

**22<sup>nd</sup> REPORT OF  
THE MALAYSIAN DIALYSIS  
& TRANSPLANT REGISTRY**

**2014**

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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, and 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

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

# PARTICIPATING HAEMODIALYSIS CENTRES 2014

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

\* CC = Compliance Certificate AR = Annual treatment return



# PARTICIPATING HAEMODIALYSIS CENTRES 2014 (con't)

Haemodialysis Centre	CC#	AR	Haemodialysis Centre	CC#	AR
Keluarga Bahagia Haemodialisis	No	<80%	Mentakab Haemodialysis Unit	Yes	>=80%
Kemaman Hospital	No	<80%	Mersing Hospital	Yes	>=80%
Keningau Hospital	Yes	>=80%	Mersing Rotary Centre	No	<80%
Kepala Batas Hospital	Yes	>=80%	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	Yes	>=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	Yes	>=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	Yes	>=80%	Mysha Qasih Dialysis Centre	Yes	>=80%
KPJ Klang Specialist Hospital	Yes	>=80%	Nefrol I-Care HDC	Yes	>=80%
KPJ Kluang Utama Specialist Hospital	Yes	>=80%	NEPH Dialysis Centre Sdn Bhd	Yes	>=80%
KPJ Penang Specialist Hospital	No	<80%	Neph Sdn Bhd (Sg Ara)	No	<80%
KPJ Puteri Specialist Hospital	Yes	>=80%	Nephcare Dialysis Centre	No	<80%
KPJ Sabah Specialist Hospital	No	<80%	Nephrolife Dialysis Centre	Yes	>=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	Yes	>=80%	Normah Medical Specialist Centre	No	<80%
Kuala Kubu Bharu Hospital	Yes	>=80%	Northern Dialysis Centre	No	<80%
Kuala Lipis Hospital	Yes	>=80%	NSCMH 1 Dialysis Care	Yes	>=80%
Kuala Lumpur Hospital (Paed)	Yes	>=80%	Nucare Dialysis Centre	Yes	>=80%
Kuala Lumpur Hospital	Yes	>=80%	Nur Dialysis Centre	Yes	>=80%
Kuala Lumpur Lions Renal Centre	Yes	>=80%	Nur Iman Dialysis Pahang	No	<80%
Kuala Nerang Hospital	Yes	>=80%	Pahang Buddhist Association	Yes	>=80%
Kuantan Clinical Diagnostic Centre	No	<80%	Pakar Perdana Hospital	Yes	>=80%
Kuantan Medical Centres	Yes	>=80%	Pantai Air Keroh Hospital	No	<80%
Kuantan Specialist Centre	Yes	>=80%	Pantai ARC Dialysis Services	No	<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	No	<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	Yes	>=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	Yes	>=80%	Persatuan Amal Chin Malaysia Barat	No	<80%
Lipis Dialysis Centre	Yes	>=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	No	<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	Yes	>=80%	Pertubuhan Hemodialisis Muhibbah Segamat (Labis)	Yes	>=80%
Mahkota Medical Centre	Yes	>=80%	Pertubuhan Hemodialisis Muhibbah	Yes	>=80%
Marudi Hospital	Yes	>=80%	Pertubuhan Hemodialisis SPS	No	<80%
MB Star Rawatan Dialisis (Hutan Melintang)	No	<80%	Pertubuhan Kebajikan Amitabha	Yes	>=80%
MB Star Rawatan Dialisis (Kelana Jaya)	No	<80%	Pertubuhan Kebajikan Hemodialisis Hospital Pakar Putra Melaka	Yes	>=80%
MB Star Rawatan Dialisis (Teluk Intan)	No	<80%	Pertubuhan Perkhidmatan Haemodialisis Ar-Ridzuan	Yes	>=80%
MB Star Rawatan Dialisis Puchong Utama	No	<80%	Pertubuhan Perkhidmatan Hemodialisis AIXIN Kerian	Yes	>=80%
MDZ Haemodialysis Centre	No*	>=80%	Peter Mole MAA-Medicare Charity Dialysis Centre	Yes	>=80%
Melaka Hospital	Yes	>=80%	Ping Rong-NKF	No	<80%

\* CC = Compliance Certificate AR = Annual treatment return

# PARTICIPATING HAEMODIALYSIS CENTRES 2014 (con't)

Haemodialysis Centre	CC#	AR	Haemodialysis Centre	CC#	AR
PJCC Dialysis Centre	Yes	>=80%	Pusat Dialisis Nefro Utama (Seberang Perai)	No	<80%
PMA Chan Meng Khor-MAA Medicare Charity Dialysis Centre	Yes	>=80%	Pusat Dialisis Nefro Utama Pontian	Yes	>=80%
Pontian Hospital	Yes	>=80%	Pusat Dialisis Nephrocare (Bukit Piatu)	Yes	>=80%
Pontian Rotary Haemodialysis Centre	Yes	>=80%	Pusat Dialisis Nephrocare (Klang)	Yes	>=80%
Port Dickson Hospital	Yes	>=80%	Pusat Dialisis NKF - Dato' Dr GA Sreenevasan	Yes	>=80%
Premier Renal Care	Yes	>=80%	Pusat Dialisis NKF-Kelab Lions Alor Star	Yes	>=80%
Prima Dialisis Kluang	Yes	>=80%	Pusat Dialisis NKF-Rotary Damansara	Yes	>=80%
Prima Dialisis Masai	No	<80%	Pusat Dialisis NKF-Sandakan Kidney Society	Yes	>=80%
Prince Court Medical Centre	Yes	>=80%	Pusat Dialisis NKF-Sang Riang (Triang)	No	<80%
Professional Dialysis Solution	Yes	>=80%	Pusat Dialisis NKF-Yayasan Buah Pinggang Kemaman	Yes	>=80%
Province Wellesley Renal Medifund	Yes	>=80%	Pusat Dialisis NKF-Yayasan Dialisis Pertubuhan Pendidikan Akhlak Taiping	Yes	>=80%
Pulau Pinang Hospital (Paed)	Yes	>=80%	Pusat Dialisis NKF-Yayasan Pembangunan Keluarga Darul Ta'zim	Yes	>=80%
Pulau Pinang Hospital	Yes	>=80%	Pusat Dialisis NKF-Yayasan Sultanah Bahiyah	Yes	>=80%
Pusat Amal Dialisis MAA Medicare (Mentakab)	Yes	>=80%	Pusat Dialisis Nuraeen	No	<80%
Pusat Dialisis & Kesihatan Masjid Bandar Baru Uda	Yes	>=80%	Pusat Dialisis Pakar Medi-Nefron (Lestari)	No	<80%
Pusat Dialisis Aiman (Shah Alam)	Yes	>=80%	Pusat Dialisis Pakar Medi-Nefron (Putra Permai)	No	<80%
Pusat Dialisis Aiman Cheras	Yes	>=80%	Pusat Dialisis Pakar	Yes	>=80%
Pusat Dialisis Albukhary	Yes	>=80%	Pusat Dialisis Palomar	Yes	>=80%
Pusat Dialisis An'nur Seksyen 13	Yes	>=80%	Pusat Dialisis Penawar Permai	Yes	>=80%
Pusat Dialisis An'nur	Yes	>=80%	Pusat Dialisis Perbadanan Islam (Johor Bahru)	Yes	>=80%
Pusat Dialisis Bandar Sri Permaisuri	Yes	>=80%	Pusat Dialisis Perbadanan Islam (Mersing)	Yes	>=80%
Pusat Dialisis BMC	Yes	>=80%	Pusat Dialisis Perbadanan Islam (Pontian)	No	<80%
Pusat Dialisis Cahaya	Yes	>=80%	Pusat Dialisis PNSB	Yes	>=80%
Pusat Dialisis CAT Negeri Pulau Pinang	Yes	>=80%	Pusat Dialisis PPBPT	Yes	>=80%
Pusat Dialisis Darul Iltizam (Slim River)	Yes	>=80%	Pusat Dialisis Prima	No	<80%
Pusat Dialisis Darul Iltizam (Taiping)	Yes	>=80%	Pusat Dialisis Rakyat Lembah Keramat	No	<80%
Pusat Dialisis Ehsan Perak (Bagan Serai)	No	<80%	Pusat Dialisis Rakyat Sementa	No	<80%
Pusat Dialisis Ehsan Perak (Parit Buntar)	Yes	>=80%	Pusat Dialisis Rakyat Taman Medan	Yes	>=80%
Pusat Dialisis Ehsan Perak (Perda)	No	<80%	Pusat Dialisis Renal Pure	Yes	>=80%
Pusat Dialisis Gemilang	Yes	>=80%	Pusat Dialisis Serai Wangi	Yes	>=80%
Pusat Dialisis Giat Kurnia (Masjid Tanah)	No	<80%	Pusat Dialisis Setia (Ipoh)	Yes	>=80%
Pusat Dialisis Giat Kurnia (Merlimau)	Yes	>=80%	Pusat Dialisis Setia (Setiawan)	Yes	>=80%
Pusat Dialisis Ibnu Sina (Kuala Ketil)	No	<80%	Pusat Dialisis Sijangkang	Yes	>=80%
Pusat Dialisis Intan	Yes	>=80%	Pusat Dialisis Simpang Renggam	Yes	>=80%
Pusat Dialisis Jasmine	Yes	>=80%	Pusat Dialisis SJ (Sg Bakap)	Yes	>=80%
Pusat Dialisis Khidmat	No	<80%	Pusat Dialisis Subang	Yes	>=80%
Pusat Dialisis Kuala Kangsar	No	<80%	Pusat Dialisis Taiping (Kamunting)	Yes	>=80%
Pusat Dialisis LZS (Kapar)	Yes	>=80%	Pusat Dialisis Taiping (Kuala Kangsar)	Yes	>=80%
Pusat Dialisis LZS (Sg. Besar)	No	<80%	Pusat Dialisis Taiping (Parit Buntar)	Yes	>=80%
Pusat Dialisis MAIDAM	Yes	>=80%	Pusat Dialisis Taiping	No	<80%
Pusat Dialisis MAIS (Melawati)	Yes	>=80%	Pusat Dialisis Terengganu/NKF	Yes	>=80%
Pusat Dialisis MAIS (Shah Alam)	No	<80%	Pusat Dialisis Touch	Yes	>=80%
Pusat Dialisis MAIS	Yes	>=80%	Pusat Dialisis Veteran ATM (Senawang)	Yes	>=80%
Pusat Dialisis Makmur (Batu Gajah)	No	<80%	Pusat Dialisis Veteran ATM (Seri Rampai)	Yes	>=80%
Pusat Dialisis Marjina	No	<80%	Pusat Dialisis Waqaf An Nur Masjid Taman Bukit Tiram	Yes	>=80%
Pusat Dialisis Mesra (Kuala Selangor)	No	<80%	Pusat Dialisis Waqaf An-nur (Batu Pahat)	No	<80%
Pusat Dialisis Mukmin Gurun	No	<80%	Pusat Dialisis Waqaf An-Nur (Sarawak)	Yes	>=80%
Pusat Dialisis Mukmin Ipoh	No	<80%	Pusat Dialisis Zara	No	<80%
Pusat Dialisis Mukmin Sikamat	Yes	>=80%	Pusat Dialisis Azalea	No	<80%
Pusat Dialisis Mukmin Simpang Ampat	Yes	>=80%	Pusat Dialisis Comfort	Yes	>=80%
Pusat Dialisis Mukmin Sungai Buloh	Yes	>=80%	Pusat Dialisis Ibnu Sina (Bagan Serai)	No	<80%
Pusat Dialisis Mukmin Telok Panglima Garang	Yes	>=80%	Pusat Dialisis Ikhlas	Yes	>=80%
Pusat Dialisis Mukmin Temerloh	Yes	>=80%	Pusat Dialisis Makmur (Senai)	Yes	>=80%
Pusat Dialisis Murni	Yes	>=80%	Pusat Dialisis Mesra (Kapar)	Yes	>=80%
Pusat Dialisis Mutiara (Ayer Tawar)	No	<80%	Pusat Dialisis Mesra (Rahman Putra)	Yes	>=80%
Pusat Dialisis Mutiara	Yes	>=80%	Pusat Dialisis Nefro Utama (Kajang Prima)	Yes	>=80%
Pusat Dialisis Myangkasa	Yes	>=80%	Pusat Dialisis Sayang Dialysis	No	<80%
Pusat Dialisis Nefro Utama (Bangsar)	Yes	>=80%	Pusat Dialisis Tuanku Syed Putra_NKF	Yes	>=80%
Pusat Dialisis Nefro Utama (Johor Bahru)	Yes	>=80%	Pusat Dialisis YKN Pantai Dalam	Yes	>=80%
Pusat Dialisis Nefro Utama (Kota Tinggi)	Yes	>=80%	Pusat Haemodialisis Bayu Caw. Taman Tasik Jaya	Yes	>=80%

\* CC = Compliance Certificate AR = Annual treatment return

# PARTICIPATING HAEMODIALYSIS CENTRES 2014 (con't)

Haemodialysis Centre	CC#	AR	Haemodialysis Centre	CC#	AR
Pusat Haemodialisis Bayu Rembau	No	<80%	Pusat Hemodialisis Mawar N. Sembilan (Seri Kembangan)	Yes	>=80%
Pusat Haemodialisis Dr. Ismail	Yes	>=80%	Pusat Hemodialisis Mergong	No	<80%
Pusat Haemodialisis Senawang	Yes	>=80%	Pusat Hemodialisis Muar	Yes	>=80%
Pusat Haemodialisis Suria (Tampin)	No	<80%	Pusat Hemodialisis Nabilah	No	<80%
Pusat Haemodialisis Suria (Tangkak)	Yes	>=80%	Pusat Hemodialisis Nilam (Semenyih)	Yes	>=80%
Pusat Haemodialisis Well Care	No	<80%	Pusat Hemodialisis Nour	Yes	>=80%
Pusat Haemodialisis Zakat (Bayan Lepas)	Yes	>=80%	Pusat Hemodialisis Perkis	No	<80%
Pusat Haemodialisis Zakat (Nibong Tebal)	Yes	>=80%	Pusat Hemodialisis Permata	Yes	>=80%
Pusat Haemodialisis Zakat Kedah	Yes	>=80%	Pusat Hemodialisis PMKL	Yes	>=80%
Pusat Haemodialisis Zakat Tasek Gelugor	Yes	>=80%	Pusat Hemodialisis PUSRAWI	Yes	>=80%
Pusat Haemodialisis Amal Lexin	Yes	>=80%	Pusat Hemodialisis Qaseh	Yes	>=80%
Pusat Haemodialisis Majlis Agama Islam Negeri Johor	Yes	>=80%	Pusat Hemodialisis Rahimra	No	<80%
Pusat Haemodialisis Nilam (Seri Kembangan)	No	<80%	Pusat Hemodialisis Rotary Kota Tinggi	Yes	>=80%
Pusat Haemodialisis Prihatin Tengku Besar Trengganu	No	<80%	Pusat Hemodialisis Sejahtera Muar	Yes	>=80%
Pusat HD SJAM Bacang Melaka	Yes	>=80%	Pusat Hemodialisis Seroja (Baling)	Yes	>=80%
Pusat Hemodialisis Al Husna	Yes	>=80%	Pusat Hemodialisis Seroja (Kulim 1)	Yes	>=80%
Pusat Hemodialisis Ar-Raudhah	Yes	>=80%	Pusat Hemodialisis Seroja (Kulim 2)	No	<80%
Pusat Hemodialisis Bandar Mas	Yes	>=80%	Pusat Hemodialisis Shah Alam	No	<80%
Pusat Hemodialisis Bayan Baru	Yes	>=80%	Pusat Hemodialisis Sinona	Yes	>=80%
Pusat Hemodialisis Bayu	No	<80%	Pusat Hemodialisis SJAM Pulau Sebang	No	<80%
Pusat Hemodialisis Beng Siew	Yes	>=80%	Pusat Hemodialisis SP	Yes	>=80%
Pusat Hemodialisis Berkat Seroja (Kuala Pilah)	No	<80%	Pusat Hemodialisis Syifa (Batangkali)	No	<80%
Pusat Hemodialisis Berkat Seroja (Machang)	Yes	>=80%	Pusat Hemodialisis Syifa (Bukit Gambir)	Yes	>=80%
Pusat Hemodialisis Darul Iltizam (Ipoh)	Yes	>=80%	Pusat Hemodialisis Syifa (Pendang)	No	<80%
Pusat Hemodialisis Darul Iltizam (Tengah)	Yes	>=80%	Pusat Hemodialisis Waz Lian	Yes	>=80%
Pusat Hemodialisis Darul Ta'zim (Batu Pahat)	Yes	>=80%	Pusat Hemodialisis Yayasan Toh Puan Zurina	Yes	>=80%
Pusat Hemodialisis Darul Ta'zim (Parit Raja)	Yes	>=80%	Pusat Hemodialisis Zakat (Balik Pulau)	Yes	>=80%
Pusat Hemodialisis Dato' Lee Kok Chee	Yes	>=80%	Pusat Hemodialisis Zakat (Bukit Mertajam)	No	<80%
Pusat Hemodialisis Desa Aman Puri	Yes	>=80%	Pusat Hemodialisis Zakat (Butterworth)	Yes	>=80%
Pusat Hemodialisis Dr Azhar Jitra	No	<80%	Pusat Hemodialisis Zakat (Kepala Batas)	Yes	>=80%
Pusat Hemodialisis Fasa (Kg Medan)	No	<80%	Pusat Hemodialisis Zakat (P. Pinang)	Yes	>=80%
Pusat Hemodialisis Fasa (Sri Manja)	Yes	>=80%	Pusat Hemodialisis Bestari (Kepala Batas)	Yes	>=80%
Pusat Hemodialisis Felda	Yes	>=80%	Pusat Hemodialisis Harmoni (Damansara)	Yes	>=80%
Pusat Hemodialisis Gemenchek	Yes	>=80%	Pusat Hemodialisis Medipro Alliance	Yes	>=80%
Pusat Hemodialisis Harmoni (Cheras)	Yes	>=80%	Pusat Hemodialisis Rotary Kulai	Yes	>=80%
Pusat Hemodialisis Harmoni (Shamelin)	Yes	>=80%	Pusat Hemodialisis Suria (Bentong)	No	<80%
Pusat Hemodialisis Hidayah	Yes	>=80%	Pusat Hemodialisis Suria (Melaka)	No	<80%
Pusat Hemodialisis Impian Kluang	Yes	>=80%	Pusat Hemodialisis Suria Kuantan	No	<80%
Pusat Hemodialisis Impian	Yes	>=80%	Pusat Hemodialisis Suria Temerloh	No	<80%
Pusat Hemodialisis Islam Makmur	Yes	>=80%	Pusat Hemodialisis Yayasan Veteran ATM (Batu Caves)	No	<80%
Pusat Hemodialisis Jerantut	No	<80%	Pusat Jantung Hospital Umum Sarawak	Yes	>=80%
Pusat Hemodialisis Kampar Yayasan Nanyang-SJAM	Yes	>=80%	Pusat Kelestarian Dialysis	No	<80%
Pusat Hemodialisis Kau Ong Yah Ampang	No	<80%	Pusat Kesihatan Jitra	Yes	>=80%
Pusat Hemodialisis Krisda	Yes	>=80%	Pusat Kesihatan Universiti (UTHO)	Yes	>=80%
Pusat Hemodialisis MAIJ	Yes	>=80%	Pusat Pakar Dialisis Traktif (Besut)	Yes	>=80%
Pusat Hemodialisis MAIWP-PICOMS (Jln Pahang)	No	<80%	Pusat Pakar Dialisis Traktif (Kuala Pilah)	Yes	>=80%
Pusat Hemodialisis MAIWP-PICOMS	Yes	>=80%	Pusat Pakar Tawakkal	No	<80%
Pusat Hemodialisis Manjung	Yes	>=80%	Pusat Perbadanan Islam (Segamat)	No	<80%
Pusat Hemodialisis Mawar (Kuala Pilah)	Yes	>=80%	Pusat Perkhidmatan Haemodialisis USIM	Yes	>=80%
Pusat Hemodialisis Mawar (Mantin)	Yes	>=80%	Pusat Perubatan Dialisis (Bangi)	No*	>=80%
Pusat Hemodialisis Mawar (Serian)	Yes	>=80%	Pusat Perubatan Dialisis (Dengkil)	No*	>=80%
Pusat Hemodialisis Mawar (Yong Peng)	Yes	>=80%	Pusat Perubatan Dialisis Semenyih	No	<80%
Pusat Hemodialisis Mawar Gemas	Yes	>=80%	Pusat Perubatan Premier HUKM	No	<80%
Pusat Hemodialisis Mawar Kuching	Yes	>=80%	Pusat Perubatan Universiti Kebangsaan Malaysia	Yes	>=80%
Pusat Hemodialisis Mawar N. Sembilan (Bahau)	Yes	>=80%	Pusat Rawatan Dialisis Ahmad Khalif	No	<80%
Pusat Hemodialisis Mawar N. Sembilan (Lukut)	Yes	>=80%	Pusat Rawatan Dialisis Farah Mahami	No	<80%
Pusat Hemodialisis Mawar N. Sembilan (Rantau)	Yes	>=80%	Pusat Rawatan Dialisis Fazwinna	Yes	>=80%
Pusat Hemodialisis Mawar N. Sembilan (Sepang)	Yes	>=80%	Pusat Rawatan Dialisis Fitra (Kuantan)	No	<80%
Pusat Hemodialisis Mawar N. Sembilan (Seputih)	Yes	>=80%	Pusat Rawatan Dialisis Fitra (Maran)	No	<80%
Pusat Hemodialisis Mawar N. Sembilan (Seremban)	Yes	>=80%	Pusat Rawatan Dialisis Fitra (Seri Perdana)	No	<80%

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# PARTICIPATING HAEMODIALYSIS CENTRES 2014 (con't)

Haemodialysis Centre	CC#	AR	Haemodialysis Centre	CC#	AR
Pusat Rawatan Dialisis Fitra Pekan	Yes	>=80%	Renal Dialysis Centre	Yes	>=80%
Pusat Rawatan Dialisis Fungates Superflow-NKF	Yes	>=80%	Renal Life Dialysis Centre	Yes	>=80%
Pusat Rawatan Dialisis Good Health-NKF (Kg Pandan)	Yes	>=80%	Renal Link (Penang)	Yes	>=80%
Pusat Rawatan Dialisis Hidayah	No	<80%	Renal Team Dialysis Centre (Ara Damansara)	Yes	>=80%
Pusat Rawatan Dialisis Islah (Batu Caves)	Yes	>=80%	Renal Therapy Services	Yes	>=80%
Pusat Rawatan Dialisis Islah (BM)	Yes	>=80%	Renal-Link (Kelantan)	Yes	>=80%
Pusat Rawatan Dialisis Islah (KL)	Yes	>=80%	Rotary Club of Johor Bahru Haemodialysis Centre	Yes	>=80%
Pusat Rawatan Dialisis Islah (Kota Bharu)	No	<80%	S.P. Menon Dialysis Centre (Klang)	No	<80%
Pusat Rawatan Dialisis Islah (Kuala Terengganu)	Yes	>=80%	S.P. Menon Dialysis Centre (Kuala Lumpur)	Yes	>=80%
Pusat Rawatan Dialisis Islah (Prima Sri Gombak)	Yes	>=80%	S.P. Menon Dialysis Centre (Petaling Jaya)	Yes	>=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)	Yes	>=80%	Sayang Dialysis Selayang	Yes	>=80%
Pusat Rawatan Dialisis Nefro Utama (Puchong)	Yes	>=80%	Seberang Jaya Hospital	Yes	>=80%
Pusat Rawatan Dialisis Nefro Utama (Setapak)	No	<80%	Segamat Hospital	Yes	>=80%
Pusat Rawatan Dialisis Puteri Zulaikha	Yes	>=80%	Selama Hospital	No	<80%
Pusat Rawatan Dialisis Tun Abdul Razak-NKF Kuantan	Yes	>=80%	Selayang Hospital (Paed)	Yes	>=80%
Pusat Rawatan Fitra (Muadzam)	Yes	>=80%	Selayang Hospital	Yes	>=80%
Pusat Rawatan Haemodialisis Wan Nong	No	<80%	Semporna Hospital	Yes	>=80%
Pusat Rawatan Hemodialisis Felina	Yes	>=80%	Sentosa Medical Centre	Yes	>=80%
Pusat Rawatan Hemodialisis Tunku Sarina	Yes	>=80%	Serdang Hospital	Yes	>=80%
Pusat Rawatan Perbadanan Islam (Kota Tinggi)	Yes	>=80%	Seremban Specialist Hospital	Yes	>=80%
Pusat Waqaf An-nur (Senawang)	Yes	>=80%	Seri Benut Dialysis	Yes	>=80%
Putera Bistari Dialysis Centre	Yes	>=80%	Seri Manjung Hospital	Yes	>=80%
Putra Haemodialysis Centre	No	<80%	Serian Hospital	Yes	>=80%
Putra Medical Centre	No	<80%	Setiu Hospital	Yes	>=80%
Putrajaya Hospital	Yes	>=80%	Sg Siput Hospital	Yes	>=80%
Putri Haemodialysis Centre (Ipoh)	Yes	>=80%	Sibu Hospital	Yes	>=80%
PWRM (BM) Dialysis Centre	Yes	>=80%	Sibu Kidney Foundation	Yes	>=80%
Quality Dialysis (Batang Berjuntai)	No	<80%	Sik Hospital	Yes	>=80%
Quality Dialysis Care (Bangi)	No	<80%	Sime Darby Medical Centre Parkcity	No	<80%
Quality Dialysis Care (Cheras)	Yes	>=80%	Sime Darby Medical Centre Subang Jaya	No	<80%
Quality Dialysis Care (Gurun)	Yes	>=80%	Simunjan Hospital	Yes	>=80%
Quality Dialysis Care (Jerantut)	No	<80%	Sinar Haemodialysis (Batu Pahat) Sdn Bhd	Yes	>=80%
Quality Dialysis Care (Kangar)	Yes	>=80%	Sinar Haemodialysis (Cawangan Batu Pahat)	Yes	>=80%
Quality Dialysis Care (Klang)	No	<80%	Sinar Hemodialisis (Melaka)	Yes	>=80%
Quality Dialysis Care (Kota Kinabalu)	Yes	>=80%	Sipitang Hospital	Yes	>=80%
Quality Dialysis Care (Meru)	Yes	>=80%	SJ Dialysis Centre (Bidor)	Yes	>=80%
Quality Dialysis Care (Pandang)	Yes	>=80%	SJ Dialysis Centre (Ipoh)	Yes	>=80%
Quality Dialysis Care (Sabak Bernam)	Yes	>=80%	SJ Dialysis Centre (Seberang Jaya)	Yes	>=80%
Quality Dialysis Care (Sg Besar)	Yes	>=80%	SJAM-KPS Haemodialysis Centre 1 (Raja Muda Musa)	Yes	>=80%
Quality Dialysis Care (Sg. Petani Selatan)	No	<80%	SJAM-KPS Haemodialysis Centre 11 (Shah Alam)	Yes	>=80%
Quality Dialysis Care (Sg. Petani Utara)	Yes	>=80%	SJAM-KPS Haemodialysis Centre 12 (Balakong)	Yes	>=80%
Quality Dialysis Care (Sg. Siput)	Yes	>=80%	SJAM-KPS Haemodialysis Centre 2 (Klang)	No	<80%
Quality Dialysis Care (Tanjung Karang)	Yes	>=80%	SJAM-KPS Haemodialysis Centre 3 (Banting)	No	<80%
Quality Dialysis Care (Wangsa Maju)	Yes	>=80%	SJAM-KPS Haemodialysis Centre 5 (Rawang)	Yes	>=80%
Queen Elizabeth Hospital	Yes	>=80%	SJAM-KPS Haemodialysis Centre 6 (Kuala Selangor)	Yes	>=80%
Raja Perempuan Zainab II Hospital	No	<80%	SJAM-KPS Haemodialysis Centre 8 (Sibu)	Yes	>=80%
Raja Permaisuri Bainun Hospital	Yes	>=80%	SJAM-KPS Haemodialysis Centre 9 (Raub)	No	<80%
Ranau Hospital	Yes	>=80%	SJAM-KPS Pusat Hemodialisis Centre 10 (Bintulu)	Yes	>=80%
Raub Dialysis Centre	Yes	>=80%	SJAM-KPS Pusat Hemodialisis Centre 15 (Ipoh)	Yes	>=80%
Rawatan Dialisis Bukit Tinggi	Yes	>=80%	SJAM-KPS Pusat Hemodialisis Pandan (Station17)	No	<80%
Rawatan Hemodialisis Persatuan Persemdian Hindu	Yes	>=80%	SJAM-KPS Pusat Hemodialisis Serdang Raya (Station14)	Yes	>=80%
Rejang Medical Centre	Yes	>=80%	SJAM-KPS Pusat Hemodialisis Tasik Puteri	Yes	>=80%
Renal Associates	Yes	>=80%	Slim River Hospital (Tanjong Malim)	Yes	>=80%
Renal Care (Ipoh Specialist)	Yes	>=80%	Smartcare Dialysis Centre (Subang Jaya)	Yes	>=80%
Renal Care (Kedah)	Yes	>=80%	Smartcare Dialysis Clinic (Cheras)	Yes	>=80%
Renal Care Dialysis Services	Yes	>=80%	Sri Aman Hospital	Yes	>=80%

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# PARTICIPATING HAEMODIALYSIS CENTRES 2014 (con't)

Haemodialysis Centre	CC#	AR	Haemodialysis Centre	CC#	AR
Sri Kota Medical Centre	Yes	>=80%	Tengku Anis Hospital	Yes	>=80%
Subang Dialysis Centre	No	<80%	Tenom Hospital	Yes	>=80%
Sultan Abdul Halim Hospital	Yes	>=80%	The Kidney Dialysis Centre (1)	No	<80%
Sultan Haji Ahmad Shah Hospital	Yes	>=80%	The Kidney Dialysis Centre (2)	Yes	>=80%
Sultan Ismail Hospital (Paed)	Yes	>=80%	The Nayang-NKF Dialysis Centre	Yes	>=80%
Sultan Ismail Hospital	Yes	>=80%	The Penang Community HD Society	Yes	>=80%
Sultanah Aminah Hospital	Yes	>=80%	Timberland Medical Centre	Yes	>=80%
Sultanah Bahiyah Hospital	Yes	>=80%	Total Kidney Care Haemodialysis	Yes	>=80%
Sultanah Nur Zahirah Hospital	No	<80%	TSC Renal Care	Yes	>=80%
Sungai Bakap Hospital	Yes	>=80%	Tuanku Ampuan Najihah Hospital	Yes	>=80%
Sungai Buloh Hospital	Yes	>=80%	Tuanku Fauziah Hospital	Yes	>=80%
Sunway Medical Centre (2)	No	<80%	Tuanku Ja'afar Hospital (Paed)	Yes	>=80%
Sunway Medical Centre	Yes	>=80%	Tuanku Ja'afar Hospital	Yes	>=80%
Superkids Trinity-NKF Dialysis Centre	Yes	>=80%	Tuaran Hospital	Yes	>=80%
Systemic Dialysis Centre (2)	No	<80%	Tulips Dialysis Centre	Yes	>=80%
Systemic Dialysis Centre	Yes	>=80%	Tumpat Hospital	Yes	>=80%
Syukur Dialisis (Petaling Jaya)	Yes	>=80%	Tung Shin Hospital & Yayasan Nanyang Press	Yes	>=80%
Syukur Dialisis (Puchong)	Yes	>=80%	Tung Shin Hospital	No	<80%
Syukur Dialisis (Shah Alam)	Yes	>=80%	Unit Hemodialisis Komuniti Kodiang	Yes	>=80%
Taiping Hospital	Yes	>=80%	Universiti Kebangsaan Malaysia Bangi	Yes	>=80%
Taiping Medical Centre	Yes	>=80%	Universiti Sains Malaysia Hospital	No	<80%
Tambunan Hospital	Yes	>=80%	University Malaya Medical Centre	No	<80%
Tampin Hospital	Yes	>=80%	University Malaya Specialist Centre	No	<80%
Tan Sri Muhyiddin Charity Dialysis Centre	No	<80%	Woh Peng Cheang Seah	Yes	>=80%
Tanah Merah Hospital	Yes	>=80%	Yakin Haemodialysis	Yes	>=80%
Tangkak Hospital	Yes	>=80%	Yakin Jaya Haemodialysis	No	<80%
Tangkak Lions Renal Centre	Yes	>=80%	Yan Hospital	Yes	>=80%
Tanjung Karang Hospital	Yes	>=80%	Yayasan Dialysis Pendidikan Akhlak Perak-NKF Ipoh	Yes	>=80%
Tapah Hospital	Yes	>=80%	Yayasan Kebajikan SSL Puchong	Yes	>=80%
Tawau Hospital	Yes	>=80%	Yayasan Kebajikan SSL	Yes	>=80%
Teluk Intan Hospital	Yes	>=80%	Yayasan Rotary Kluang	Yes	>=80%
Temenggong Seri Maharaja Tun Ibrahim Hospital	Yes	>=80%	YKN Dialisis Kota Bharu	Yes	>=80%
Tenang Haemodialysis Centre	Yes	>=80%	YKN Dialisis Kuala Pilah	Yes	>=80%
Tenang Haemodialysis Jasin	No	<80%	YKN Dialisis Rompin	No	<80%
Tengku Ampuan Afzan Hospital (Paed)	Yes	>=80%	YKN Dialisis Sabah	Yes	>=80%
Tengku Ampuan Afzan Hospital	Yes	>=80%	Zaharah Dialisis Center (Jitra)	No	<80%
Tengku Ampuan Jemaah Hospital	Yes	>=80%	Zhi En Dialysis Centre	Yes	>=80%
Tengku Ampuan Rahimah Hospital	Yes	>=80%			

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## PARTICIPATING PD CENTRES 2014

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

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## PARTICIPATING TRANSPLANT FOLLOW-UP CENTRES 2014

Renal Transplant Follow-Up Centre	CC#	AR	Renal Transplant Follow-Up Centre	CC#	AR
Assunta Hospital	Yes	>=80%	Queen Elizabeth Hospital	Yes	>=80%
Bintulu Hospital	Yes	>=80%	Raja Perempuan Zainab II Hospital	Yes	>=80%
Duchess of Kent Hospital	Yes	>=80%	Raja Permaisuri Bainun Hospital	Yes	>=80%
Dungun Hospital	Yes	>=80%	Sarawak General Hospital	Yes	>=80%
Fan Medical Renal Clinic	No	No AR	Segamat Hospital	Yes	>=80%
Hospital Enche' Besar Hajjah Khalsom	Yes	>=80%	Selayang Hospital	Yes	>=80%
Hospital Sultanah Nora Ismail	Yes	>=80%	Serdang Hospital	Yes	>=80%
Kemaman Hospital	Yes	>=80%	Sibu Hospital	Yes	>=80%
Klinik Dr Choo & Liew	Yes	>=80%	Sultan Haji Ahmad Shah Hospital	Yes	>=80%
KPJ Ampang Puteri Specialist Hospital	No	<80%	Sultan Ismail Hospital (Paed)	Yes	>=80%
Kuala Lumpur Hospital (Paed)	Yes	>=80%	Sultan Ismail Pandan Hospital	Yes	>=80%
Kuala Lumpur Hospital	Yes	>=80%	Sultanah Aminah Hospital	Yes	>=80%
Labuan Hospital	Yes	>=80%	Sultanah Bahiyah Hospital	Yes	>=80%
Melaka Hospital	Yes	>=80%	Sultanah Nur Zahirah Hospital	Yes	>=80%
Mersing Hospital	Yes	>=80%	Taiping Hospital	Yes	>=80%
Miri Hospital	Yes	>=80%	Tawau Hospital	No	<80%
Pakar Sultanah Fatimah Muar Hospital	Yes	>=80%	Tg. Ampuan Afzan Hospital	Yes	>=80%
Pontian Hospital	Yes	>=80%	Tg. Ampuan Rahimah Hospital	Yes	>=80%
Prince Court Medical Centre	Yes	>=80%	Tuanku Ja'afar Hospital	Yes	>=80%
Pulau Pinang Hospital	Yes	>=80%	Universiti Sains Malaysia Hospital	Yes	>=80%
Pusat Perubatan Universiti Kebangsaan Malaysia	Yes	>=80%	University Malaya Medical Centre	Yes	>=80%

\* CC = Compliance Certificate AR = Annual treatment return

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# FOREWORD

After a significant delay, the 22nd MDTR report is finally out, thanks to everyone who had made this possible. We now have a total of 758 dialysis centres in the whole nation; 714 of which provide In-Centre Haemodialysis (ICHHD) services and 44 provide PD services. Additionally, three public renal transplant centres and several others which provide outpatient post transplant follow-up services submitted data related to renal transplant outcomes.

The dominant role provided by the private sector in ICHHD services continue to strengthen. 54.3% of all the dialysis centres were operated by the private sector compared to 20.5% in NGO and 25.1% public sector respectively.

The remarkable growth in the dialysis units should rightly be accompanied by similar increase in commitments to maintain high quality standards of care and compliance with existing regulatory requirements. As data submission to National Renal Registry (NRR) is mandated by the regulation which governs haemodialysis provision, it is important to highlight the gap between the various providers on the compliance rate with data submission to NRR. In 2014, only 61.2% of the private HD centres were compliant with data submission compared to 83.3% in NGO sector and 91.5% MOH centres.

With 7055 new patients and almost 35,000 prevalent patients recorded in 2014, it became clear that the number of patients will not just continue to increase but did so faster than what was previously predicted by the health authority.

Paradoxically and unfortunately, these phenomenal growth of dialysis provision especially for haemodialysis patients, was not accompanied by a corresponding rise in the number of kidney transplants performed in the country. Worse still, the incident and prevalent number of transplant patients were lower in 2014 compared to the previous year. This reduction partly resulted from a significant decrease of the number of patients returning home from transplantation performed overseas and the continued loss of transplanted kidneys due to various reasons.

On dialysis funding, there is a disturbing trend of a reduction in the proportion of government funding (53.6%) compared to 60% four years previously. There is higher percentage of self funded dialysis treatment for new patients (31.2%) compared to previous years. Whether this is real or otherwise will require further investigations. Despite the high number of prevailing HD units and the application of zoning rule by the regulator, at least 57 new HD centres were recorded in 2014, 44 of which were established by the private sector. Peritoneal Dialysis continued to receive support from public and alternative funding agencies as a viable alternative form of renal replacement therapy. Of the incident patients, PD utilization has increased to 13% in 2014 compared to 10-12 percent previously. With the strong support from all sectors, together with increased awareness amongst the public, patients, healthcare staffs and funding agencies, it is possible that the publicly funded PD preferred policy, will see stronger future role for the modality in this country.

Last but not least, on behalf of the Advisory Committee of National Renal Registry, I wish to take this important opportunity to acknowledge the continuing supports and cooperation given by everyone, especially the data providers, biostatistician, all the Expert Panel members for various chapters, the Editors, Financial Sponsors, Ministry of Health (Malaysia), Malaysian Society of Nephrology and all the management staffs of National Renal Registry, without which, this useful annual report will not meet the readers.

Thank you

**Datuk Dr Ghazali Ahmad**  
Chairman  
Advisory Committee 2014 - 2016  
National Renal Registry



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# EXECUTIVE SUMMARY

In 2014, there were 34,767 patients receiving dialysis in Malaysia, and this was a two and a half fold increase from 13,356 in 2005. While the new intake of dialysis patients was only 3,167 in 2005, this had more than doubled to 7,055 in 2014. The equivalent incidence and prevalence of patients on dialysis were 234 and 1,155 per million population in 2014. Among the incident dialysis patients, 13.4% were on peritoneal dialysis (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 change in dialysis population in Malaysia as patients above 55 years old made up 58% of all new dialysis patients in 2014 versus 52% in 2005. A staggering 61% of end stage kidney disease was reported to be caused by diabetes mellitus in 2014, versus 55% in 2005.

The increase in haemodialysis (HD) centres was mainly contributed by the private dialysis centres which had almost tripled over the last 10 years. Non-governmental organisation (NGO) centres had increased by 50% over the same period of time, while the growth in Ministry of Health (MOH) had plateaued since 2006. Most of the increases in the private occurred in the more economically developed west coast states of Peninsular Malaysia. Although the public, NGO and private sector provided 29%, 22% and 49% of overall dialysis treatment in 2014 respectively, the government provided 62.3% of total funding for dialysis. However, 85% of new dialysis patients younger than 20 years of age were on government-funded dialysis programmes.

The annual death rate on dialysis in 2014 was 12%. In 2014, the death rate was 12% among haemodialysis patients while peritoneal dialysis patients had an annual death rate of 16%. 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.

In 2014, 91% of HD patients and 82% of PD patients received Erythropoiesis Stimulating Agents. However, the concern was that a substantial percentage of these patients still received blood transfusions (12 to 18%). In 2014, more than 70% of dialysis patients achieved calcium-phosphate-product  $< 4.5 \text{ mmol}^2/\text{L}^2$ . However, more than 45-49% of dialysis patients were at risk of low bone turn over disease with iPTH  $< 150 \text{ pg/ml}$ . Majority (92% of HD and 86% 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. PD patients consistently have lower HCV prevalence compared to HD.

2014 marked the first time there were 9 PD centres with more than 150 PD patients. There were 8 private PD centres reported to NRR and one of the private PD centres has more than 30 patients. In 2014, 13.3% 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 only 63 kidney transplantations done in the country in 2014. The transplantation rate had dropped to the lowest rate of 3 per million population compared to 6 per million in 2005. The patient survival rates were 96%, 91% and 84% at 1- year, 5-years and 10-years respectively. Graft survival rate at 1-year was 93%, 5-years 83% and 10-years 67%.