

Poster Presentations



The comorbidity scoring systems for predicting survival in elderly dialysis patients

Chih-Chiang Chien

Chi-Mei Medical Center, Taiwan

The worldwide elderly dialysis population has grown significantly and is expected to have more comorbid conditions and shorter life expectancies than the general elderly population. Predicting outcomes for this population is important for decision-making. Our study is to examine the comorbidity index for outcome predictability in elderly dialysis patients. In this population-based cohort study, we enrolled elderly patients who started maintenance dialysis in Taiwan. Further analyses of all-cause mortality and life expectancy in these groups with different comorbidity index score were performed. As results, a total of 21,043 incident dialysis patients divided into 4 groups by the comorbidity index score (intervals ≤ 3 , 4-6, 7-9, ≥ 10) were analyzed. During a 10-year follow-up, 11272 (53.55%) patients died. Kaplan-Meier curves showed significant survival differences between groups (log-rank: $P < 0.001$). After stratification by age, life expectancy was significantly longer in groups with lower the comorbidity index scores. In conclusion, the comorbidity index is a strong predictor of mortality in elderly dialysis patients.

Biography

Dr. Chien Chih-Chiang, Associate Professor and attending physician, department of nephrology, Chi-Mei Medical Center, Taiwan. He grew up in Taichung, Taiwan and received his Bachelor's degree of medicine from the Chung Shan Medical University in 2001. After graduation, he received resident physician and fellow physician training in division of nephrology, department of internal medicine, Taipei Veterans General Hospital, Taiwan. Since 2006, he works as an attending physician in department of nephrology, Chi-Mei Medical Center, Taiwan. In the meantime, he began his life long investigation of epidemiology and mortality of patients with end-stage renal disease and dialysis.

ccchien58@yahoo.com.tw

Upper gastrointestinal bleeding in end-stage renal dialysis patients with chronic liver disease

Chia-Ling Wang and **Chih-Chiang Chien**

Chi-Mei Medical Center, Taiwan

End-stage renal disease (ESRD) and chronic liver disease (CLD) both increase the risk for upper gastrointestinal (UGI) bleeding. The prevalence of ESRD and CLD are high in Taiwan. The aim of this study was to evaluate the incidence, risk factors, and categories of UGI bleeding in ESRD dialysis patients. We enrolled 42,457 incident ESRD incident dialysis patients. These patients were followed until death, dialysis cessation, or end of database. Cumulative incidence of UGI bleeding after initiation of dialysis was calculated using Kaplan-Meier methods. Predictors for UGI bleeding were determined using Cox models. During the follow-up period, 5,528 patients had a UGI bleeding. Male, elderly, receiving hemodialysis (HD) and patient with comorbidities had a higher rate of UGI bleeding. The 1-, 3-, 5- and 7-year cumulative incidence rate of UGI bleeding were 9.8%, 21%, 25.3% and 28% in patients with liver cirrhosis (LC) on HD, 5.8%, 16.2%, 22.2% and 24.4% in patients with LC on PD, 3.7%, 9.2%, 13.2% and 16.4% in patients without LC on HD, and 2.1%, 5.5%, 8.2% and 10.4% in patients without LC on PD (log-rank: $p < 0.001$). After multivariate adjustment, prior gastrointestinal bleeding (HR 1.731, 95% CI, 1.635-1.834), LC (1.682, 95% CI, 1.524-1.856), alcoholism liver disease (1.536, 95% CI, 1.635-1.834), and receiving HD (1.316, 95% CI, 1.153-1.502) were independently risks for UGI bleeding in ESRD dialysis patient. Gastric ulcers were found to be the most common source of bleeding (50.3%), while bleeding resulting from a gastrojejunal ulcer was least frequent. In conclusion, ESRD dialysis patients had a higher risk for UGI bleeding, especially those with prior gastrointestinal bleeding, LC, and alcoholism liver disease. In addition, receiving HD is a strong predictor for UGI bleeding. More attention should be paid to select dialysis modality, especially in high risk patients.

Biography

Chia-Ling Wang, Nurse Practitioner, department of internal medical, Chi-Mei Medical Center, Taiwan. She grew up in Tainan City, Taiwan and graduated from Chinese Medical University in 2001 major in Nursing. After graduation, she works in the cardiovascular surgery ward as a nurse in Taipei Veterans General Hospital, Taiwan, 2001-2007. Since 2007 she works in the department of internal medicine, Chi-Mei Medical Center, Taiwan as a Nurse Practitioner. In the meantime, she is devoted to the nursing care for the patient with end-stage renal disease and dialysis.

belle5184@yahoo.com.tw

Spinal tuberculosis in end-stage renal disease dialysis patients

Chia-Ying Lin

Chi-Mei Medical Center, Taiwan

Patients with end-stage renal disease (ESRD) have an increased risk of tuberculosis (TB). Approximately, 10–20% of patients with extrapulmonary TB are skeletal involvement. In addition, spinal TB accounts more than half of skeletal TB cases. Aim of this study was to determine the rate, risks and outcome of spine TB in ESRD patient. We examined records of ESRD patients who initiated dialysis between 1999 and 2007. Patients were followed from the initiation of dialysis to spinal TB, death, end of dialysis, or December 31, 2008. The cumulative proportion of patients with spinal TB and of survivors after spinal TB were calculated using the Kaplan-Meier method. Cox proportional hazards models were used to identify the risk factors for spinal TB. A total of 67,993 incident ESRD dialysis patients were examined in this study. During the follow-up period, 89 patients had a spinal TB. The overall incidence of spinal TB in ESRD dialysis patient was 32.43 / 10,000 patient-years. Being female was associated with 85% higher risk (HR 1.85, 95% CI: 1.19-2.90). Patients \geq 65 years old had more than 2 times the risk than did those 18-44 years old (HR 2.35, 95% CI: 1.04-5.34). The strongest predictor of spinal TB after dialysis was prior TB history (HR 3.86, 95% CI: 1.56-9.55). Overall in-hospital mortality was 19.1 %. The cumulative survival rates after spinal TB was only 65.5% at one year. In conclusion, being female, elderly and prior TB history were independent risk factors for spinal TB in dialysis group. The mortality was high after spinal TB. Clinicians should be aware of back pain in ESRD patients, especially in TB endemic areas such as Taiwan, because of high mortality rate of this disease.

Biography

Chia-Ying Lin, Nurse Practitioner, Department of internal medicine, Chi-Mei Medical Center, Taiwan. She grew up in Tainan City, Taiwan, and graduated from National Cheng Kung University in 2005 with a major in Nursing. After graduation, she works in a cardiology ward as a nurse in National Cheng Kung Hospital, Taiwan, 2005-2007. Since 2007 she has been working in the department of internal medicine, Chi-Mei Medical Center, Taiwan, as a Nurse Practitioner. In the meantime, she is devoted to the nursing care for patients with end-stage renal disease on dialysis.

joylin0526@gmail.com

Physical and mental fitness in hemodialysis patients: A systematic review

Sapna Chandgadkar, H G Virani and Amol Mahaldar

Goa Engineering College, India

People with End Stage Kidney Disease (ESKD) on Hemodialysis (HD) experience multiple catabolic processes, including loss of albumin and amino acids during dialysis, metabolic derangements, and changes in skeletal muscle associated with conditions of muscle disuse. These changes result in muscle atrophy (loss of lean muscle mass). The presence of neurogenic (muscle atrophy or loss associated with nerve disorder), myogenic (damage intrinsic to the muscle), and mixed (neurogenic and myogenic) changes intrinsic to the skeletal muscle in people with ESKD on HD may further compromise the integrity of the motor-unit complex and contribute to muscle atrophy. The paper is a systematic review of the interventions to improve fitness levels of patients on maintenance HD. The results of the meta-analysis indicate the following: The survival of patients on maintenance haemodialysis is increased by improving their physical performance. Chronic Dyspnoea is one of the most common symptoms of patients on haemodialysis and is intractable to therapy due to its multifactorial origin. Dyspnoea is due to systemic inflammation and is caused by a combination of – anaemia, malnutrition and muscle wasting. The 6-minute walk test can be used to classify patients into various fitness levels as an OPD procedure and help patients get an objective evaluation of their fitness.

Biography

Sapna Chandgadkar is a master's Student at Goa Engineering College. She is working with Dr Virani, HOD, Electronics Engineering and Dr Mahaldar, HOD, Nephrology, Manipal Hospital. Their research focuses on improving the quality of life of patient on hemodialysis, in emerging markets. The objective is to develop a Markov Model of the interventions that could help patients on Hemodialysis to improve their fitness levels a step at a time.

ensapnavision1@gmail.com

Notes:

E-Poster



An audit involving questionnaires in CKD outpatients: Are doctors meeting patient education standards regarding disease severity and progression at two Birmingham hospitals?

Katie Allen

University of Birmingham Medical School, United Kingdom

Background: The GMC requires all consultations to be a partnership between the doctor and patient whereby information is shared effectively, regarding likely disease progression. Since CKD can entail life-changing complications including dialysis, the importance of good patient understanding is of paramount importance. Despite this, it is often noted that patients are unsure of the reason for their clinic attendance and their ideas about their renal disease severity and progression dramatically contrast with their doctor's views.

Methods: At BHH and GHH, pre and post-appointment questionnaires were distributed at general renal clinics. Differences in patients' thoughts on their likelihood of needing dialysis in 2 years and their understanding of the purpose of their appointment were compared by the before and after time points. Predictions of disease progression were extrapolated from the doctors' graphs plotting eGFR. To determine if education standards are being met, matching of patient's thoughts and those from the medical perspective was looked for. The two hospitals were compared.

Conclusions and Discussion: Overall, at both hospitals, education levels were suboptimal since for all outcomes far fewer than 100% of patients reported the maximum understanding levels or had thoughts matching their actual disease status or doctors' predictions. Some quality education is however taking place in some appointments because the percentage of patients whose idea of their disease severity matched their actual renal disease category by eGFR almost doubled after the appointment compared to before. This is positive and reassuring, but 38% of patients still leaving their appointment in non-agreement means there is vast room and need for improvement in the information delivery taking place. Great diversity was found in understanding of their reason for clinic attendance, for example 8% of patients reported a decrease in their understanding after the appointment whilst for others it improved, further highlighting that changes are required.

Biography

Katie Allen is a medical student at the University of Birmingham, currently rotating around hospital placements throughout the West Midlands. she has completed this audit under the supervision of Dr Hugh Rayner, nephrology consultant at the Heart of England NHS Foundation Trust. As the lead for the "Please Write to Me" campaign, he believes strongly in the importance of effective communication with patients and the necessity of investing time to improve the relevant standards. The ongoing valuable opportunities that being a student provides to observe clinical practice involving a vast range of doctors, clinical settings and patient populations, has allowed me to develop an interest in the quality of patient education, particularly for long-term conditions.

katieelizabethallen@hotmail.co.uk

Accepted Abstracts



Treatment outcomes of direct-acting antiviral (DAA) therapy among chronic kidney disease (CKD) and post kidney transplant patients with hepatitis c virus (HCV) infection: Single center experience

Shena Jo A Capucion and Jamias Jade D

National Kidney and Transplant Institute, Philippines

Background: Hepatitis C virus (HCV) infection is common among chronic kidney disease (CKD) and kidney transplant recipients. Direct acting antiviral (DAA) regimens has been demonstrated to be effective with high sustained virological response (SVR) rates and tolerated in the general population. Data is limited and remains to be confirmed among CKD and kidney transplant recipients.

Objectives: The study aims to investigate treatment outcomes of DAA therapy among CKD and kidney transplant patients with hepatitis C infection. Specifically, it seeks to describe demographics, determine SVR rates, changes in laboratory values, and adverse effects with DAA therapy.

Methods: The study employed a retrospective observational study design. It included all cases of CKD and kidney transplant recipients with chronic HCV infection who are >18-year-old on DAA Therapy at National Kidney and Transplant Institute, Philippines from December 2015 to December 2016. Descriptive analysis of treatment outcomes, changes in laboratory values, and adverse events.

Results: Twelve patients were included, 7 (58%) CKD and 5 (42%) kidney transplant recipients. All patients (100%) had SVR 12. Changes in laboratory values during treatment included; (1) mean increase in creatinine of 0.3 mg/dL vs 0.04 mg/dL, (2) mean decline in hemoglobin of 2 mg/dL vs 1.5 mg/dL, in platelet of $18 \times 10^3/\mu\text{L}$ vs. $7 \times 10^3/\mu\text{L}$, in ALT levels of 31 U/L vs 27 U/L, and in bilirubin 0.5 mg/dL vs 0.12 mg/dL in CKD and post kidney transplant recipients respectively. One (8.3%) kidney transplant recipient had disorientation but did not lead to treatment discontinuation.

Conclusions/Recommendations: Our study showed an SVR12 rate of 100% in both CKD and kidney transplant recipients. Majority did not experience adverse effects during treatment. Further larger studies are needed to validate our findings.

shenajocapucion_md@yahoo.com

The role of Kidney Injury Molecule-1, Interleukin-18 and Glutathione-S-Transferase-II in Paediatric HIVAN

Louansha Nandlal

University of KwaZulu-Natal, South Africa

HIV-associated nephropathy (HIVAN) in sub-Saharan Africa is a significant cause of morbidity and mortality in children. Early detection of kidney injury is essential to avert permanent damage and delay progression of kidney injury. Kidney biopsy is presently the gold standard for the diagnosis of focal segmental glomerulosclerosis (FSGS) however, it is invasive with attendant complications, and may not be representative due to sampling error. Also, serum creatinine is an insensitive and non-specific marker for the diagnosis of various kidney diseases, particularly in HIV-infected patients. Therefore, the need for a non-invasive approach using additional urinary biomarkers such as KIM-1, IL-18 and GST (π) for the early detection of FSGS, particularly in paediatric HIVAN, is urgently warranted. The study group comprised of 34 children; 13 with HIVAN and 21 with idiopathic FSGS. The control groups were 19 HIV positive and 16 HIV negative children with no kidney disease. Urine samples collected from these 69 children were stored at -80°C . Urinary concentrations of KIM-1, IL-18 and GST (π) were quantified using Pro RBM Kidney Toxicity Assay (Panel 1), a Bio-Plex[®] Multiplex Immunoassay system which utilizes Luminex xMAP technology using a bead-based flow cytometric platform dedicated to multiplex analysis. The data of each sample was collected and analysed using a BioPlex 200 instrument equipped with Bio-Plex Manager[™] analysis software.

A significant increase in urinary KIM-1 levels were observed in the HIVAN group compared to the control groups viz., HIV positive ($p=0.0039$) and HIV negative ($p=0.0438$). There was no significant increase in KIM-1 levels between the idiopathic FSGS group and the control group ($p=0.0737$ and $p=0.1757$) respectively. No statistical significant differences were noted in urinary IL-18 and GST- π levels across all study groups. Urinary KIM-1 levels are significantly elevated in children with HIVAN and may be a useful biomarker to detect kidney disease in HIV-1 infected children.

loun0406@gmail.com

Notes:

Somatotypes of patients with prostate adenoma

Nikolay Yu Klimov

Krasnoyarsk State Medical University, Russia

Urgency: One of the most common diseases in men in the second period of adulthood, in elderly and old ages is "Benign prostatic hyperplasia (BPH)." Moreover, if at the age of about 40-49 years, it occurs in 11.3% of men, after 80 years it is found in 95.5%. The etiology of prostate adenoma (BPH) exists in the form of hypotheses and it's in many respects controversial.

Objective of the research: To establish the most common somatotype of patients with prostatic adenoma (PA) according to the index of Tanner and Rees-Eysenck body index.

Materials and methods: We examined 150 patients with morphologically confirmed diagnosis who were operated in the urology departments of Krasnoyarsk hospitals. The patients' age was 61-74 years (mean age 67, $7 \pm 1, 3$). Standard anthropometry was made to all of them in 27 parameters with the calculation of osteometric indices of Rees-Eysenck and Tanner according to the known formulas. Anthropometric data taken from the healthy men of the same age were used as a comparison group. Statistical data management was made using the Student's test and χ^2 . Differences were considered significant at $p < 0.05$.

Results: Determination of patient somatotype by Rees-Eysenck index showed that men of pyknic somatotype made up 47,4% (men of the population - 78,6%; $P < 0,05$), normosthenic type -40,6% (13,9%; $P < 0,05$), asthenic type - 12% (7,5%; $P < 0,05$). When comparing the frequency of somatotypes among patients with PA and men of the population there is a significant difference. Patients with BPH are presented in the majority by pyknic and normosthenic types, while among men of the population the pyknic somatotype considerably prevails. While identifying patient somatotypes by the index of Tanner it was found out that gynaecomorphic men amount 80,8% (men of the population - 17,2%; $P < 0,05$), mesomorphic ones - 17,6% (66,6%; $P < 0,05$) and andromorphic group made up only 1,6% (16,2%; $P < 0,05$). In comparison with the population values there are striking differences. Gynaecomorphic men are in the majority among the patients and as for the andromorphic men - they are almost absent.

scrubs22@yandex.ru

Acute Kidney Injury and critical limb ischaemia associated with the use of the so called “legal high” 3-Fluorophenmetrazine

Michael Fawzy¹, Wei San Wong-Morow¹, Anthony Beaumont¹ and Chris KT Farmer^{1,2}.

¹Kent and Canterbury Hospital, East Kent Hospitals University NHS Foundation Trust, United Kingdom

²University of Kent, United Kingdom

Drugs previously known as ‘legal highs’ also referred to as ‘research chemicals’, ‘new psychoactive substances’ (NPS) or ‘club drugs’ are chemicals that have similar effects to illegal drugs but until very recently remained legal to purchase in the UK. Many drugs had been made illegal under the misuse of Drugs Act 1971. This provision was insufficiently broad to legislate for the actions of some modern chemists’ intent on circumventing the law. The problem was that as soon as a new drug was identified, the Home Office placed a temporary ban on the chemical while it decides whether the drug should be permanently banned. By the time agents are banned chemists had responded by slightly altering the molecular structure making a new subtly different drug with similar effects. Crucially the fact that these drugs were legal does not mean that they are safe or approved for human use, many vendors labelled them as ‘not fit human consumption’. On 26th May 2016 the Psychoactive Substances Act came into force it making it an offence to ‘produce, supply, offer to supply, possess with intent to supply, possess on custodial premises, import or export psychoactive substances; that is, any substance intended for human consumption that is capable of producing a psychoactive effect. The maximum sentence will be 7 years’ imprisonment’. Fluorophenmetrazine (3-FPM) also known as PAL-593 was introduced onto the market via the internet in around 2014 since that time it has become increasingly popular. The drug won the VICE Netherlands Designer Drug Awards 2014 “Newest Drug of 2014 Award”. It was legal in the UK until May 2016; it had already been made an illegal substance in Switzerland and Sweden. 3-FPM is one of many phenylmorpholines designed to treat obesity or ameliorate drug dependence. It is suggested that it has properties similar to amphetamines associated with monoamine release. There are many unofficial reports of effects available on the internet, supplied by users. It seems that the majority of reported effects are as a stimulant, however there are few reports of its precise action. We report a case of dialysis dependent acute kidney injury, four limb ischaemia resulting in bilateral lower limb amputation and loss of digits on his left hand, this occurred as a result of injection of 3-FPM intravenously. This was the first use of this drug by the patient, it was purchased as an alternative to Methiopropamine(MPA).

michael.fawzy@nhs.net

Study of intradialytic hypertension at a tertiary care hospital

Vajed Mogal

Dr. D. Y. Patil Medical College, Hospital & Research Centre, India

Introduction: Hypertension is perhaps one of the most common problems of patients with end stage renal disease (ESRD). Hypertension is highly prevalent ESRD in patients on maintenance hemodialysis (HD). Intradialytic hypertension (IDH) is one such complication responsible for increased morbidity and mortality in chronic kidney disease (CKD) patients undergoing hemodialysis. In India, there is limited data available in the literature for the incidence of IDH in CKD patients on hemodialysis.

Aims & objective: To study the prevalence of Intradialytic Hypertension in patient undergoing regular hemodialysis and factors responsible for Intradialytic Hypertension.

Methods: The study was a randomized prospective single center study. It included all the patients of chronic kidney disease (CKD) undergoing maintenance hemodialysis 2 or 3 times a week. Patients of Acute Kidney Injury will be excluded from study. Serial Blood pressure (BP) recordings were taken on monitor at the beginning of hemodialysis session, at the end of hemodialysis session and at 1 hour during the session; for 2 hemodialysis sessions. Patient was defined as having Intradialytic Hypertension (IDH) if there was; > 10mm Hg systolic BP rise on HD session, in more than 2 HD. The data obtained was studied based on 13 parameters and chi square test was applied to the attributes to test their significance at 1 degree of freedom and at 5% level of significance. (p value < 0.005 statistically significant).

Results : During this study it was found that mean age of all subjects was 42.26 ± 14.69 years. 95(95%) had history of hypertension, 28(28%) had history of diabetes mellitus, and 12(12%) had history of ischemic heart disease. 31(31%) patients were found to have intradialytic hypertension (IDH). 96(96%) subjects were on calcium channel blockers, 70 (70%) were on beta blockers, and 44 (44%) were on alpha blockers, and 10 (10%) on central sympatholytic. Regression analysis was performed to find out independent risk factors for IDH. It was found that Pre-HD SBP was an independent risk factor for IDH after adjusting for gender, diabetes mellitus, HD vintage, cholesterol, IDWG, frequency of HD and types of anti-hypertensive drugs (CCB, α blocker, β blocker, CS). Interdialytic weight gain and cholesterol are modifiable risk factors with appropriate measures, so these observations can potentially guide us to prevent in dialysis patients.

CONCLUSION: Interdialytic weight gain and cholesterol are modifiable risk factors. Pre-HD SBP was independent risk factor for IDH. Patients with overall higher BP burden likely to develop intradialytic hypertension (IDH).

drvajedmogal@gmail.com

IgG1 anti-PC reduces CVD risk in SLE patients by efficiently clearing apoptotic cells

Thiagarajan D, Frostegård A and Frostegård J

Karolinska Institutet, Sweden

Background: Dual role of natural IgM antibodies against both phosphorylcholine (PC) and Malondialdehyde (MDA) in assisting the clearance of apoptotic cells and reducing atherosclerotic plaques size has been suggested previously. In this study we aim to understand the role of IgG1, IgG2 in Cardiovascular outcomes in SLE and their functions in in-vitro conditions.

Methods: We used a unique SLE- Vascular Impact Cohort (SLEVIC), which consisted of 116 SLE-patients from Karolinska University Hospital Huddinge and 110 matched controls. The levels of IgG1s and IgG2 was measured by ELISA. For functional studies, we used fully human monoclonal antibodies. Primary human macrophages were cultured with MCSF. Apoptosis was induced in TAMRA labelled Jurkat T-cells by CD95 ligand and incubated with anti-PC IgGs or isotype control IgG1 (1µg/mL), one hour prior to phagocytosis. Anti-PC antibody labelled apoptotic Jurkat cells were fed to mature M2 macrophages for 60-80 mins and the cells were formalin-fixed for microscopic examination. Phagocytosis was assessed by number of macrophages up-taking TAMRA labelled Jurkat cells to the total number of macrophages in the given area.

Results: IgG1 Anti-PC and IgG2 Anti-MDA were negatively associated with atherosclerosis IgG1 Anti-PC was negatively associated with CVD, SLEDAI and SLICC Simultaneously, the IgG1 anti-PC clones D05, improved phagocytosis efficiency from 25% (both macrophages and isotype control) to and 53%(p=0,007) followed by E01, 37%(p=0,05) and A01,28% (p=NS) where, the anti-PC IgG1s bind to phosphorylcholine exposed on apoptotic cells and facilitate the uptake by macrophage through Fc gamma receptor.

Conclusion: The impaired clearance of apoptotic cells and increased OxLDL uptake are hallmark in both SLE and development of necrotic core in atherosclerotic plaques respectively. This study evidently show that anti-PC IgG1 is not only lower in atherosclerotic patients but exogenous addition of anti-PC IgG1s efficiently improves the apoptotic cell uptake thereby making a possible therapeutic candidate for SLE patients in future.

divya.thiagarajan@ki.se

Notes:

Real-world evidence: The public health perspective for chronic diseases

Marina Komaroff

Noven Pharmaceuticals, Inc., USA

Statement of the Problem: In the last decade, Real-World Data (RWD) has been increasingly used to provide Real-World Evidence (RWE) in the arena of developing new medical products. RWE complements findings from Randomized Controlled Trials (RCT) by providing information about clinical use of the products in the broader population, and how different environmental and health-care factors can influence treatment effects and/or outcomes. Nevertheless, the potential of RWD/RWE has not been extensively explored in the field of chronic diseases.

Objective: The aim is to explore the use of RWD/RWE for maintenance therapies among patients with chronic diseases.

Methodology: The strengths, weaknesses, and potential extension of RWD/RDE applications were analyzed by the review of two case studies: (1) The use of antihypertensive medications and change in stages of chronic kidney disease in American adults during 1999-2012; and (2) Changes in cognitive function in American population – metabolic syndrome and use of antipsychotic medications in 1999-2016.

Findings: The following factors can expedite the use of RWD/RWE in the field of chronic diseases: (1) setting of multiple population-oriented databases with standardized data collection and easy linkage; (2) expending of existing analytic methods and developing novel methodological approaches to conduct such research. In addition, clinical research with open access will expedite understanding of RWE studies and findings by the communities with diverse population of patients.

Conclusions and Relevance: RWD can play significant role in the area of chronic diseases. There is some work to be done to utilize RWD/RWE for clinical research of maintenance therapies among patients with chronic diseases.

genmar2k@gmail.com

Incidence and prevalence of Parkinson's Disease (PD) in Wales

Khalid Orayj¹, **Arron Lacey**², **Ashley Akbari**², **Mathew Smith**¹, **Owen Pickrell**² and **Emma Lane**¹,

¹Cardiff University, United Kingdom

²Swansea University Medical School, United Kingdom

Background: Previous epidemiological studies in the UK have suggested a decline in the incidence of Parkinson's disease (PD) in recent years, accompanied by a relatively stable prevalence rate. Globally, there seems to be variation in the trend of PD incidence and prevalence over time. A Welsh population-based study is required to estimate the incidence and prevalence of PD in comparison to previous studies.

Methods: Using the Secure Anonymised Information Linkage (SAIL) Databank, we conducted a population-based study of residents in Wales, UK, aged 40 years or older between 2000 and 2016. The annual prevalence and incidence of PD were estimated using the Read codes for PD diagnosis. Poisson regression was used to estimate the incidence rate ratio (IRR) and prevalence risk ratio (PRR) across the study period.

Results: We analysed 16,693,205 single person-years during 2000-2016. The incidence rate ranged from 54.74 to 68.04 per 100,000 person years across the study period. The incidence rate did not differ significantly between the reference year (calendar year of 2000) and the majority of years of the study period (in 2016 the IRR was 1.05 95% CI 0.93–1.18). However, the overall prevalence rate increased from 319.40 to 370.05 per 100,000 population between 2000 and 2016. The prevalence rate differed significantly between the reference year and subsequent years (in 2016 the PRR was 1.16 95% CI 1.11–1.21).

Conclusions: In Wales, the prevalence of PD has increased in the period between 2000 and 2016 with a relatively stable incidence rate. This could be due to increasing population aging.

Orayjk@cardiff.ac.uk

Notes:

Prognostic value of Montreal cognitive assessment in heart failure patients

Lyu Siqi and Yu Litian

Peking Union Medical College, China

Objective: To explore the occurrence of cognitive impairment in Chinese heart failure (HF) patients and its impact on prognosis.

Methods: A total of 990 patients were enrolled from 24 hospitals in China during December 2012 to November 2014. All patients were administrated with the interview-format MoCA, according to which they were divided into MoCA<26 group and MoCA≥26 group. Baseline data were collected and a 1-year follow-up was carried out. Univariate and multivariate Cox regression were performed for 1-year outcomes.

Results: 628 patients (63.4%) had cognitive impairment and they were more likely to be older, female, less educated, uninsured and New York Heart Association class III-IV. Compared with MoCA≥26 group, the rate of intervention, device implantation, cardiac surgery and evidence-based medications were significantly lower in MoCA<26 group (all $p<0.05$). As to the 1-year outcomes, MoCA<26 group had higher all-cause mortality (10.2% vs. 2.2%, $p<0.001$), cardiovascular mortality (5.9% vs. 0.8%, $p<0.001$) and major cardiovascular events (MACE) (9.6% vs. 2.5%, $p<0.001$) than MoCA≥26 group. After adjustment by multivariate regression, MoCA<26 was indicated as a significant risk factor for all-cause mortality [HR(95%CI): 4.212(1.987-8.927), $p<0.001$], cardiovascular mortality [HR(95%CI): 7.632(2.316-25.147), $p=0.001$] and MACE [OR(95%CI): 4.229(2.006-8.914), $p<0.001$], while not for hospitalization for HF.

Conclusion: Cognitive impairment was common in HF patients and was identified as an independent prognostic marker for 1-year outcomes. Routine cognitive function assessment and active intervention are recommended for HF patients.

lvsqiq138@163.com

Notes:

Socio-cultural construction of HIV/AIDS stigma among African migrant women in lower saxony, Germany

Joyceline Ntoh Yuh

University of Oldenburg, Germany

An estimate of 80,000 people are living with HIV in Germany with 4,400 sero-positive persons in the State of Lower Saxony which counts amongst the high HIV prevalence states in Germany. HIV is now classified as a chronic disease, but many sexually active people do not still know their HIV status. In so doing, HIV-related stigma stands as a major barrier in seeking VCT especially within African communities. Gender and culture play a significant part in the aftermath of the infection. Women are more likely to be blamed for the transmission of HIV compared to men. All these complicate the disclosure of infection and prevention of HIV transmission. HIV prevention efforts are slowed down by societal and cultural factors that largely lead to stigmatization of infected individuals. The current research therefore, examines the socio-cultural construction of HIV stigma and dilemmas as African-migrant Women struggle to cope with the challenges posed by HIV/AIDS in their day to day lives. The social context of HIV-related stigma is reflected in negative behaviors including discrimination, denial, secrecy and self-blame. Most HIV infections are through heterosexual transmission, a mode of transmission closely linked to promiscuity and the resultant HIV-related stigma. The complexity surrounding HIV-related stigma cannot be ignored considering the fact that, it is layered amongst other stigmas such as gender and promiscuity (Skinner & Mfecane, 2004). Intersectionality is an ideal framework for analyzing complex health inequalities that occurs among HIV-infected subgroups especially African Women whose experiences are different from that of men. Multiple factors often precipitate stigmatization experiences and their social identities at the individual level such as being female, ethnic minority, low economic status which interlocks with oppressive forces at the macro level e.g. classism or sexism which creates social injustice. It is vital to examine the underlying aspects creating and re-enforcing HIV-related stigma in order to design culturally sensitive interventions. Thus, redefining HIV/AIDS from the social perspective during its outbreak which initially created stigma, needs to be addressed especially by medical personnels, social workers and Religious leaders in order to eradicate it. The qualitative study had a convenient sample of six participants based on the fact that, most women declined to participate due to stigma and also not being comfortable having an African researcher involved. The lived experiences of participants were analyzed using interpretative phenomenological analysis approach, to gain a better understanding of their perspectives in its own term, than simply focusing on theoretical underpinnings. The study shows how the psychological impact of HIV continues to affect sero-positive women negatively in living fulfilled lives with other related anxieties, impacting on their overall wellbeing.

n_joyce192002@yahoo.com