Table S1. Comparison of clinical characteristics of incident cases of end-stage renal diseases (ESRD) between Taiwan and those in the USA.

|  |  |  |  |
| --- | --- | --- | --- |
| Categories | Taiwan | | USA |
| 2001-2004  incident ESRD  on HD\* | 2007  incident ESRD† | 2007  incident ESRD  (USRDS)‡ |
| Number of cases (%) | 23551(100) | 8922 | 108891(100) |
| Male (%) | 11 235(47.7) | 4415(49.5) | 60975(56.0) |
| Mean age (years) | 61.5 | 62.90(14.4) | 62.7 |
| Age group, no (%) |  |  |  |
| 0-19 | Not included | Not included | 1245(1.1) |
| 20–44 | 2787(11.8) | 903(10.2) | 13504(12.4) |
| 45–64 | 9912(42.1) | 3625(40.9) | 41239(37.9) |
| ≥65 | 10845(46.0) | 4345(49.0) | 52903(48.6) |
| HD/PD/KT, (%) | 100/-/- | 85/14/0.4 | 91.8/5.8/2.4 |
| No. (%) with diabetic nephropathy as major cause | 10096(42.9) |  | 47778(43.9) |
| Mean of clinical data at beginning of RRT |  |  |  |
| Creatinine, mg/dL | 11.2 | - | 6.4 |
| Albumin, g/dL | 3.2 | - |  |
| Haematocrit, % | 24.0 | - | 30.3 |
| eGFR, mL/min/1.73 m2 | 5.0 | - | 10.9 |
| Comorbidity at beginning of RRT (%) |  | - |  |
| No. cases with clinical data | 13625(57.9) | - |  |
| Co-morbidities, no. (%) |  |  |  |
| Diabetes mellitus | 6821(49.4) | 4952(55.5) |  |
| Hypertension | 9064(66.5) | 7654(85.8) |  |
| Heart failure | 2496(18.3) | 1898(21.3) |  |
| Ischaemic heart diseases | 1549(11.4) | 2207(24.7) |  |
| Cerebrovascular diseases | 870(6.4) | 1445(16.2) |  |
| Malignancies | 535(3.9) | 445(5.0) |  |
| Liver cirrhosis | 795(5.8) | 173(1.9) |  |
| 1-year crude mortality, % | 12.5 | 12.4 | 25% in the 2004 cohort (26% in HD,15% in PD) |

Abbreviations: HD, hemodialysis; PD, peritoneal dialysis; KT, kidney transplantation; eGFR, estimated glomerular filtration rate (calculate by modified Modification of Diet in Renal Disease [MDRD] abbreviated equation [ref. 35]); RRT, renal replacement therapy (including HD, PD and KT); USRDS, United States Renal Data System.

\*Data were from the Taiwan society of Nephrology (ref 36), in which the clinical data and comorbidities were reported by physicians providing direct care.

†Data were calculated from the National Health Insurance Research Database (NHIRD) of Taiwan used in this study. The RRT modality (HD, PD or KT) received by individual patient was determined at the end of 3 months after first ESRD registration. Comorbidities were identified by claim data through ICD-9 (International Classification of Diseases, 9th edition) codes: diabetes mellitus (250, 357.2, 362.0X, 366.41), hypertension (362.11, 401.X-405.X, 437.2), heart failure (398.91, 425,428, 402.X1, 404.X1, 404.X3), ischaemic heart diseases (410-414), cerebrovascular diseases (430-438), malignancies (140-208), liver cirrhosis (571.2, 571.5, 571.6).

‡USRDS data, from ref 2

Table S2. Comparison of clinical characteristics for prevalent hemodialysis (HD) patients between Taiwan and those in North America.

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| Categories  Data sources | Taiwan | North America |
| NHIRD\* | DOPPS III† |
| Calendar years | 2006-2007 | 2005-2008 |
| No. of cases (%) | 62731(100) | 2212(100) |
| Male (%) | 30099(48.0) | 55.2 |
| Age (years), mean ± SD | 58.7±14.6 | 62.0±15.4 |
| Years on dialysis; mean±SD | 2.8±2.8 | 4.1±4.1 |
| Years on dialysis; median | 1.9 | 2.8 |
| Co-morbidities, % |  |  |
| Diabetes mellitus | 49.7 | 53.3 |
| Hypertension | 67.9 | 88.2 |
| Cerebrovascular diseases | 15.0 | 18.5 |
| Ischaemic heart diseases | 25.6 | 67.4 |
| Peripheral vascular dis. | 6.2 | 33.4 |
| Other cardiovascular disease | 8.6 | 36.4 |
| Malignancies, excluding skin cancer | 6.1 | 12.2 |
| Lung diseases | 11.4 | 19.0 |
| Gastrointestinal bleeding | 3.2 | 6.1 |
| Liver cirrhosis | 1.5 | - |

\* Data were calculated from the National Health Insurance Research Database (NHIRD) of Taiwan used in this study. Comorbidities were identified by ICD-9 (International Classification of Diseases, 9th edition) codes: (250, 357.2, 362.0X, 366.41), hypertension (362.11, 401.X-405.X, 437.2), cerebrovascular diseases (430-438), ischaemic heart diseases (410-414), peripheral vascular disease(440-444, 447, 557), other cardiovascular disease (393-398; 425 -427; 416), malignancies (140-208), excluding skin cancer (172, 173), lung diseases (490-496), gastrointestinal bleeding (578), liver cirrhosis (571.2, 571.5, 571.6)

†The DOPPS (Dialysis Outcomes and Practice Pattern Study) III is the third wave of collection for HD study, in which 301 facilities were randomly chosen from the U.S., Canada, Japan, Australia, New Zealand, and 7 EU countries during 2005-2008. Within each participating facility, 20–40 patients were randomly selected proportional to size, and the co-morbidity data were abstracted through review of medical records. The data of Northern America (the US and Canada) were used in this Table (ref. 37).