ABSTRACT SUMMARY

Main-Author Name:	Theng Xin Shermaine	Abstract Name:	Patient Preferences for Types of Community-based Cardiac Rehabilitation Program
Institution:	Duke- NUS Medical School		
Category:	Non-medical (Nursing, Allied Health, Medical Students, etc.)		

ABSTRACT DETAILS

Aims:	To understand the type of community-based CR preferred, and identify patient characteristics associated with certain program combinations.
Methodology:	A cross-sectional survey was administered to a randomized list of patients at risk for or with cardiovascular diseases at two community-based CR centers. Participants were presented with nine hypothetical choice sets and asked to choose only one of the two alternative program combination in each choice set. Attributes include support group presence, cash incentives, upfront deposit and out-of-pocket cost. The counts for each combination were tallied and corrected for repeats. Chi-square test and logistic regression was performed to understand the characteristics associated with the preferred CR combination.
Results:	After correcting for repeats, patients most (85.2%) prefer CR programs with new group activities, support group, cash rewards, deposit and out-of-pocket cost, few exercise equipment with physiotherapist presence without need for monitoring equipment. Patients with more than 3 bedrooms in their house are less likely (OR:0.367; CI:0.17-0.80; p=0.011) to choose the choice with no physiotherapist and few equipment available.
Conclusion:	This is the first study to explore patients' preferences for different types of community CR. Higher-income patients prefer physiotherapist presence and are willing to settle for less equipment. Our study serves as a guide for designing future community-based CR programs.

ABSTRACT SUMMARY			
Main-Author Name:	Kuch Swee Ching	Abstract Name:	The Incidence Rate and Risk Factors associated with Dysglycemia detected during diabetic screening in Primary Care
Institution:	SingHealth Polyclinics		
Category:	Non-medical (Nursing, Allied Health, Medical Students, etc.)		

ABSTRACT DETAILS	
Aims:	Population screening for Type 2 Diabetes Mellitus (T2DM) is often ad-hoc and truncated without adequate follow up of screened subjects. Consequently the progression rate of subjects in primary care from normoglycemia to dysglycemia has yet to be determined in Singapore. The study aimed to determine the incidence rate of subjects from normoglycemia to pre-diabetes state and overt T2DM over one year and its associated risk factors.
Methodology:	Subjects with normoglycemia or dysglycemia, but not T2DM, were recruited on a case encounter basis from three Singapore polyclinics over two months. Assistant-administered questionnaires collected baseline data on their demography, clinical and anthropometric parameters and random capillary glucose readings. Medical record reviews were conducted at 12 months to determine development of dysglycemia or T2DM.
Results:	1123 subjects (median age 56 years, female56%, Chinese77.0%, Malay11.4%, Indians7.8%, Others4%) were screened in 2016, of which 1.6%(18) had Impaired Fasting Glucose (IFG), 16(1.4%) Impaired Glucose Tolerance (IGT), and 3(0.3%) had both IFG and IGT. 1 IFG case also developed IGT, and 1 IGT case developed T2DM at 12-month. Amongst the remaining 1086 subjects, 6 developed T2DM(0.6%/year), 7 with IFG(0.6%/year), 5 with IGT(0.5%/year) and 2 with IFG and IGT(0.2%/year) at 12-month post-enrolment. Factors significantly associated with progression to dysglycemia included older age($p=0.001$), lower education($p=0.001$), family history of T2DM($p=0.005$), hypertension($p<0.001$), hyperlipidemia($p=0.012$), higher BMI($p<0.001$) and waist circumference($p<0.001$).
Conclusion:	The rate of developing dysglycemia in Asian patients ranged from 0.2-0.6% annually, especially amongst older patients with lower educational level, family history of T2DM, hypertension, hyperlipidemia, higher BMI and waist circumference.

ABSTRACT SUMMARY

Main-Author Name:	Oh Guat Leng	Abstract Name:	Prevalence of Dysglycaemia in a multi-ethnic Asian population
Institution:	SingHealth Polyclinics		
Category:	Medical (Doctors)		

ABSTRACT DETAILS

Aims:	The prevalence of type 2 diabetes mellitus (T2DM) is increasing in Singapore and yet 49.4% of its multi-ethnic Asian residents were unaware of their T2DM in 2011. The study aimed to determine prevalence of undiagnosed dysglycemia (including prediabetes: impaired fasting glucose IFG and impaired glucose tolerance IGT) and T2DM in local residents and their associated risk factors.
Methodology:	Repeated assistant-administered surveys of adult multi-ethnic Asian subjects without T2DM were conducted at 3 polyclinics, each over three months in 2016-2017 respectively. Data on their demography, family history, and on-site measurements of clinical and anthropometric parameters, random and/or fasting capillary blood glucose using glucometer were collated, audited and analyzed to identify subjects with prediabetes and T2DM based on WHO diagnostic criteria. Univariate analysis was conducted to determine baseline differences between the normal and prediabetes/T2DM group. Potential factors were included in logistic regression to determine the adjusted odds.
Results:	Out of 1914 recruited subjects (median age 57 years, female 54.7%, Chinese 77.3%, Malay 10.4%, Indian 8.2%, Others 4.1%) without T2DM on enrolment, 23 (1.2%) had T2DM and 289 (15.2%) had prediabetes. The risk factors for developing dysglycaemia included BMI (OR=1.07,p<0.01), number of days watching TV (OR=1.1,p=0.02), house-ownership (OR=0.63,p=0.04), employment (OR=1.43,p=0.03), median systolic (OR=1.01,p=0.03) and diastolic blood pressure (OR=0.98,p=0.01).
Conclusion:	The prevalence of T2DM and prediabetes detected from ad-hoc diabetic screening in subjects without known T2DM were 1.2% and 15.2% respectively. Interventions should be targeted at addressing the associated risk factors to curb the rising T2DM prevalence.

ABSTRACT SUMMARY

Main-Author Name:	Marilyn David	Abstract Name:	The Perceived Attributes of Nurse Preceptor in the Primary Care Setting - A Qualitative Study
Institution:	SingHealth Polyclinics		
Category:	Non-medical (Nursing, Allied Health, Medical Students, etc.)		

ABSTRACT DETAILS

Aims:	Preceptorship is recognized as a critical process during preceeptee's transition period in the new work environment. This study explored the perception of nurse preceptor's attributes, and addressed the factors affecting preceptee's learning experience. The study outcomes will help to strengthen preceptorship capability in our practice setting.
Methodology:	A qualitative research study which utilized a phenomenological approach was carried out to gain an in-depth understanding of the desired attributes of nurse preceptors from the perspectives of preceptors and preceptees. All newly recruited nurses from January 2014 to April 2015 at 8 Polyclinics, and 71 Registered Nurse and Enrolled Nurse preceptors participated in the study. Focus Group Discussions (FGDs) were conducted using a semi-structured topic guide. Three FGDs for preceptors and two FGDs for preceptees were conducted till data saturation was reached. The interviews were audiotaped, and transcribed verbatim were thematically analysed.
Results:	¬¬¬Three main themes emerged during the FGDs. The clinical knowledge of the preceptor was viewed as an important aspect to achieve successful preceptorship. Positive attitudes with self-awareness and approachability were elements to promote supportive relationships with preceptees leading to better learning outcomes. The ability to adapt to individual learning needs was perceived as an important component in maximizing learning. Addressing the strengths and weaknesses of the preceptee's was opined as a motivating factor for continuing learning and development.
Conclusion:	Our findings provided insight into the roles and desired attributes of nurse preceptor in our practice setting. The results of this study will be taken into consideration in identifying and developing future preceptors.

ABSTRACT SUMMARY			
Main-Author Name:	Kam Pui Lee	Abstract Name:	Translation and Validation of the Insulin Treatment Appraisal Scale in Hong Kong Primary Care Patients
Institution:	The Chinese University of Hong Kong		
Category:	Medical (Doctors)		

ABSTRACT DETAILS	
Aims:	Patients with type 2 diabetes mellitus (DM) often delay the initiation or titration of insulin treatment due to psychological factors, a phenomenon called psychological insulin resistance (PIR). The insulin treatment appraisal scale (ITAS) is a 20-item instrument for assessing PIR. A previous Chinese version of the ITAS (C-ITAS) was found to be subject to problems arising from its translation. The present study aimed to translate and validate this instrument, which will facilitate research and aid in counselling in a clinical setting.
Methodology:	The C-ITAS was modified to develop the Hong Kong version of C-ITAS (C-ITAS-HK) according to published guidelines for the translation of trans-cultural research. A total of 328 DM patients who followed-up in 10 different Government-funded primary care outpatient clinics were recruited for self-administration of the C-ITAS-HK. Demographic data were recorded, and clinical data (e.g., presence of DM complications) were obtained from case records. The C-ITAS-HK results were subjected to psychometric analysis, including the assessment of Cronbach's alpha, factor analysis and test-retest reliability.
Results:	Factor analysis supported a 2-factor structure with good internal consistency (whole scale=0.846, negative subscale=0.882, positive subscale=0.619). The test-retest reliability correlation coefficients for all items were positive, at 0.871, 0.782 and 0.692 for the whole scale, negative subscale and positive subscale, respectively. The ITAS scores differed significantly between participants with PIR and those without in the expected direction, suggesting good discriminant validity.
Conclusion:	The C-ITAS-HK is a valid tool for measuring and assessing PIR in the Hong Kong primary care DM population.

ABSTRACT SUMMARY			
Main-Author Name:	Lorainne Tudor Car	Abstract Name:	Academic writing peer-support group: experience in Singapore primary care context
Institution:	Lee Kong Chian School of Medicine		
Category:	Medical (Doctors)		

ABSTRACT DETAILS	
Aims:	Academic writing groups (AWG) aim to support participants' academic writing process. We present the experience of two AWGs, moderated by LKCMedicine faculty, involving Singapore family physicians and NHG Polyclinic staff.
Methodology:	The AWGs had a peer-support, small group approach and consisted of six sessions held every three weeks. The participants completed a baseline and a follow-up questionnaire with a Research Spider diagram to assess research knowledge and skills. They also collated data on demographics, research experience, aims at baseline as well as attitudes to AWGs and research successes at follow-up. We analysed Research Spider data using Wilcoxon sing-ranked test and present the other findings narratively.
Results:	Of 21 participants, most were female (62%), family physicians (43%) and involved in reviews or observational studies. At baseline, seven participants had a peer-reviewed publication and two attracted research funding. At follow-up, the analysis showed a significant improvement in research protocol writing, use of qualitative research methods, publishing research, critically reviewing the literature, finding relevant literature and generating research ideas as per Research Spider. Two participants reported winning a research grant, three made progress with their projects and two embarked on new projects. All participants appreciated the small group format and agreed that AWGs were helpful, relevant, suitable and exceeded their expectations.
Conclusion:	The findings from the AWGs surveys convey a clear need and appreciation for the academic writing support. The participants reported improvement in their research knowledge and skills and an overwhelming positive response towards this type of training.

ABSTRACT SUMMARY

Main-Author Name:	Bhone Myint Kyaw	Abstract Name:	Antibiotic management in primary care digital healthcare professional education
Institution:	Lee Kong Chian School of Medicine		
Category:	Medical (Doctors)		

ABSTRACT DETAILS

Aims:	Inappropriate antibiotic prescribing is one of the key contributors to antibiotic resistance. Healthcare professionals' education about antibiotic prescribing is one of the strategies used to improve appropriateness of prescribing. This project is part of a larger research initiative which evaluates impact of digital interventions for health professional education. The objective of this review was to assess the impact of digital healthcare professional education about antibiotic management in primary care on healthcare professionals' knowledge, skills, attitudes, and satisfaction with learning method.
Methodology:	We used standard Cochrane methods and searched seven electronic databases for studies of digital healthcare professional education from January 1990 to August 2016. Randomized control trials (RCTs) and cluster RCTs (cRCTs) were included.
Results:	Seven cRCTs and two RCTs with 708 primary healthcare practices, 1845 family physicians or general practitioners and 9246 patients were included in the analyses. The interventions consisted of mobile devices such as personal digital assistants (PDA), short text messages (SMS), computer-based digital learning interventions and blended learning which involved digital learning plus traditional printed leaflets or interactive handouts. The control arms received no additional intervention except usual practice.
Conclusion:	Based on our preliminary findings, the effectiveness of digital healthcare professional education about antibiotic management in primary is promising. However, the overall quality of evidence was low due to unknown risk of bias and inconsistencies.

ABSTRACT SUMMARY

Main-Author Name:	Jo-Anne jomn@unimelb.edu.au	Abstract Name:	Cardiovascular risk management in people with type 2 diabetes and chronic kidney disease in Australian general practice: A cross-sectional study
Institution:	University of Melbourne		
Category:	Medical (Doctors)		

ABSTRACT DETAILS

Aims:	Type 2 diabetes (T2D) affects over one million Australians; over a quarter are estimated to have co-existing chronic kidney disease (CKD). Cardiovascular disease (CVD) risk assessment and management is recommended in national guidelines from age 45 to 74 years. We explored the cardiovascular disease risk profile and management of adults with T2D attending Australian general practice.
Methodology:	Cross-sectional observational study using data collected from GP clinical information systems by MedicineInsight between 1 June 2015 and 31 May 2016. Patient demographics, CVD risk factors, CVD risk score and management, stratified by CKD and age group, were summarised using descriptive statistics.
Results:	73329/84230 (87.1%) of people with T2D aged ≥18 years had a reported high risk of a CVD event in the next five years. The proportion of patients at high risk was greater in those with evidence of CKD (98.7%) compared to those without (84.5%). A higher proportion of patients with evidence of CKD were prescribed both lipid and BP-lowering medication compared to those without (51.8% vs 35.1% at high CVD risk for a primary event; 58.5% vs 51.8% with a previous CVD event). Prescription of BP-lowering medications for ≥75 year olds for primary prevention was similar to 45-74 year olds but lower for lipid lowering agents.
Conclusion:	Pharmacological management of CVD risk for people with T2D, including those with both T2D and CKD, is higher than that of the general Australian population. However, there is further potential to optimise management as recommended by guidelines, particularly for those aged 45 to 74 years.

ABSTRACT SUMMARY			
Main-Author Name:	Irmi Zarina Ismail	Abstract Name:	Health-seeking behaviour of women with diabetes who have pregnancy intention: A qualitative study
Institution:	University Malaya		
Category:	Medical (Doctors)		

ABSTRACT DETAILS	
Aims:	In Malaysia, women with diabetes (WWD) often embark on pregnancy unplanned. This may result in adverse maternal and foetal outcomes. This study explored the health-seeking behaviour of WWD when they intend to conceive.
Methodology:	This qualitative study was conducted in Negeri Sembilan, Malaysia, using individual in-depth interviews (IDI). A semi-structured topic guide was used to capture the experiences of WWD from four public health clinics. They were purposively sampled according to ethnicity and location (urban vs rural). The interviews were audio-recorded, transcribed verbatim and analysed using thematic approach.
Results:	A total of fourteen WWD who have pregnancy intention were interviewed. Only one was taking contraception. Many have uncontrolled diabetes and have been advised against pregnancy. However, they still sought help for their infertility problems, discontinued all contraception and engaged in active sexual activities to increase their chance of pregnancy. At the same time, they took positive steps to optimise their pregnancy outcomes: undergoing health risk assessment; acquiring information on health risk in pregnancy; optimising diabetes, blood pressure and weight control; taking folate pre-pregnancy; and early antenatal booking.
Conclusion:	This study reveals that despite being aware of the risks of pregnancy related to diabetes and ways to prevent them, WWD continued to plan for their pregnancy despite having suboptimal diabetes control. This highlights the importance of addressing women's reproductive needs in the delivery of pre pregnancy care in WWD.

ABSTRACT SUMMARY			
Main-Author Name:	Carmen Ka Man WONG	Abstract Name:	Managing multimorbidity: A qualitative study of Chinese patients' experiences
Institution:	The University of Hong Kong		
Category:	Medical (Doctors)		

ABSTRACT DETAILS	
Aims:	This study aims to interview Chinese patients with multiple chronic conditions and explore their views on consultation experiences, self-care management, facilitators, and challenges in managing their health.
Methodology:	Study design consists of focus group interviews of multi-morbid patients recruited from public primary care clinics in Hong Kong. In total, twenty-eight patients were interviewed. The interviews were transcribed, coded, and analysed using thematic analysis.
Results:	Themes arising from the data included: sense of wellbeing and control, complexity and perceived helplessness, expectations of doctors and health care, frustration with health and social systems, recommendations on cost and services, and additional burdens in self-management. Doctors were valued for their expertise and in maintaining trust; however, patients often had unmet expectations from the consultations. Patients appeared open to integrative services, group and community activities and innovative ways to fund their health care costs.
Conclusion:	Multi-morbid patients can face many difficulties and frustration with health services and consultations, which may conflict or hinder their self-management. There is a need to for optimisation of the doctor-patient interaction and involve patients in research and health care planning. The role of Traditional Chinese medicine in chronic care of multiple conditions warrant further exploration.

ABSTRACT SUMMARY

Main-Author Name:	Zafirah Banu	Abstract Name:	Association between anti-hypertensive medications and the occurrence of injurious falls in elderly populations of low socioeconomic status: A case-control study
Institution:	National University of Singapore		
Category:	Non-medical (Nursing, Allied Health, Medical Students, etc.)		

ABSTRACT DETAILS

Aims:	Effect of combination anti-hypertensive therapy on injurious falls among community-dwelling elderly of low socioeconomic status has yet been studied. Prior research has shown that this population has a higher incidence of fall risk factors, which might make them more prone to falling as compared to the general elderly population. We examined whether combination anti-hypertensive therapy or any change in anti-hypertensive medication prior to fall was associated with an increased risk of experiencing an injurious fall among community dwelling elderly of lower socioeconomic status.
Methodology:	Using data collected from electronic medical records, we performed a matched case control study among low-income elderly residents (60 and above) residing in Singapore's public rental flats (N = 210). An average of 3 controls was matched to each case by age and gender. We used conditional logistic regression to assess the associations for combination anti-hypertensive therapy and change in anti-hypertensive medication in two separate models.
Results:	The mean (±SD) age of the 210 subjects was 78.1 (± 8.33) years; 127 (60.4%) were female, 189 (90.0%) were Chinese. We identified 48 cases and 162 matched controls. Combination anti-hypertensive therapy was associated with an increased risk of experiencing an injurious fall. (OR=4.86; CI:1.04-22.7; p=0.04) In addition, participants that reported a change in anti-hypertensive medication 180-day prior to injurious fall had a significantly increased risk of experiencing an injurious fall. (OR=4.56; CI:1.06-19.62; p=0.04)
Conclusion:	Both combination anti-hypertensive therapy and change in anti-hypertensive medication was associated with an increased risk of experiencing an injurious fall, especially among elderly with lower socioeconomic status.

ABSTRACT SUMMARY			
Main-Author Name:	Shengyong Su	Abstract Name:	Excessive daytime sleepiness in adolescents visiting primary care clinic in a multi-ethnic population.
Institution:	Sengkang Health		
Category:	Medical (Doctors)		

ABSTRACT DETAILS	
Aims:	In a highly competitive society like Singapore, academic performance is of paramount importance. It was observed that insufficient sleep resulted in excessive daytime sleepiness which negatively impact academic outcome. This study aim to investigate the prevalence of excessive daytime sleepiness (EDS) in Singapore adolescents and its association with sleep quality, use of technological devices and physical activity.
Methodology:	Standardized questionnaires were self-administered to 210 adolescents aged 12-19 who visited 2 private primary care clinics in north-eastern regions of Singapore. The response rate was 99%. The questionnaire included questions on demographic characteristics, Epworth Sleepiness Scale, Pittsburgh Sleep Quality Index, level of physical activity and use of technological devices.
Results:	The prevalence of adolescents with EDS stands at 40%. The mean total sleep duration is 7 hours. The mean Epworth sleepiness scale (ESS) score is higher for the females (9.1) and older adolescents (9.7). The older adolescents are also sleeping lesser and going to bed later.
Conclusion:	In general, adolescents in our study are sleep-deprived. There is a high prevalence of excessive daytime sleepiness, especially in the older adolescents group. Professionals interacting with adolescents in the education and healthcare sector should be aware of this and consider interventions such as sleep hygiene educational programs to address this issue.

ABSTRACT SUMMARY

Main-Author Name:	Li LI	Abstract Name:	Search strategies to identify observational studies in MEDLINE and EMBASE
Institution:	Lee Kong Chian School of Medicine		
Category:	Medical (Doctors)		

ABSTRACT DETAILS

Aims:	The value of the evidence synthesized from observational studies in decision-making for family care physicians and policy makers is increasingly recognized. Limitation in indexing practices makes the identification of observational studies particularly challenging. Search strategies complemented with methodological filters on study design are important in improving the sensitivity and precision of the search performance. The objective of this systematic review was to assess the sensitivity and precision of methodological filters for identifying the observational studies in MEDLINE and EMBASE.
Methodology:	Four electronic databases were searched for papers that compared search strategies that included methodological filters for retrieving observational studies in MEDLINE and EMBASE against a reference standard. The sensitivity and precision of the methodological filters were assessed.
Results:	2075 papers were retrieved and two were included, reporting on 6 MEDLINE, 6 EMBASE, 4 MEDLINE and EMBASE methodological filters. These 16 methodological filters were compared with two reference standards, and were tested in 7 studies. Fraser reported that the methodological filters achieved sensitivity of 99.5-100% with precision ranging between 16.7-21.1%. Furlan reported that the methodological filters obtained sensitivity of 90% above with precision between 0.09-1.03 %.
Conclusion:	The methodological filters presented in the included studies have high sensitivity with acceptable precision in identifying comparative non-randomized studies in MEDLINE and EMBASE. , indicating that they might be useful for efficient literature searching for observational studies.

ABSTRACT SUMMARY

Main-Author Name:	Weng Yee CHIN	Abstract Name:	A TREE MODEL ANALYSIS EXPLORING HOW PRIMARY CARE DOCTORS DIAGNOSE DEPRESSION
Institution:	The University of Hong Kong		
Category:	Medical (Doctors)		

ABSTRACT DETAILS

Aims:	To explore the criteria used by primary care physicians (PCPs) to diagnose depression and the factors influencing their decisions using an inference decision tree analysis to how the factors interact.
Methodology:	10,179 adult patients were recruited from the waiting rooms of 59 PCPs in Hong Kong. Patients completed a survey collecting data on socio-demographics and the Patient Health Questionnaire-9 (PHQ-9). Blinded doctors documented whether they thought the patient had depression (yes/no). Data was analyzed using multiple logistic regression and modelled to generate a conditional inference decision tree to reveal how PHQ-9 symptoms and PHQ-9 total scores were associated with diagnosis.
Results:	1,054 patients received a depression diagnosis. Logistic regression identified gender, age, employment status, past history of depression, family history of mental illness and recent doctor visit as factors associated with diagnosis. Tree analyses revealed differing diagnostic pathways for patients with and without past depression. The PHQ-9 symptom model revealed low mood, sense of worthlessness, fatigue, sleep disturbance and functional impairment as early classifiers. The PHQ-9 score model revealed cut-off scores of >12 and >15 were used to diagnose patients with and without past depression.
Conclusion:	The tree models demonstrated how PCPs use a hypothetical-deductive problem-solving approach incorporating pre-test probability, using different criteria for patients with and without past depression. Diagnostic thresholds may be too low for patients with past depression and too high for patients with no past depression potentially leading to over and under diagnosis of depression. Suicide assessment and prevention may be suboptimal in our setting.

ABSTRACT SUMMARY

Main-Author Name:	Chay Lee, Cherry Tan	Abstract Name:	Effect of a diabetes self-efficacy enhancing programme on older adults with type 2 diabetes – A randomized controlled trial
Institution:	SingHealth Polyclinics		
Category:	Non-medical (Nursing, Allied Health, Medical Students, etc.)		

ABSTRACT DETAILS

Aims:	This study aimed to examine the effect of a diabetes self-efficacy enhancing programme (DSEEP) on older adults with type 2 diabetes.
Methodology:	A two-group randomized controlled trial with pre- and post-tests design was adopted. A hundred and forty-two older adults were recruited from a polyclinic. They were randomly allocated to the intervention group (n=70), receiving DSEEP plus usual care, or the control group (n=72), receiving usual care. The newly developed DSEEP, guided by Bandura's self-efficacy theory, comprises a guidebook on diabetes care, a digital video disc, a one-day training workshop, and fortnightly follow-up telephone calls. Data were collected at baseline and at 8 weeks from baseline. Outcome measures included self-efficacy, self-care activities, health-related quality of life, glycosylated haemoglobin (HbA1c) and unplanned healthcare service usage. Descriptive statistics, t-tests, Chi-square tests and repeated measures analysis of variance were used for data analysis.
Results:	Compared to participants in the control group, the participants in the intervention group had higher increase in self-efficacy (F = 4.99, p=0.03) and diabetes self-care activities (F = 18.11, P < 0.001), and lower HbA1c (F = 6.08, P = 0.015) after receiving DSEEP. There were no significant differences in unplanned healthcare service usage and health-related quality of life between the two groups.
Conclusion:	The DSEEP increased older adults' self-efficacy which enhanced their diabetes self-care activities and significantly reduced HbA1c. The DSEEP effectively improved older adults' self-care management. Hence, it could be a new option for healthcare service delivery for older adults with type 2 diabetes in Singapore.

ABSTRACT SUMMARY			
Main-Author Name:	Eui Whan Moon	Abstract Name:	Smartphone Application Assisted Electronic Documentation of Home Blood Pressure Measurements in Patients with Hypertension: A Pilot RCT
Institution:	Duke-NUS Medical School		
Category:	Non-medical (Nursing, Allied Health, Medical Students, etc.)		

ABSTRACT DETAILS	
Aims:	Home blood pressure monitoring (HBPM) in hypertension significantly predicts cardiovascular morbidity and mortality, however manual recording can be tedious and underreported. Mobile-health (mHealth) technologies allow clinicians to access electronic BP records, but fidelity to this modality is unknown. This study aimed to determine the fidelity of mHealth-assisted electronic-HBPM versus manual logbook HBPM reporting in primary care setting in Singapore.
Methodology:	A pilot two-arm open randomized controlled trial was conducted on hypertensive patients, aged 40-70 years, in a Singapore polyclinic. HBPM mHealth-assited recording using Bluetooth-enabled BP monitors (Omron-HEM7280T®) via smartphone app (intervention) was compared to manual logbook HBPM recordings (control). The primary outcome was fidelity, defined as percentage of expected number of BP values over 3-weeks as reported by participants. Multivariate model was built and linear regression analysis performed for the primary outcome within each study arm.
Results:	No significant statistical difference in the primary outcome was noted between the intervention (n=39) and the control (n=41) groups, although it was 8.7% higher for the former. When fidelity was limited to 1 week, participants aged 60-69 years in intervention group had higher fidelity than counterparts in control (79% vs 56%, p=0.04). Within the intervention group, the primary outcome was higher in the Chinese (95%CI=8.73-53.83, p=0.008) and Indians (95%CI=19.90-85.71, p=0.003) compared to the Malays.
Conclusion:	Although no significant difference in primary outcome was observed between manual and mHealth-assisted HBPM recordings, the findings suggest higher fidelity for the latter in certain ethnicities, and for older age groups over shorter-term recording.

ABSTRACT SUMMARY

Main-Author Name:	Lok Pui Ng	Abstract Name:	Time spent and factors influencing the physical and sedentary activities of community-mobile elderly in a Singapore regional community
Institution:	SingHealth Polyclinics		
Category:	Medical (Doctors)		

ABSTRACT DETAILS

Aims:	Physical, cognitive and psychological benefits of physical activities (PA) and adverse health outcomes of sedentary behavior (SB) determine successful aging. PA and SB are important measurements to assess active aging. We aim to determine time spent and factors influencing PA and SB of community- mobile elderly subjects from a typical Singapore polyclinic.
Methodology:	An interviewer-administered questionnaire study was conducted among multi-ethnic Asian elderly. PA and SB were assessed using the Physical Activity Scale for the Elderly (PASE score:0 to ≥ 400) and the Sedentary Behavior Questionnaire for the Elderly (SBQE) respectively.
Results:	Among the 400 subjects (73.2% Chinese, 19.6% Malay, 5.9% Indian, 1.3% others, median age 69.6 years, IQR 65.1-76.3), 79% had up to secondary education, 33.5% were employed (including voluntary work), 58.7% had >3 chronic conditions and 11.1% required walking aid. Median PASE score was 110.8 (IQR=73.8-171.6), which decreased significantly with increasing age. Engagement in recreational activities of >3 days weekly was 56.2%, 26.7% and 9.8% for light, moderate and strenuous intensity respectively. Higher PASE score correlated with higher educational level, employment, independent ambulation without aid, and less chronic illnesses ($p<0.01$). Employment significantly influenced PASE score (B=86.4; 95%CI: 66.8-106.1; $p<0.01$). 37% spent ≥8 hours daily on SB while 50.9% watched TV for ≥ 2hours. Employees were twice more likely to engage ≥8hours of SB daily (OR=2.4; 95%CI:1.4- 4.0; $p<0.01$).
Conclusion:	The elderly participants had limited PA and significant SB. Efforts on extending employment, including voluntary community engagement, to increase PA and reduce SB, should be considered.

ABSTRACT SUMMARY			
Main-Author Name:	Hua Yang	Abstract Name:	Knowledge, Attitude and Practices among type 2 diabetes patients and their associated factors in a community population in Shanghai, China
Institution:	Zhongshan Hospital of Fudan University		
Category:	Medical (Doctors)		

ABSTRACT DETAILS	
Aims:	To explore Knowledge, Attitude and Practices (KAP) among type 2 diabetes patients in Shanghai China and associated factors on their KAP
Methodology:	A cross-sectional survey was conducted in patients with type 2 diabetes in six community health centers in Shanghai from December 2014 to December 2016. KAP were evaluated by using the modified Chinese version of the Diabetes, Hypertension and Hyperlipidemia(DHL) knowledge instrument, Diabetes Empowerment Scale–Short Form(DES-SF), and Summary of Diabetes Self-Care Activities(SDSCA).The associated factors on KAP were analyzed using multiple linear stepwise regression analysis
Results:	2169 completed KAP questionnaires were analyzed. The total score of the DHL knowledge instrument was 66.2 ± 20.1. The subscale of "diabetic knowledge" had the highest score of 76.1 ± 24.2, while "lipids knowledge" had the lowest score of 40.4 ± 31.0. The score of DES-SF was 3.9 ± 0.9 and total score of SDSCA was 47.7 ± 14.3. The subscale of "general diet" had the highest score of 81.9 ± 27.7 and "blood glucose monitoring" the lowest score of 15.2 ± 21.8. Multiple linear stepwise regression analysis showed those with higher level of education, positive family history, longer disease duration and coronary heart disease had higher knowledge scores. Those with higher level of education, diabetic family history and stroke had higher attitude scores, while those with longer disease duration had lower attitude scores. Higher practice scores were associated with higher level of education, those on oral medication, insulin, oral medication+insulin and coronary heart disease.
Conclusion:	Lipids knowledge and practice of monitoring blood glucose in diabetic patients were poor, and health interventions should be targeted to improve them

ABSTRACT SUMMARY			
Main-Author Name:	Ang Tee Lim	Abstract Name:	The Effectiveness of Exercise is Medicine Singapore Primary Care Physician (EIMS PCP) Course on Exercise Prescription Patterns in Doctors
Institution:	Zhongshan Hospital of Fudan University		
Category:	Medical (Doctors)		

ABSTRACT DETAILS	
Aims:	Exercise is Medicine Singapore (EIMS) is part of a global initiative promoting physical activity as a tool for preventing and managing chronic disease. As part of this initiative, doctors are educated through the EIMS Primary Care Physician (EIMS PCP) Course on exercise prescription. Surveys were carried out to determine the effectiveness of the course and if this effect is long term.
Methodology:	Self administered surveys were carried out on course participants at 3 time points: prior to the course, immediately after, and 6 months after course completion to ascertain their confidence level on a scale of 0-10 in prescribing exercise, and questions were also asked to identify barriers to exercise prescription.
Results:	The confidence level of participants in giving exercise prescription to their patients increased significantly from a mean score of 3.7 to 6.6 (P< 0.001) immediately after the course and this effect persisted at 6 months after course completion. The proportion of physicians identifying insufficient expertise / knowledge as a barrier to prescribing exercise decreased from 72% pre-course to 19% post-course. Time constraints overtook insufficient expertise / knowledge as the most common barrier.
Conclusion:	Doctors who attended the EIMS PCP Course became more confident in prescribing exercise, with the effect persisting 6 months after the course. The EIMS PCP Course helped physicians gain expertise/knowledge in prescribing exercise to their patients with chronic medical diseases. Future initiatives could focus on methods to make exercise prescription more time efficient.

ABSTRACT SUMMARY			
Main-Author Name:	Qinyi Zhang	Abstract Name:	Quality of Life and Care for Patients with Gout in Primary Care
Institution:	SingHealth Polyclinics		
Category:	Non-medical (Nursing, Allied Health, Medical Students, etc.)		

ABSTRACT DETAILS	
Aims:	Quality of care affects the health outcomes of patients with gout, especially be reducing acute exacerbations and enhancing Quality of Life (QOL). This study aimed to assess the quality of care of patients with gout in a primary care setting in terms of their awareness and avoidance of triggers, gout control (monitoring and treatment of hyperuricemia and frequency of acute gout exacerbations) and QOL.
Methodology:	An assistant-administered questionnaire survey was conducted in two Singapore polyclinics among adult multi-ethnic Asian patients with a diagnosis of gout recorded in the electronic health records. Data collected included demography, clinical status (frequency of acute gout attacks), clinical parameters, laboratory test results (SUA/serum uric acid<6 mg/dL as treatment goal) and QOL (EQ5D).
Results:	272 patients (mean age 58.4 years; 86.8% males; 56.5% had up to secondary education; Chinese 69.2%, Malay 25.1%, Indians 5.7%) were recruited. 73.5%-89.7% were aware of common triggers (red meat (78.7%), bean products (89.7%) and alcohol (73.5%)); 77.6% self-reported teetotalism; 75.7% had SUA tested in past year, of which 24.8% attained treatment goal; 58.8% had ≥2 acute gout attacks in preceding one year; 27.2% had used pain-relief medication in past 1 week; 50.4% were treated with allopurinol. Mean EQ5D index score (range=0-1; higher score indicates better QOL) was 0.8 (SD=0.2); mean VAS (0-100) was 73.3.
Conclusion:	Most patients with gout were aware of the common triggers and had satisfactory QOL, but their quality of care can be further improved with a view to reduce SUA and acute exacerbations.

ABSTRACT SUMMARY			
Main-Author Name:	Sabrina Yi-mei Wee	Abstract Name:	Self-efficacy and its effects in Patients with Hypertension
Institution:	SingHealth Polyclinics		
Category:	Medical (Doctors)		

ABSTRACT DETAILS	
Aims:	Patients' self-efficacy is a reflection of their capacity for self-care behaviour in optimising their blood pressure (BP) control. The study aimed to determine self-efficacy of hypertension patients and the factors associated with higher self-efficacy.
Methodology:	Patients with hypertension, aged 40 years and above, were recruited. Demographics data, clinical history and parameters, diet, prescription and scores using the International Physical Activity Questionnaire (IPAQ), the Medication Adherence Report Scale (MARS-5) and the Hypertension Self-Care Profile (HTN-SCP) scales were collected. The HTN-SCP scores were analysed in association with clinical and process outcome measures such as BP, IPAQ and MARS-5 scores.
Results:	Complete data of 428 patients (median age 65 years; females 50.5%; median BMI 26.7; Chinese 70.1%, Malays 9.3%, Indians 18.9%) were analysed. Chinese ethnicity and lower education level were associated with lower HTN-SCP scores. The scores significantly correlated with adherence to anti-hypertensive medication (MARS-5) (median HTN-SCP=196 for adherence vs 189 for poor adherence, p=0.007), increased physical activity (IPAQ) (median HTN-SCP=180 for low IPAQ vs 194 and 198.5 for medium and high IPAQ) , p=0.002), home BP monitoring (median HTN-SCP=196 for self-monitoring at home vs 188 for no self-monitoring of BP at home, p=0.02), and healthier food options (median HTN-SCP=198 for avoiding unhealthy food vs HTN-SCP=172.5 for those who do not, p<0.01). However, it was not associated with evidence-based BP treatment goal.
Conclusion:	Higher HTN-SCP score was associated with non-Chinese ethnicity, higher education level and self-care behaviour such as medication adherence, physical activities, healthier food selection and home BP monitoring.

ABSTRACT SUMMARY			
Main-Author Name:	Eng How Lim	Abstract Name:	The National Heart Centre Singapore score to estimate pre-test probability of severe coronary artery disease in a local population
Institution:	Duke-NUS Medical School		
Category:	Non-medical (Nursing, Allied Health, Medical Students, etc.)		

ABSTRACT DETAILS	
Aims:	Ischaemic heart disease accounted for 17% of deaths in Singapore in 2016. Although chest pain is a common presenting symptom of ischaemic heart disease in primary care, it is a challenge to identify patients who need further cardiac investigation in a safe and resource-efficient manner. Our aim is to develop a risk score calculator to estimate the pre-test probability of obstructive coronary artery disease (CAD) in a multi-ethnic local population.
Methodology:	A cross sectional study was conducted on 620 patients referred to National Heart Centre Singapore (NHCS) for further evaluation of chest pain symptoms. A binary outcome of the presence or absence of severe coronary artery disease was defined as diameter stenosis ≥70% in any coronary artery by Coronary Computed Tomography Angiography . Multivariate logistic regression analysis using baseline clinical data to determine the pre-test probability of having severe stenosis (NHCS score) was performed. The guideline-recommended updated Diamond Forrester (DF) score was used for comparison.
Results:	Of 620 symptomatic patients analysed 64.8% were males, 11.5% smokers, 47.7% had hypertension, 18.5% had diabetes, 63.9% had dyslipidaemia, 83.7% presented with non-anginal, 11.8% atypical and 4.83% typical anginal chest pain. Using stenosis of ≥70% as the outcome, the area under receiver operator characteristic curve was 0.77 for the NHCS score and 0.72 for the DF method.
Conclusion:	In this study, we developed a risk score calculator, the NHCS score, which performs as well as or better than the DF method in estimating risk of CAD. Further studies would include a validation on a prospective patient cohort.

ABSTRACT SUMMARY			
Main-Author Name:	CHONG YAU ONG	Abstract Name:	Incidence and Mortality Rate of Varicella among End Stage Renal Disease (ESRD) Patients in Singapore General Hospital: a 12-year review
Institution:	Sengkang Health		
Category:	Medical (Doctors)		

ABSTRACT DETAILS	
Aims:	End stage renal disease (ESRD)/ end stage renal failure (ESRF) is on the rise globally and especially in Singapore. Varicella or chickenpox is not uncommon among adults especially ESRD/ESRF patients. We aim to evaluate the incidence and burden of the disease (severity and mortality rates) of varicella/chickenpox infections in patients with ESRD managed in Singapore General Hospital.
Methodology:	A retrospective data collection on patients with varicella infection and ESRD/ESRF from the year 2005 to 2016 was performed. Statistical analysis was conducted using the IBM SPSS (Statistical Package for Social Sciences) Statistics, version 24.0. The association of health care utilization (total length of hospital stay, ICU admission, readmission related to varicella) and mortality with complication due to varicella were tested using chi-square or Mann-Whitney test as appropriate.
Results:	66 patients with ESRD contracted varicella during the study period (2005-2016). The case incidence rates for varicella among ESRD ranges from 0.1-0.26 % yearly. There were 9 deaths (13.6%). Mortality was higher among the ESRD patients with one or more varicella complications compared to patients without complications (p=0.042). Utilisation of intensive or high dependency units were higher among patients with complications compared to those without (p=0.012). Length of stay was twice as long in the group with complications compared to patients without (p=0.065).
Conclusion:	Varicella is associated with high morbidity and significant mortality rate. Varicella vaccination is recommended to this at-risk group population.

ABSTRACT SUMMARY			
Main-Author Name:	Meng Huey Jason Chan	Abstract Name:	Factors affecting Patient Enablement in an Asian Setting
Institution:	SingHealth Polyclinics		
Category:	Medical (Doctors)		

ABSTRACT DETAILS	
Aims:	Patient Centered medical care involves enabling a patient to manage his condition and can be measured with the Patient Enablement Index (PEI). This may be more reflective of a good consultation compared to Patient Satisfaction scores. However, it is unclear what the level of enablement in an Asian context is. The objectives of this study were to investigate how patients with chronic medical conditions rate enablement in an Asian context, and the factors associated with patient enablement.
Methodology:	We conducted a Mixed method study with primary care patients conducted in two phases- firstly, 150 patients completed a questionnaire consisting of socio-demographic information and the PEI, thereafter, a qualitative approach using Focused Group Discussions (FGD) and Individual Interviews (IDI) was used to explore factors associated with high enablement.
Results:	The PEI was found to be 4.5 (Standard Deviation 4.4), with significantly higher scores given by more educated patients and those in specialized primary care clinics. Important physician factors are their advice, attitude and relationship with the patient. Critical system factors involve good continuity of care, workload and financial support. Important patient factors involve a patient's beliefs, preparedness, inquisitiveness and trust, with considerable impact from the influence of the community.
Conclusion:	This study has shown that the PEI score in the Asian context is slightly higher than that recorded in Western studies. Good doctor-patient relationships, efficient systems facilitating continuity of care, and motivated and informed patients all contribute to increase enablement.

ABSTRACT SUMMARY			
Main-Author Name:	Esther Yee Tak Yu	Abstract Name:	Cost-effectiveness of the Risk Assessment and Management Programme for primary care patients with Hypertension (RAMP-HT) – 3-years of experience
Institution:	The University of Hong Kong		
Category:	Medical (Doctors)		

ABSTRACT DETAILS	
Aims:	The cost-effectiveness of primary care programmes encompassing both algorithm-driven cardiovascular diseases(CVD) risk assessment and multi-disciplinary care for patients with hypertension(HT) remains unknown. This study evaluates the cost-effectiveness of the Risk-Assessment-and-Management-Programme(RAMP-HT) for HT patients in Hong Kong.
Methodology:	A prospective cohort study was conducted for 42,490 RAMP-HT participants and the same number of propensity-score-matched HT patients receiving usual primary care in Hong Kong between October 2011 and March 2013, who were without CVD at baseline. The effectiveness measures were cumulative incidences of all-cause mortality and CVD including coronary heart disease, heart failure and stroke over 3 years. Using a bottom-up approach, the programme costs including set-up costs, ongoing intervention costs and central administrative costs of RAMP-HT were estimated from public health service provider's perspective. The incremental cost-effectiveness ratios were calculated by dividing the incremental costs by the incremental effectiveness of the RAMP-HT group compared to those of the usual care group.
Results:	Significantly lower cumulative incidences of any CVD complications(3.6% vs 4.6%,$p<0.001$) and all-cause mortality(2.1% vs 4.8%,$p<0.001$) were observed in the RAMP-HT group compared to the usual care group. The 3-year mean programme cost of RAMP-HT was US$52 per participant. The RAMP-HT costed US$5,452 and US$1,973 to reduce one CVD and death over 3 years, respectively.
Conclusion:	The RAMP-HT integrated into usual primary care was demonstrated to be cost-effective over 3 years. These findings support structured, algorithm-driven CVD risk assessment and multi-disciplinary care in routine primary care for all HT patients to prevent CVD/death and reduce healthcare burden.

ABSTRACT SUMMARY			
Main-Author Name:	Huiling He	Abstract Name:	A non-inferior study comparing standard wet wrap garment versus a customised nanotextile garment on moderate and severe atopic dermatitis
Institution:	Duke-NUS Medical School		
Category:	Non-medical (Nursing, Allied Health, Medical Students, etc.)		

ABSTRACT DETAILS	
Aims:	Atopic dermatitis (AD) is a common chronic skin disorder. The cornerstone of AD management is to hydrate skin. Wet wrap therapy (WWT), using a double layer of wrapping (moist inner layer and dry outer layer), is a widely used adjunctive modality to achieve this goal. The conventional wet wrap material is viscose, which presents drawbacks including discomfort, high cost and poor washing durability. In this research, we explore the possibility of using customized nanotextile in WWT, hoping to prove that this material is non-inferior to viscose in clinical effectiveness and patient acceptance.
Methodology:	42 patients aged between 0-18 years with moderate to severe AD were recruited and randomized to either receiving the viscose (Tubifast™) (N=20) or nanopolyester (N=22) for WWT. Patients' disease severity score (IGA, SCORAD) and quality of life score (IDQOL/CDLQI) were measured on day 0, 7 and 14 of treatment. SCOARD measurement was performed by 2 blinded assessors using photos of patient. Patient survey was conducted to collect patients' subjective feedback about garment use.
Results:	Patients in both groups showed significant improvement in disease severity and quality of life from baseline (time effect p<0.001), and such improvement was similar in two groups. For patient acceptance, nanopolyester garments had significantly better score in terms of comfort level (p=0.031) and easiness to wear (p=0.012).
Conclusion:	This study proves that nanomaterial is as effective as conventional viscose in WWT, while superior in patient acceptance. Nanomaterial therefore shows good potential in AD management and enables better patient care.

ABSTRACT SUMMARY

Main-Author Name:	Hua Yang	Abstract Name:	General Practitioners' knowledge of Diabetic kidney diseases, its screening and management among diabetic patients in community health centers in Shanghai
Institution:	Zhongshan Hospital of Fudan University		
Category:	Medical (Doctors)		

ABSTRACT DETAILS

Aims:	To explore GPs knowledge of Diabetic Kidney Diseases (DKD), its screening and management in six community health centers (CHCs) in Shanghai, China.
Methodology:	A self-reported questionnaire survey on the knowledge of DKD, its screening and management was conducted among a convenience sample of 152 GPs from 6 CHCs in Shanghai China between May 2015 and March 2016.
Results:	138(90.8%) valid questionnaires of DKD knowledge by GPs were collected. The overall accuracy rate of DKD knowledge was 60.2% whereas those of epidemiology, diagnosis, treatment and guideline management of DKD were 62.7% 、 62.8% 、 60.6% and 35.5% respectively. All 152 participants completed the questions on identifying DKD. 113(74.3%) GPs conduct DKD screening and of those, 97(63.8%) chose renal function tests, 86(56.6%) chose urine analysis and 86(56.6%) chose urinary microalbumin, while only 5(3.3%) chose urine albumin creatinine ratio (UACR) the gold standard. When asked "how to treat patients with DKD", most gave the top three correct answers: controlling glucose, using angiotensin-converting enzyme inhibitor(ACEI) or angiotensin II receptor antagonist(ARB) for hypertension control, and a high-quality low protein diet.
Conclusion:	Screening for DKD by GPs in CHCs was inadequate and further training and resources (UACR) should be provided to prevent and detect DKD.

ABSTRACT SUMMARY			
Main-Author Name:	Chun-Yun Gary Kang	Abstract Name:	Prevalence and Factors influencing Adherence to Anti-hypertensive Medications among Adults with Hypertension in a Polyclinic in Singapore: a Cross-sectional Study
Institution:	SingHealth Polyclinics		
Category:	Medical (Doctors)		

ABSTRACT DETAILS	
Aims:	Poor adherence to medication contributes to treatment failure, and adversely affects health outcomes. This study aimed to assess the prevalence and factors influencing patients' adherence to their anti-hypertensive medications in a typical polyclinic in Singapore.
Methodology:	An assistant-administered questionnaire survey was conducted on multi-ethnic Asian adult patients with hypertension. Data on their demographic characteristics, clinical measurements of blood pressure and body mass index, co-morbidities and prescriptions from electronic health records, and adherence to anti-hypertensive medications using the Medication Adherence Report Scale-5 (MARS-5) were collated, audited and analyzed using respective statistical tests. A MARS-5 score of <25 indicates poor adherence.
Results:	The complete data of 395 patients (Female 52.2%; Chinese 79.5%, Malay 6.6%, Indian 11.9%; 25.3% had post-secondary education; 58.5% employed; 67.6% with <$2000 monthly income) were analyzed, of which 189 (46.7%) had poor adherence to at least one anti-hypertensive medication. Bivariate analysis showed that poor adherence was associated with lower mean age (59-year-old vs 63-year-old, P=0.01), higher mean clinic diastolic blood pressure (76mmHg vs 73mmHg; P=0.03) and higher mean weight (70.4kg vs 67.4kg; P=0.04). Logistic regression showed that patients with any one co-morbidity (such as diabetes mellitus, dyslipidemia, stroke and ischaemic heart disease) had poorer medication adherence (OR=0.5; 95%CI=0.29-0.88; P=0.01). There was no significant difference in medication adherence between drug classes, the number or dose frequency of medication consumption.
Conclusion:	Almost half the patients had poor adherence to at least one of their anti-hypertensive medications. Existing co-morbidity, regardless of anti-hypertensive drug classes or regimens, significantly influenced their medication adherence.

ABSTRACT SUMMARY

Main-Author Name:	Kai Cong Seow	Abstract Name:	Assessing the test-retest reliability of the Malay version of the Hypertension Self-Care Profile tool: A validation study
Institution:	Yong Loo Lin School of Medicine		
Category:	Non-medical (Nursing, Allied Health, Medical Students, etc.)		

ABSTRACT DETAILS

Aims:	Optimal management of essential hypertension involves self-efficacy of individuals in conducting self-care activities. The Hypertension Self-Care Profile (HTN-SCP) measures self-efficacy but faces limitation in non-English-literate segments of a multi-ethnic Asian population. A Malay version of the HTN-SCP tool was developed to assess self-efficacy of Malay-literate patients with hypertension in Singapore. The study aimed to assess the test-retest reliability of this translated tool.
Methodology:	145 Malay-literate patients, aged 41-70 years, with essential hypertension were recruited in a polyclinic (primary care clinic) in Singapore. Forty-three percent of them completed both the first and second tests of the HTN-SCP tool with a period of two weeks in between. Computed values of the Intra-class correlation co-efficient (ICC) and Cronbach's alpha were used to evaluate the test-retest reliability and internal consistency of the tool respectively.
Results:	The Cronbach's alpha/ICC values for the "Behavior" (0.851/0.664)), "Motivation" (0.928/0.655) and "Self-efficacy" (0.945/0.682) domains of the modified HTN-SCP tool showed high internal consistency and fair to good reliability. No floor or ceiling effect was found for the "behavior" and "motivation" domains, but borderline ceiling effect (15.2) for "self-efficacy" suggested limited discriminating power of the tool for patients with high self-efficacy. Positive association between HTN-SCP score and reported self-care measures was shown but it was not statistically significant.
Conclusion:	The translated HTN-SCP tool showed satisfactory test-retest reliability and internal consistency amongst the Malay-literate study population. Further research is needed for its application in primary care to identify patients with low self-efficacy for possible intervention.

ABSTRACT SUMMARY

Main-Author Name:	Mohd Mohtar Zulidiah	Abstract Name:	Precision and acceptability of using a novel self-monitoring device to support smoking cessation
Institution:	SingHealth Polyclinics		
Category:	Non-medical (Nursing, Allied Health, Medical Students, etc.)		

ABSTRACT DETAILS

Aims:	Only about 5% of smokers are successful in quitting smoking. Newer strategies to address this gap include leveraging on social media and behavior change model to support the quit attempts. A novel portable carbon-monoxide (CO) monitoring device or "STEADES" linked to a mobile phone app has been developed, which allows instant transmission of CO-related data from the smokers to their selected quit supporters. This feasibility study aimed to determine the precision and acceptability of using the STEADES instrument among smokers in primary care.
Methodology:	15 multi-ethnic Asian adult smokers, aged 21-70 years, were recruited from a typical polyclinic in Singapore. Their exhaled CO were measured thrice serially using a conventional (Bedfont@) smokerlyzer as benchmark, followed by STEADES at baseline, immediately after smoking a cigarette, half-hour and an hour post-smoking. The subjects were trained, used and surveyed on their utility and feedbacks on the STEADES device, including its linkage to the specially-designed mobile phone application in the next 4 weeks.
Results:	Measurements using STEADES were highly correlated with those from Bedfont smokerlyzer, (Pearson Correlation= 0.882, p<0.01). With the use of STEADES, 85.7% perceived the STEADES data would allow them to track progress of their quit attempt, and 92.3% perceived recipients of these data would support their smoking cessation. The subjects reported they would use the STEADES with improved device accuracy.
Conclusion:	The current STEADES device requires further enhancement to increase its accuracy. Majority of subjects were in favor and willing to use it to support their smoking cessation effort.

ABSTRACT SUMMARY

Main-Author Name:	Muhamad Zulhakim zulhakim@u.duke.nus.edu	Abstract Name:	Effect of a Weekly Exercise Intervention Program on Health-Related Quality of Life (HRQoL) of Nurses in a Tertiary Hospital- A Randomised Pilot Study
Institution:	Duke-NUS Medical School		
Category:	Non-medical (Nursing, Allied Health, Medical Students, etc.)		

ABSTRACT DETAILS

Aims:	To assess the effectiveness of participation in an 8-week Exercise Improvement Program on nurses' Health-Related Quality of Life (HRQoL)
Methodology:	In a pilot randomised controlled trial conducted in a Singapore tertiary hospital, sixty inpatient ward nurses were allocated into either Intervention or Control Arms. Participants in the Intervention Arm took part in a supervised 8-week Exercise Intervention Program focused on building trunk endurance, motor control and flexibility. Measurements of HRQoL and performance in a physical test battery were recorded prior to and at the end of the 8-week period.
Results:	Participants in the Intervention Arm showed significant improvement in General Health, Physical and Social functioning scores after adjusting for physical activity throughout the duration of study. Extrinsic factors such as the demands of shift work as well as work commitments were cited as top reasons for reduced compliance.
Conclusion:	The results of this pilot study provide encouraging evidence on the potential effectiveness of a workplace-based exercise intervention program on the occupational health of nurses. It is envisaged that hospital administrators could use these findings as a framework to cultivate a health-conscious work environment.

ABSTRACT SUMMARY			
Main-Author Name:	Jie Gu	Abstract Name:	The prevalence and risk factors analysis of pre-frailty and frailty among Shanghai rural elderly receiving health screening
Institution:	Zhongshan Hospital, Fudan University		
Category:	Medical (Doctors)		

ABSTRACT DETAILS	
Aims:	To explore the epidemiological characteristics and risk factors of frailty in the elderly receiving health screening in the rural area of Shanghai.
Methodology:	This was a cross-sectional study using cluster random sampling. 4323 villagers aged 60 years and above who volunteered for the geriatric health screening project of 2016 national basic public health services were assessed using the Fried frailty phenotype.
Results:	The prevalence of pre-frailty and frailty was 49.4% and 6.8%. The status was changed from robust to frail with the increase in age (P<0.001). In the frail group, 63.9% did not have either disability or comorbidity, 2.4% had both of them. Multivariate logistic regression found, aging (65-74y group: OR=1.442 for pre-frailty and 2.010 for frailty, 75-84y group: OR=3.024 for pre-frailty and 14.132 for frailty, ≥85y group: OR=8.166 for pre-frailty and 71.711 for frailty), female (OR=1.316 for pre-frailty and 1.970 for frailty), stroke (OR=1.751 for pre-frailty and 2.430 for frailty), low vision (OR=1.982 for pre-frailty and 2.695 for frailty) and anemia (OR=1.947 for pre-frailty and 3.641 for frailty) were risk factors for both pre-frailty and frailty. Greater than or equal to 2 symptoms (OR=1.740), heart rate >100bpm (OR=2.481), positive urinary protein (OR=1.679), abnormal activities of daily living (OR=2.974) were risk factors for frailty. Daily physical exercise was protective factor for both pre-frailty (OR=0.761) and frailty (OR=0.419).
Conclusion:	The prevalence of pre-frailty and frailty in the elderly receiving health screening is high and increases with age. Frailty assessment should be performed in the elderly with advanced age, female, stroke, low vision and anemia.

ABSTRACT SUMMARY

Main-Author Name:	Siew Kim Kwa	Abstract Name:	How Well do General Practitioners in Malaysia Manage their Type 2 Diabetes mellitus Patients?
Institution:	International Medical University Malaysia		
Category:	Medical (Doctors)		

ABSTRACT DETAILS

Aims:	Type 2 Diabetes mellitus (T2DM) is a major health concern globally because of its debilitating complications if poorly managed. In Malaysia, it is a leading cause of blindness, cardiovascular disease, renal failure and amputations. Although 15% of diabetics are managed in private general practice, little is known about their care. The objective of this study is to determine the quality of care for T2DM given by General Practitioners (GP) in Malaysia using the Malaysian clinical practice guidelines (CPG).
Methodology:	This is a retrospective study involving GPs throughout Malaysia. Each clinic were asked to submit 10 case records of diabetic patients diagnosed more than a year ago and seen at least three times. We selected 13 quality care indicators from the 2009 Diabetes CPG.
Results:	A total of 27 GP clinics consented to participate, of which 22.2% have no diabetes register and only 25.9% have a recall system for defaulters. Out of the 270 records evaluated, smoking history was obtained in 69.6%, BP measurement (98.5%), BMI measurement (64.4%), feet examination (37.4%) and fundus assessment (29.6%). Investigations ordered were: renal profile (80.4%), lipid profile (81.8%), urine albumin/microalbumin (68.5%) and ECG (43.7%). HbA1c and fasting/random blood sugar were performed on 64.8% and 98.1% cases respectively.
Conclusion:	Good glycaemic control at 45.5% (HbA1c<6.5%) and 43.0% (within ideal fasting/random blood sugar) surpass the 24% in public primary care. Selected private primary practice are capable of delivering high quality T2DM care despite limitation of patients' affordability and practice resources.

ABSTRACT SUMMARY			
Main-Author Name:	ANDREW KIEN HAN WEE	Abstract Name:	"Metformin latest prescribed daily dose" can be used to predict serum vitamin B12 levels in elderly patients with diabetes mellitus
Institution:	SingHealth Polyclinics		
Category:	Medical (Doctors)		

ABSTRACT DETAILS	
Aims:	Metformin-linked vitamin B12 deficiencies are common in elderly patients with diabetes mellitus. Studies show that both the dose and/or duration of metformin use are important predictors of B12 deficiency. Guidelines now recommend the "monitoring of vitamin B12 deficiency", however only in patients with late clinical manifestation of deficiency like "anaemia and peripheral neuropathy". The reason for this is because there is still currently no predictive model that can be used practically and cost-effectively to risk-stratify and case-find the patients most at risk of vitamin B12 deficiency before the occurrence of these and other recognizable but serious consequences of deficiency. We therefore conducted a pilot cross-sectional study of the association of vitamin B12 level with 2 measures of metformin dosing.
Methodology:	Convenience sampling of diabetic polyclinic patients > 65 years was done and 56 subjects were recruited. Multivariable regression analyses with STATA version 13.
Results:	Both "metformin 1-year cumulative dose" (g-year) and the "metformin latest prescribed daily dose" (g/day) were compared. The former had a durational component and the latter lacked one (but was however the easier of the 2 to obtain for future practical use as a predictor). Pearson's correlation was $r = 0.96$, $P<0.0001$ and both predicted vitamin B12 similarly in regression analyses ($\beta =-0.45$, $P=0.001$ and $\beta =-0.42$, $P=0.001$ respectively).
Conclusion:	The "metformin latest prescribed daily dose" can be used as a continuous predictive variable to develop a future risk stratification tool to predict vitamin B12 deficiency in elderly patients with diabetes mellitus.

ABSTRACT SUMMARY			
Main-Author Name:	Annaletchumy Loganathan	Abstract Name:	A qualitative evaluation of a fall prevention education intervention in a Malaysian primary care setting: The MuFE IT Study
Institution:	University of Malaya		
Category:	Main conference (for participants to present completed research, education and/or academic entities)		

ABSTRACT DETAILS	
Aims:	The fall prevention education interventions' effectiveness in reducing falls among older persons is yet less evaluated. The Multifaceted Fall Education by Interprofessional Team (MuFE IT) is a half-day programme consists of a PowerPoint presentation and a booklet delivered by a multidisciplinary team aimed to gather feedback from the MuFE IT participants three months after the intervention.
Methodology:	Older persons aged 60 years and above were recruited from the Primary Care Clinic in a tertiary hospital, Kuala Lumpur. Focus group discussions were conducted using semi-structured interview guide. They were audio-recorded and transcribed verbatim. Thematic analysis was used to identify the main themes.
Results:	Thirteen out of 17 MuFE IT participants (76%) responded. The participants found the following advice affordable and simple: rearranging cluttered furniture, changing to non-slip rugs and fixing fluorescent tape on edges of staircase and curbs. They also found small group discussions a good experience as they were conducted according to their learning pace. Moreover, the interprofessional team was able to tailor their explanation and advice based on the participant's individual fall experience and needs. They found a review of their medications, concept of polypharmacy and shoe advice particularly helpful. The MuFE IT booklet also served as a helpful fall prevention resource which the participants can use at home.
Conclusion:	The participants were more vigilant of fall prevention and took actions to reduce their fall risks after the MuFE IT intervention. A randomized controlled trial is needed to formally evaluate the effectiveness of the MuFE IT intervention.

ABSTRACT SUMMARY			
Main-Author Name:	Prawira Oka	Abstract Name:	Is self-efficacy associated with therapeutic serum uric acid levels in patients with gout?
Institution:	Duke-NUS Medical School		
Category:	Medical (Doctors)		

ABSTRACT DETAILS	
Aims:	Background Self-efficacy is associated with improved treatment compliance and health outcomes in patients with chronic diseases. Patients with gout have to adhere to lifestyle control and treatment to avoid acute exacerbations. The association between their self-efficacy and their attainment of serum uric acid (SUA) <6mg/dL, i.e. therapeutic SUA (tSUA) level, remains unclear. We aimed to determine the relationship between self-efficacy and other patient factors with attainment of tSUA level in adult patients with gout in the primary care setting.
Methodology:	Interviewer-assisted questionnaires were administered in two polyclinics in Singapore between February 2016 and April 2017 to patients with gout documented in their electronic health record (EHR). Self-efficacy was assessed using the Stanford Self-efficacy for Managing Chronic Disease 6-item Scale(SES). Clinical information, allopurinol prescription and laboratory results, including recent SUA, were retrieved from EHRs. Medication Adherence Report Scale (MARS-5) was used to assess allopurinol adherence. Logistic regression analysis was performed to identify the factors associated with tSUA level.
Results:	Among the 206 patients (mean age 58 ±11.7 years;85.9% males; Chinese 68.0%, Malay 24.3%, Indians 4.8%), their mean SUA was 7.3 mg/dL, with 51% of them attained tSUA levels. 51% of them were treated with allopurinol, of which half were adherent to it. tSUA level was significantly associated with female gender (95 CI:1.56-11.80;p<0.01), but not with higher SES score (95%CI:0.72-1.20;p=0.67).
Conclusion:	Female gender but not self-efficacy for managing chronic diseases was significantly associated with achieving tSUA level. Prescription and adherence to allopurinol appeared sub-optimal and requires further reviews.

ABSTRACT SUMMARY			
Main-Author Name:	Huiling He	Abstract Name:	Method of Wet Wrap Application in Atopic Dermatitis
Institution:	Duke-NUS Medical School		
Category:	Non-medical (Nursing, Allied Health, Medical Students, etc.)		

ABSTRACT DETAILS	
Aims:	Wet wrap therapy (WWT), using a double layer of wrapping (moist inner layer and dry outer layer), is a widely used adjunctive modality in eczema treatment. However, the practice of WWT is heterogeneous across institutions in terms of treatment duration and daily in-situ time. In this study, we seek the possibility of using an overnight treatment regimen with short treatment duration for WWT.
Methodology:	50 patients aging 0-18 with moderate-to-severe eczema were recruited and guided to use WWT daily overnight over 14 days. Patients' disease severity score (IGA, SCORAD) and quality of life score (IDQOL/CDLQI) were measured on day 0, 7 and 14 of treatment. SCOARD was measured by 2 blinded assessors using patients' photos.
Results:	The result shows a significant improvement in patients' skin condition and quality of life. SCORAD decreased from 57.28 to 39.89 on day 7 (30.36%, p<0.001), and to 32.22 on day 14 (43.75%, p<0.001). IGA decreased from 3.21 to 2.28 on day 7 (28.97%, p<0.001) and to 1.90 on day 14 (40.81%, p<0.001). IDLQI/ CDLQI decreased from 14.46 to 9.29 on day 7 (35.75%, p=0.0017) and to 8.69 on day 14 (39.90%, p<0.001). 3 out of 50 patients (6%) reported mild skin infection requiring outpatient oral antibiotics after WWT.
Conclusion:	This proves that overnight WWT over 14 days duration is clinically effective and relatively safe. Meanwhile, the overnight treatment and short treatment duration minimizes the impact on patients' normal daily activity. Therefore, this regimen can be used as standard wet wrap protocol with good clinical outcome.