15%). In 2015, more than 72% of dialysis patients achieved calcium-phosphate-product < 4.5 mmol²/L². However, about 48% of dialysis patients were at risk of low bone turn over disease with iPTH <150pg/ml. Majority (93% of HD and 85% of PD patients) were on calcium based phosphate binders. The use of non-calcium based phosphate binders remained low at 3%.

EXECUTIVE SUMMARY *(con't)*

We had achieved improvement over the years in terms of achieving target haemoglobin, control of calcium-phosphate-product $<4.5\text{mmol}^2/\text{L}^2$, and dyslipidaemia. However, malnutrition and blood pressure control still require further improvement. There were also suggestions that nutritional markers such as low serum albumin, extremely low phosphate levels, low BMI and very low cholesterol levels seem to predict worse outcome. Interestingly, these parameters can also reflect chronic inflammation. There were also demonstrable variations in the achievement of these various targets between dialysis centres. The contributing factors may be case mix, adequacy of funding for the different medications required, and adequacy of dialysis and medical care.

HD patients run the risk of hepatitis infection due to nosocomial transmission. However, over the years, we have seen an encouraging decline in its prevalence with lower seroconversion rates. This was largely due to constant surveillance and strict implementation of infection control protocols within HD facilities throughout the country. Both HD and PD patients have low HCV prevalence in 2015.

In 2015, there were a total of 45 PD centres reported to NRR, and 2014 marked the first time there were 9 PD centres with >150 PD patients. There were 7 private PD centres reported to NRR and one of the private PD centres has >30 patients. In 2015, 13.2% of the total PD population was on APD, and this is a big leap from a meager of 3.6% in 2005.

Despite the rapid increase in dialysis population, the number of kidney transplantation performed in patients had remained very low. There were 82 kidney transplantations done in the country in 2015. The transplantation rate had dropped to the lowest rate of 3 per million population compared to 6 per million in 2006. The patient survival rates were 96%, 90% and 75% at 1- year, 5-years and 10-years respectively. Graft survival rate at 1-year was 92%, 5-years 82% and 10-years 60%.