

About MFP

The *Malaysian Family Physician* is the official journal of the Academy of Family Physicians of Malaysia. It is published three times a year.

Goal: The MFP is an international journal that disseminates knowledge and clinical evidence of quality and relevance to primary care. The journal acts as the voice of family physicians, researchers and other members of the primary care team on issues that are relevant to clinical practice.

Scope: The MFP publishes:

- i. Research – Original Articles, Reviews
- ii. Education – Case Reports/Clinical Practice Guidelines/Test Your Knowledge. We only encourage case reports that have the following features:
 1. Novel aspects
 2. Important learning points
 3. Relevant to family practice
- iii. Invited debate/commentary/discussion/ letters/online/comment/editorial on topics relevant to primary care.
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Oral Abstracts

OA1

The Validation of the Malay Yale Food Addiction Scale 2.0: Factor Structure, Item Analysis and Model Fit

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Introduction: The development of a second version of the Yale Food Addiction Scale (YFAS) coincides with the latest updates seen in the diagnosis of addiction as documented in the 5th edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-V). The objective of this study was to translate the YFAS 2.0 into the Malay language and test its psychometric properties in a primary care population.

Methods: Between the year 2017 and 2018, 382 participants were chosen from a regional primary care clinic in the district of Seremban were assessed for food addiction (FA) utilizing the Malay version of the YFAS 2.0. The participants were also assessed for eating disorder using the validated Malay version of the Binge Eating Scale (BES). The psychometric properties of the YFAS 2.0 scale by determined by analyzing factor structure, overall item statistics, internal consistency and construct validity. Both food addiction scores and binge eating severity were associated with diabetic status ($r=0.15$, $p<0.01$; $r=0.17$, $p<0.01$).

Results: The prevalence of FA was 5.0%. A two-factor structure of YFAS was confirmed as the most optimal solution for the scale via factor analysis. In both its diagnostic and symptom count version, the YFAS 2.0 had good internal consistency (Kuder-Richardson alpha > 0.80 and McDonald's omega > 0.9).

Conclusion: We validated a psychometrically sound Malay version of the YFAS 2.0 in a primary care population in both its diagnostic and symptom count version. The questionnaire can be used to develop health promotion strategies to detect food addiction tendencies in a general population.

Keywords: Food addiction; food craving; psychometric properties; validation

OA2

Evaluation of An Elder Abuse and Neglect Education Intervention Among Primary Care Doctors in Malaysia

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Introduction: Primary care doctor (PCD) plays an important role in elder abuse and neglect (EAN) intervention. However, they are not well equipped to intervene in EAN issues given the subtleness of its clinical presentation and sensitivity surrounding this issue. This study aimed to develop an interactive, intensive training program (ITP) and examine its effect on PCDs' knowledge, attitude, subjective norm and perceived capabilities towards EAN intervention.

Methods: An interactive ITP encompasses of three modules were developed based on the literature reviews, expert panels and national health policies and was delivered by the trained tutors based on adult learning theory. Participants' knowledge, attitudes, subjective norm and perceived capabilities to intervene EAN measured at baseline as well as immediate, three and six months after the ITP.

Results: 160 PCDs attended the ITP. PCDs baseline knowledge and perceived capabilities scores were low. Meanwhile the attitude and subjective norm baseline score were moderate. There was a significant improvement in all four domains after the intervention and during the follow up. The baseline knowledge mean score was 5.55(SD=1.99) and improved to 9.31(SD=0.86) ($p<0.001$) at the end of six months. The baseline attitude mean score was 28.49(SD=4.13) improved to 30.91(SD=4.69) ($p<0.001$). Meanwhile baseline subjective norm and perceived capabilities mean scores were 36.81(SD=4.51) and 23.41(SD=3.31) and improved to 40.30(SD=2.82) and 25.05(SD=1.24) ($p<0.001$) respectively.

Conclusion: PCDs have a poor knowledge and perceived capabilities, however, acceptable subjective norms and positive attitude towards EAN at the baseline. An interactive ITP is effective in improving the knowledge, attitude, subjective norm and perceived capabilities of the PCDs.

Keywords: elder abuse and neglect, primary care doctors, education intervention

OA3

Sexual Inactivity and Dysfunctions in Elderly Men: a Systematic Review

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Introduction: The current systematic review was conducted to update the current prevalence and associated factors of male sexual dysfunctions (MSD) in the elderly (≥ 60 years).

Methods: Studies published during 2008-2018 were retrieved from PubMed, EBSCOhost, and ScienceDirect. The data was extracted from 64 studies.

Results: The prevalence of sexual inactivity for elderly men ranged from 15.5% to 79.7%, whereas, the prevalence of erectile dysfunction (ED) varied from 8.3% to 91.7%. The prevalence of severity of ED (mild ED: 3.7% to 77.0%; mild to moderate ED: 5% to 31.6%; moderate ED: 2.8% to

36.8%; severe ED: 7.4% to 58.44%) also varied for elderly. Furthermore, the prevalence of premature ejaculation and delayed ejaculation ranged from 3.61% to 28.8% and 11% to 14.6%, respectively. The prevalence of orgasmic ranged from 0.38% to 90.36%, including the prevalence of anorgasmia ranging from 0.38% to 43.6%. However, 1% to 3.2% men also found sex not pleasurable, 26% to 57.7% had reduced or no sexual desire and 2.41% to 56.6% had sexual dissatisfaction. The MSD was significantly associated with psychological factors (depression, anxiety), cardiovascular diseases (hypertension, ischemic heart disease, and stroke), metabolic diseases (diabetes mellitus, hyperlipidemia, and obesity), lower urinary tract symptoms, arthritis, and prostate disorders.

Conclusion: The prevalence of MSD was high and varied considerably between studies. Therefore, it is suggested that studies should be conducted specifically on MSD in the elderly by using standard methods of assessment and all the details should be reported for better treatment and sexual life.

Keywords: Sexual dysfunction, Elderly, Erectile dysfunction

OA4

Weight Status and Its Association of Self-Regulation Among Secondary School Students in Hulu Langat, Selangor

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Introduction: Obesity in adolescents is a major public health problem in Malaysia. Understanding self-regulation in relation to body weight status is important. The objective of this study was to determine the weight status and its association with the level of self-regulation in maintaining healthy body among secondary school students in Hulu Langat, Selangor.

Methods: A cross sectional study conducted among secondary school students in Hulu Langat district. Those with parental consent were selected and their Body Mass Index (BMI) was calculated and weight status was classified using CDC BMI for age. They were given a set of self-administered questionnaire to gather information on socio-demographic profiles, dietary habits, exercise level and self-regulations. T test was used to measure the association between self-regulation and weight status.

Results: There were 636 students participated in this study and 26.2% of them were overweight and obese. Only 3.1% (21) were amotivated or not interested in maintaining healthy body weight, 52.4% of them had normal weight. Among those who were interested, they had both high external (controlled regulation, with mean (SD) score of 36.4 (9.2) and internal (autonomous regulation, with mean (SD) score of 36.2 (4.4) regulations to maintain healthy weight. There was no association between weight status and autonomous regulation or controlled regulation.

Conclusion: Regardless of the students' weight status, students seem to have similar level of external and internal level of motivation in maintaining body weight. This perhaps warrant for an intervention especially for overweight students to increase their motivation.

Keywords: Self-Regulation, Weight Status, Students

OA5

Glycaemic Control Among Reproductive Age Group Women With Diabetes At Primary Care Clinics In Selangor

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Introduction: About 28.7% of Malaysian diabetic patients are younger than 45 years old with almost equal proportion of male and female. Our greater concern is more women in reproductive age group are affected by diabetes (21.8%). Hence they are susceptible to long-term diabetes complications as well as high-risk pregnancy. Among the diabetic women, only a minority (20-38%) received pre-pregnancy care and achieved good preconception glycaemic control. This study aimed to determine the glycaemic control of diabetic women in reproductive age group attending government health clinics in Selangor and the association between their perceptions on appropriateness to conceive with their current glycaemic control.

Methods: This was a cross-sectional study conducted at nine health clinics in Selangor between April to June 2017. Women aged 18-44 years who registered with National Diabetics Registry (NDR) were recruited and the consented patients answered a self-administered questionnaire. The second section of questionnaire consists of patient's clinical profile was retrieved from medical record.

Results: A total of 279 women participated in this study. The mean HbA1c was 8.7%. Fifty percent of them perceived that they had good diabetes control. Despite 103 (37%) perceived their diabetes status was appropriate for pregnancy, 78% of them actually had poor HbA1c level.

Conclusion: Many diabetic women in the reproductive age group have poor diabetic control. Most of them underestimate the appropriateness of their diabetic control with pregnancy. Besides strengthening pre-pregnancy care services, Cognitive Behavioural Therapy and Motivational Interviewing maybe recommended to improve glycaemic control in this group of women.

Keywords: Diabetic Women, Diabetic control, Perception

OA6

Smartphone Addiction Among Adolescents in Seremban District: Who Are At Risk?

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Introduction: Smartphone overuse is commonly observed particularly among adolescents, leading to smartphone addiction. However, studies on such addiction are still scarce in Malaysia. This study examined the prevalence of smartphone addiction among school-going adolescents and its associated factors.

Methods: A cross-sectional study was conducted between June 2016 and November 2016 among 439 adolescents aged 16 years old from three selected national secondary schools in Seremban, Malaysia. Respondents' socio-demographic and clinical characteristics and pattern of usage was collected using a self-administered questionnaire. The validated Bahasa Malaysia version of the smartphone addiction scale-short version (SAS-SV) and the depression anxiety stress scale 21 (DASS-21) were used to determine smartphone addiction and probable depression respectively.

Results: Majority (82.9%) personally owned a smartphone. Many (48.8%) used it for >5 hours per day, particularly for social networking (94.7%) and entertainment (86.7%). The prevalence of smartphone addiction was 43.5% which was similar between females (43.6%) and males (43.3%). Factors that were independently associated with smartphone addiction were: Malays ($p=0.002$, adjusted OR:2.34, 95% CI:1.38-3.97), family monthly income of <RM2000 ($p=0.045$, adjusted OR:1.83, 95% CI:1.01-3.31), >5 hours per day usage ($p=0.031$, adjusted OR:1.98, 95% CI:1.07-3.67), data monthly usage of between RM50 and RM100 ($p=0.015$, adjusted OR:2.42, 95% CI:1.18-4.95), and probable depression ($p=0.005$, adjusted OR:1.98, 95% CI:1.23-3.19).

Conclusion: The prevalence of smartphone addiction was high. The study has found that those who are at risk for smartphone addiction were Malay ethnicity, adolescents with lower socioeconomic status, longer duration of smartphone use with average cost spent between RM50 to RM100 per month on their usage and having probable depression.

Keywords: Smartphone addiction, Adolescents, Depression

OA7

Predictors of Mortality Among Patients Receiving Domiciliary Healthcare Services (DHS) in Klang District, Malaysia.

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Introduction: In view of the increasing prevalence of stroke and other debilitating diseases, the DHS was introduced since 2014 in Malaysia. This study aimed to identify the variables which best predicted mortality in a cohort of stable bedridden patients living at home that were provided with DHS by the primary healthcare teams in Klang district, Malaysia.

Methods: A retrospective cohort study was conducted on all patients registered for DHS in the 7 public primary care clinics in Klang District from 2014 to 2017. The multiple logistic regression analysis was used to identify factors associated with mortality outcomes of these patients at the end of the 3-months.

Results: A total of 141 patients registered for DHS from 2014 to 2017 in Klang district. Majority of the patients were male (56.2%) and above 60 years old (67.9%). During the 3-months program, 43 patients (30.5%) died. Bivariate analysis showed that impaired conscious level, presence of visual and hearing impairment, unable to speak and presence of pressure ulcers were significantly associated with higher risk of mortality. Multiple logistic regression analysis showed that the risk of mortality increased with the presence of hearing impairment [(AOR=5.94 (2.40-14.74)] and pressure ulcers [AOR=2.45 (1.01-5.93)] during enrolment.

Conclusion: This study showed that the presence of hearing impairment and pressure ulcers are predictors for mortality among patients receiving DHS. The mortality risks predictors could help primary care teams to make appropriate interventions for these patients. Hence, this could improve the overall DHS outcomes and quality of life of these high risk patients.

Keywords: (maximum 3 only) primary care, domiciliary care, mortality

OA8

Role of IPT Prophylaxis in Preventing Tuberculosis Among HIV Patients in Johore: A Cross Sectional study

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Introduction: It is known that Isoniazide prophylaxis therapy (IPT) helps to prevent progression of active tuberculosis among patient with HIV (PLHIV). In Johore, IPT was started since 2012 to all eligible patients. This clinical study aimed 1) to determine the socio-demography characteristic of the PLHIV who was received IPT, and 2) to determine the risk factors contribute to active tuberculosis among them.

Methods: This was a cross sectional study conducted on PLHIV aged 18 and above, who were under the follow up of health clinic across the 10 districts in Johor. The period of data collection was conducted between May 2018 until November 2018. Their medical records were reviewed and analysed using a structured audit form.

Results: A total of 858 patients were recruited. Majority of them were males (81.6%), with mean age of 38.1 ± 11.05 years. More than half of them were single (62.7%), and 35.9% was diagnosed via active detection. Among them, 87.3% was given HAART, in which the mean of diagnosis-to-commencement duration was 1.96 ± 3.74 years. IPT was started among 575 (76.4%) patients, and 92.6% had completed the treatment. The incidence of active tuberculosis after IPT was 10.5%. Compare to a patient who was initiated IPT, a patient who was not initiated IPT were 7.725 more likely to developed PTB among all PLHIV (OR 7.725; 95% CI 4.633-12.880). Moreover, a patient who has not completed IPT were 11.013 more likely to developed PTB compare to those who were completed IPT (OR: 11.013; 95% CI 3.916-30.972).

Conclusion: We concluded that IPT should be initiated to all eligible PLHIV, and ensuring completion of IPT was even more important in preventing active tuberculosis in future.

Keywords: IPT, PLHIV

OA9

UKMSTROKIT: A Web-Based Educational Package Tool for Longer-Term Care of Stroke Patients: A Pilot Randomized Controlled Trial

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Introduction: Stroke is a debilitating chronic illness in which patients' education and rehabilitation play major role in managing stroke patients in community. UKMStrokIT is a newly developed web-based educational intervention aiming to improve stroke knowledge, functional improvement and quality of life among stroke patients.

Methods: A pilot randomized controlled trial involving a total of 30 patients were recruited from Primer Clinic and Physiotherapy Unit of Universiti Kebangsaan Malaysia Medical Centre (UKMMC). Patients were randomized using single blinded randomization technique with a computer-generated random number. Intervention group received three sets of online videos. Pre and post assessments were done using Modified Barthel Index (MBI) questionnaire, Quality of Life (QOL) questionnaire and 25-item Stroke Knowledge questionnaire. Intention-to-treat analysis approach was used.

Results: A total of 113 stroke patients were approached, however only 30 patients participated in this study. At post intervention, there was an increment of stroke knowledge scores among video group ($p=0.015$) as compared to control group ($p=0.592$). Although there was slight improvement in functional status and QOL within intervention group, however it was statistically not significant

Conclusion: Video-based intervention may provide better understanding on stroke knowledge among stroke patients. Hence, UKMStrokIT can be opted as an additional educational material for stroke survivors during consultation.

Keywords: Stroke, smartphone, self-management, rehabilitation

OA10

Breast Cancer Awareness and Utilization of Screening Programs Among Different Ethnic Groups in Melaka, Malaysia

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Introduction: Breast cancer is the commonest malignancy among Malaysian women. This study aimed to identify

awareness of breast cancer symptoms, self-reported utilisation of screening programmes, and barriers towards screening among different ethnic groups in Malaysia.

Methods: A cross-sectional community survey was conducted in Melaka by quota sampling between April-May 2018. Data was collected through face-to-face interviews by using the Breast Cancer Awareness Measure-Malay language (B-CAM-M).

Results: In total, 251 participants from the three major ethnic groups (Malay, Chinese and Indian) were recruited. The majority of the women (90%) aware of lump-related symptoms. However, about half of the participants were not aware of some non-lump-related symptoms. Half of the participants (52.2%) reported that they performed monthly or weekly self-breast checking; however, only 27.5% reported that they were very confident to detect changes. Among the participants, 44% reported that they utilised clinical breast examination within the last year, and 34% underwent mammogram within the last two years. The most common barrier towards screening was "Worrying about what the doctor might find", and Malay ethnic group was found to be higher compared to Chinese and Indian ($P<0.001$). Indian women demonstrated a greater level of awareness about breast cancer symptoms, self-breast checking practice, and utilisation of screening compared to Malay and Chinese ($P<0.5$).

Conclusion: The awareness level of lump-related symptoms was high, however, non-lump related symptoms of breast cancer is still needed to be improved. Awareness of breast cancer symptoms and screening programmes should be improved by well-structured public awareness interventions in Malaysia.

Keywords: Breast cancer awareness, Breast cancer screening, Malaysian women

OA11

Non-Alcoholic Fatty Liver Disease (NAFLD) and The Cardiovascular Disease (CVD) Risk Categories in Primary Care: Is There An Association?

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Introduction: Non-alcoholic fatty liver disease (NAFLD) is an emerging novel cardiovascular disease (CVD) risk factor and its prevalence is increasing globally. However, there is paucity in the evidence showing the association between NAFLD and CVD risk in primary care setting. Therefore, the objectives of this study were to determine the prevalence of NAFLD according to CVD risk categories and the factors associated with NAFLD among patients attending UiTM Primary Care Clinic.

Methods: A cross sectional study was conducted in UiTM Primary Care Clinics. Patients aged ≥ 18 years with ≥ 1 risk factor for NAFLD or CVD were recruited using convenience sampling. Participants with history of established liver disease or chronic alcohol use were excluded. Socio-demographics, clinical related data and anthropometric measurements were recorded in a proforma. Blood investigation results were traced from the medical records. Abdominal ultrasound was performed and diagnosis of NAFLD was made using standardised criteria by a radiologist. The 10-year CVD risk for each participant was calculated using the general Framingham Risk Score (FRS) calculator for use in primary care. Multiple logistic regression was performed to identify independent factors associated with NAFLD.

Results: A total of 263 participants were recruited. The mean age was 52.3 ± 14.7 years old. Male and female were equally distributed with 50.2% of the participants were male. Regarding ethnicity, 79.8% were Malays, 15.2% were Chinese and 7% were Indian/others. The overall prevalence of NAFLD was 54.4% (95%CI 48%, 60%) and it was higher in males (62.9%, $p=0.005$). NAFLD was also more prevalent in participants who were employed (60.3%, $p=0.023$). Regarding FRS category, participants in the high FRS category have higher prevalence of NAFLD (65.5%), followed by those in the moderate category (55.4%) as compared to those in the low category (46.3%), $p=0.025$. On multiple logistic regression analysis, independent factors associated with NAFLD were being employed (OR=2.44, 95% CI 1.26-4.70, $p=0.008$) obesity with BMI ≥ 27.5 (OR=2.89, 95% CI 1.21-6.91, $p=0.017$), elevated fasting glucose ≥ 5.6 mmol/L (OR=2.79, 95% CI 1.44-5.43, $p=0.002$), ALT ≥ 34 U/L (OR=3.70, 95% CI 1.85-7.44, $p<0.001$) and high FRS category (OR=2.82, 95% CI 1.28-6.23, $p=0.010$).

Conclusion: NAFLD is highly prevalent in UiTM Primary Care Clinics, especially among those in the high FRS category. Patients who were obese, have elevated fasting glucose, elevated ALT and in the high FRS category were more likely to have NAFLD. This study underscores the importance of screening for NAFLD in those with risk factors in primary care. Aggressive intervention must be targeted in those with NAFLD in order to reduce CVD complications and risk of progression.

Keywords: Non-alcoholic fatty liver disease (NAFLD), cardiovascular disease (CVD) risk factor, Framingham Risk Score (FRS), primary care

OA12

Maternal Satisfaction Towards Intrapartum Care of Designated Health Facilities and Its Associated Factors Among Postnatal Women Attending Klinik Kesihatan Salak

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Introduction: The World Health Organization recommends evaluation of maternal satisfaction to improve quality and effectiveness of healthcare during childbirth. This satisfaction is used as secondary prevention to maternal mortality by preventing and reducing the complication during childbirth.

Dissatisfaction to this lead to multiple undesired outcomes such as unassisted homebirth, delayed in seeking treatment or non-adherence to treatment given. This study aimed to determine the maternal satisfaction towards intrapartum care of designated health care facilities and its associated factors among postnatal women attending Klinik Kesihatan Salak.

Methods: This was a cross-sectional study conducted from December 2017 to February 2018. Systematic random sampling with 1:3 ratio was applied. Respondents were given a set of self-administered questionnaires that include their sociodemographic background and a validated 14-items Maternal Satisfaction with Hospital-based Intrapartum Care Scale. Data was analyzed using SPSS 23.

Results: 286 respondents were recruited in this study. Overall, only 21% of respondents were satisfied with the intrapartum care given. The level of satisfaction was highest in interpersonal care domain (35.7%), followed by physical birth environment (33.9%) and the least satisfied was information and decision making (28%). Binary logistic regression showed that maternal satisfaction was significantly associated with labour complication (AOR: 0.354, 95% CI: 0.127, 0.988).

Conclusion: The overall maternal satisfaction towards intrapartum care was low and the information and decision-making domain appeared to be the least satisfied. Maternal satisfaction was associated with labour complications. Therefore, health care providers should emphasize and improve the quality of services especially in terms of this domain and to consider factor that contribute to low satisfaction towards the intrapartum care.

Keywords: Intrapartum care, Maternal satisfaction, Healthcare facilities

OA13

The Reliability and Validity of The Malay Version of Patient Activation Measure

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Introduction: Managing diabetes requires both pharmacological treatment and patients' commitment to self-care. Patient Activation Measure has been widely used as the instrument to assess patients' readiness and capability to self-manage their health condition. The purpose of the study was to produce a translated Malay version of Patient Activated Measure and to conduct a reliability and validity assessment.

Methods: A cross-sectional study among patients with type 2 diabetes was performed in a primary care clinic. The forward and backward translation was done, followed by pre-testing and cognitive interviewing. Data from 130 patients were analyzed with SPSS software to assess the

internal consistency and the factor structure of the Malay version.

Results: The Cronbach's alpha for all items was 0.87, indicating good internal consistency. Exploratory factor analysis revealed a possibility of the three-factor model which were labeled as a) confidence in performing preventive behaviors b) feel responsible and in charge of own health, c) knowledge, ability to communicate and adhere to treatment. All items had factor loading above 0.4. The Cronbach's alpha was 0.85, 0.7 and 0.58 for first, second and third subscales respectively.

Conclusion: The Malay version of the Patient Activation Measure is a reliable instrument to assess patient activation in diabetes care. Besides assessing patients' overall score, it may be useful for healthcare providers to evaluate these three subscales that make up the whole concept of patient activation. This will make our effort easier in responding to patients' needs and assisting them towards becoming effective health managers.

Keywords: patient activation, reliability, validation

OA14

The Incidence of Diabetic Retinopathy Among Type 2 Diabetes Mellitus Patients and Associated Factors in A Primary Care Clinic in Selangor: A Retrospective Cross-Sectional Study

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Introduction: Diabetic retinopathy (DR) is one of the commoner microvascular complication of Type 2 diabetes mellitus (T2DM) which often leads to irreversible visual loss. This study aims to ascertain the incidence of DR, and to find out the association between HbA1c levels and other associated factors with the occurrence of DR in a primary care setting at Klinik Kesihatan Puchong.

Methods: This is a retrospective cross-sectional study involving 2131 patients with T2DM who had documented annual fundal camera screening done in 2018. Socio-demographic, HbA1c and the findings of the fundal camera screening were captured. Data analysis was done with SPSS 23.0. A p value <0.05 was taken as significant.

Results: Majority of the patients (1229, 57.7%) were female and of Malay ethnicity (897, 42.1%). The mean HbA1c was 8.4±2.1%. The incidence of DR was 18.6% (397 patients). Non-proliferative DR (NPDR) comprised 98.2% (390 patients of which 58.9%, 36.8% and 2.5% were categorized as mild, moderate and severe NPDR, respectively) while Proliferative DR comprised only 1.8% of the cases. On univariate analysis, factors associated with the occurrence of diabetic retinopathy were age (OR=0.974, 95% CI=0.964-0.984, p<0.001), gender (OR=1.25, 95% CI=1.007-1.56, p=0.043), Chinese ethnicity (OR=0.670, 95% CI=0.5-0.899, p=0.008) and higher HbA1c levels (OR=1.3, 95% CI=1.232-1.364, p<0.001). On multivariate analysis, it was found that being male,

younger and with a higher HbA1c levels were predictors of developing DR (p<0.05).

Conclusion: The incidence of DR was high. Groups found to have a higher risk of having DR should be targeted for earlier detection of DR through diabetic education and targeted screening.

Keywords: Diabetic retinopathy, Incidence, Factors

OA15

Prevalence and Correlates of Diabetes Distress and Depressive Symptoms Among 1184 Adults with Type 2 diabetes in 12 Public Health Clinics in Kedah Malaysia (EDIPEQS-DD): A Cross-Sectional Study

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Introduction: Diabetes distress (DD) and depressive symptoms (DS) are increasingly important parts of diabetes care and research. This study examined the prevalence of DD, DS and their correlates.

Methods: Consecutive sampling between March and June 2018 recruited people with type 2 diabetes (T2D) for more than one year, ≥ 18 year-old, non-pregnant/-lactating/-psychotic, had ≥ two visits in the past year and recent laboratory results (< 3 months) and able to read/understand English, Malay or Mandarin. Questionnaires were used to evaluate DD (17-item Diabetes Distress Scale), DS (9-item Patient Health Questionnaire) and Patient Assessment of Chronic Illness Care (PACIC). Multiple imputations, Spearman's correlation and Chi-square test were completed with SPSS 25.0.

Results: Of the 1184 participants (94.1% response rate), female 60.8%, Malay 76.4%, married 88.9%, and at least secondary education 76.7%. The mean (SD) age was 55 (10) years, diabetes duration 7.2 (5.4) years, and HbA1c 8.8% (2.3). Prevalence of DD was 51.3%; DS was reported in 40.3%. DD and DS correlate moderately (r = 0.59, P < 0.001), both correlate with threatening perception of T2D (r = 0.43&0.35) and higher HbA1c (r = 0.18&0.12); correlate negatively with diabetes quality of life (r = -0.55&-0.56), self-efficacy (r = -0.29&-0.24), self-care activities (r =

-0.25&-0.12) and PACIC ($r = -0.18\&-0.10$). Higher DD and DS were associated with diabetes-related complication, life events, lower health literacy, poor social support, needs for information and educational program.

Conclusion: DD and DS are common among the adult T2D in Kedah. Appropriate support programs are required soonest possible.

Keywords: Diabetes Distress, Depression, Type 2 Diabetes Mellitus

OA16

Relationship Between Health Literacy, Knowledge of Cervical Cancer, Knowledge of Pap Smear and Attitude Towards Pap smear.

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Introduction: Cervical cancer is a preventable disease with good awareness in Malaysia yet poor uptake of Pap smear. Measuring health literacy level could explain this discrepancy. This study aims to determine the health literacy, level of knowledge of cervical cancer and Pap smear among women attending pre-marital course.

Methods: A cross sectional study was performed in three randomly selected courses organised by Jabatan Agama Islam Selangor (JAIS). All Malay Muslim women aged 18-40 years old were recruited while non-Malaysian, illiterate, and had hysterectomy were excluded. Validated self-administered questionnaires used were European Health Literacy Questionnaire (HLS EU-16 Malay) and Knowledge, Attitude towards Cervical Cancer and Pap Smear Questionnaire. Multiple linear regression was used to measure the relationship of independent variables with attitude towards Pap smear.

Results: Total of 417 participants recruited with mean age of 24.9 ± 3.56 years old. Prevalence of awareness of cervical cancer was 91.6% ($n=382$, 95% CI 89.0%, 94.2%) mean percentage score $60.3\% \pm 6.1$, average category. Prevalence of awareness of Pap smear was 59.0% ($n=246$, 95% CI 54.2%, 63.8%), mean percentage score 80.2 ± 6.5 , good category. The health literacy mean score was 13.3 ± 3.6 , sufficient category. The mean percentage score of attitudes towards Pap smear was 64.8 ± 9.3 , average category. Multiple logistic regression analysis demonstrated significant linear relationship between health literacy ($p=0.01$) and knowledge of Pap smear ($p<0.01$) with attitude towards Pap smear.

Conclusion: A sufficient health literacy with good knowledge of Pap smear improves the attitude towards Pap smear.

Keywords: Health literacy, Pap smear, Cervical cancer

OA17

Perceived Stress Among Caregivers of Children with Autism Spectrum Disorder: A State-Wide Study

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Introduction: Caregivers of children with autism spectrum disorder (ASD) experience increased stress and more significant negative caregiving consequences than those with typically developing children. There is a lack of studies specifically focusing on stress among caregivers with ASD children in Asian countries. The current study examines levels of perceived stress and factors associated with it among caregivers in Kelantan, Malaysia

Methods: In a cross-sectional study, the Malay version of the Perceived Stress Scale (PSS) was administered to 227 caregivers of children with ASD. The caregivers were recruited from ASD databases in four tertiary hospitals in Kelantan and a meeting was set up during the child's follow-up in the clinic. Multiple linear regression analyses were applied to determine the predictors of perceived stress

Results: The mean total perceived stress score was 20.84 (4.72). This was considered higher than average. Higher perceived stress was significantly predicted among caregivers who live far from the health institution, caregivers who do not own transportation to bring the child to the treatment center, and caregivers who have an ASD child with a learning disability

Conclusion: Caregivers of an ASD child perceived significant stress while taking care of their children. Institutions should alleviate the factors that were predicted to increase the caregivers' perceived stress to improve the quality of the lives of children and ASD families as a whole

Keywords: perceived stress; caregivers; autism spectrum disorder

PP01

Weaning practices among mothers of infants aged 6 to 12 months at Sungai Mati Maternal and Child Health Clinic. Where are we now a decade later?

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Introduction: The recommended timing for weaning infants is at the age of 6 months. However, adherence to this recommendation varies widely across many countries. In 1995, around 62.8% of mothers in Kemaman started weaning at the age of 4 to 6 months. This study described the current weaning practices among mothers of infants aged 6 to 12 months at a public health clinic in suburban Johor.

Methods: This was a cross-sectional survey among mothers of infants aged 6 to 12 months attending Sungai Mati Maternal and Child Health Clinic (MCHC). They were conveniently sampled from the waiting area of the MCHC. The survey collected the respondents' sociodemographic data, as well as their weaning practices, including the infant's age at weaning, feeding frequency, dietary diversity and food appropriateness. Descriptive analyses were done.

Results: A total of 268 mothers were recruited. While most mothers started weaning their children at 6 months (83.6%), only 68.3% fed their child at appropriate daily frequencies. Almost all mothers (91.8%) provided good dietary diversity comprising various food groups. However, 12.3% of mothers gave their children inappropriate food such as sugary food or low nutritional drinks.

Conclusion: More mothers are weaning their infants at the age of 6 months compared to more than a decade ago. However, mothers may require more education on appropriate feeding frequencies and choice of food for weaning their infants, to ensure that infants receive appropriate nutrition during this period of growth.

PP02

When exercise goes wrong: exercise-induced rhabdomyolysis encountered at general practice (GP) setting

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Introduction: Exercise-induced rhabdomyolysis is a condition in which muscle necrosis occurs following exercises and it potentially cause serious complications. Since high intensity exercises are becoming more popular, general practitioners (GPs) may encounter more of this condition. This report is to describe this condition in the context of general practice setting.

Methods: All cases of Exercise-induced rhabdomyolysis diagnosed by GPs from 1st January 2017 until 31st

December 2018 at Jerudong Park Medical Centre were retrieved via the clinic computerized record system. Each case was then studied individually, and review of related literatures was done.

Results: A total of 11 cases were recorded with male-female ratio of 4:7 ranging between 23 to 76 years old (average \pm S.D. = 35 ± 15 years). Ten patients were healthy individuals without any premorbid. Seven cases were induced by 'Spinning' exercise (high intensity stationary bike exercise) for the first time and they presented with thigh pain. Three patients had generalized body ache and one patient had bilateral calf pain. Average presentation was at day 3 post-exercise, but it may be as late as day 7 post-exercise. Nine cases required hospitalization, but two of them refused admission. The highest serum creatinine kinase (CK) at presentation was 239 856 U/L, whereby the patient developed acute kidney injury and compartment syndrome requiring transfer to a specialized care.

Conclusion: Spinning exercise can induce rhabdomyolysis amongst novice bikers. Acute kidney injury and compartment syndrome may occur as serious complications of this condition.

PP03

Adult Langerhans Cell Histiocytosis: a case report of an unusual cause of referred knee pain

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Introduction: Langerhans cell histiocytosis (LCH) in adults is rare and is regarded as an 'orphan disease'. The systemic symptoms of LCH can mimic many other undifferentiated diseases seen at a primary care level. The failure to diagnose and delays in referral are common pitfalls in the management of this disease. We present a case of a 34 year old woman with referred knee pain who was eventually diagnosed with multi system LCH 4 years after the initial presentation.

Methods: We present a case of a 34 year old woman with referred knee pain who was eventually diagnosed with multi system LCH 4 years after the initial presentation.

Results: The mean age of presentation of LCH symptoms in adults is at 33 years. Most adults have a multi system manifestation of LDH. Bone lesions are the frequent presentation of LCH in adults. Endocrine involvement of LCH is seen in the form of diabetes insipidus (DI) which remains the commonest extraskeletal presentation of LCH in adults. Definitive diagnosis of LCH is established through the analysis of tissue biopsy.

Conclusion: The proper management of LCH in adults require careful history taking, high index of suspicion and an urgent referral.

PP04

The development integrated behavioural model of patient compliance with diabetes medication: a mixed-method study protocol

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Introduction: There has been a shift in worldwide disease burden from infections to non-communicable diseases (NCD), especially Type 2 diabetes (T2D). Behavioural change and self-management is key to optimal T2D control. Several universal models of diabetic care have been proposed to help explain the dimensions of T2D self-care such as medication adherence, physical activity, diet and patient-doctor interaction. These models do not allow an objective and quantifiable measurement of the problems faced by patients in terms of medication compliance.

Methods: A cross-sectional study will be conducted at a regional primary care clinic using a mixed-method technique. First, a Grounded Theory qualitative inquiry will be used to investigate predictors of medication adherence in T2D patients. Consequently, the elements derived from the interview will be incorporated into the Theory of Planned Behaviour framework to generate an integrated behavioural model. This model will then be used to quantify the factors related to compliance with medication amongst T2D patients.

Conclusion: The framework developed here could help in the design of policies to optimize T2D control by identifying lapses in patients' intake of diabetic medications. This can be done by exploring the patients' fundamental and unarticulated belief system via a naturalistic approach adopted in this study. The properties of the framework can be replicated in other settings to serve as a benchmark for quality improvement in T2D patient care.

PP05

Effectiveness of an algorithmic approach to modify antibiotic prescribing patterns in upper respiratory tract infection in a primary care clinic in Klang

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Introduction: The rapid emergence of antimicrobial resistance due to misuse or overuse of antibiotics is a global phenomenon. The objective of this study was to assess the effectiveness of using an algorithmic approach to modify the antibiotic prescribing patterns in patients with upper respiratory tract infection (URTI) in primary care.

Methods: A cross sectional study was conducted from October to December 2018 at Klinik Kesihatan Bandar

Botanic in Klang district, where prescriptions prescribed for URTI were collected during a pre-intervention and post-intervention phase. Intervention tool used was an URTI clinical pathway algorithm available in the Malaysian Antimicrobial Stewardship program. Twenty-one medical officers were educated about the URTI algorithm via a continuous medical education and the intervention tool was used as a prescriber aid at point of prescribing. The sample size calculated was 353 samples for the pre- and post-intervention phase respectively.

Results: A total of 738 prescriptions were analysed with 355 prescriptions for pre-intervention and 383 prescriptions for post-intervention phase. There was a significant reduction in antibiotic prescribing rates from 16.1% in pre-intervention phase to 9.9% in post-intervention phase ($p=0.013$). The appropriateness of the antibiotic prescribed was significantly increased from 23.8% in pre-intervention phase to 42.1% in post-intervention phase ($p=0.045$).

Conclusion: Based on this study, the algorithmic approach for URTI is effective as there was a statistically significant reduction in the antibiotic prescribing rates and an increase in appropriateness of the use of antibiotic. Hence, the intervention used in this study should be advocated in the primary care setting.

PP06

Health care awareness, appropriate help seeking and barriers in seeking health care among asnaf in Seremban, Negeri Sembilan

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Introduction: The health morbidity and mortality are reported to be higher among low socioeconomic status. Asnaf is categorised as such, whom received financial aid for expenses including health. The aimed of the study was to assess the asnaf's health care awareness, appropriate help seeking and barriers in seeking health. The information would help to strategies better health care delivery to the asnaf.

Methods: This cross sectional study through convenient sampling were conducted in some areas in Seremban Negeri Sembilan for 3 months duration. Inclusion criteria were adult asnaf attending "Jejak Asnaf Programme". Data such as sociodemographic, the health awareness and appropriate help seeking and barrier in seeking health care via questionnaires were obtained. Descriptive analysis was performed.

Results: 109 respondents enrolled where the respondents' mean age was 59.9 ± 14.0 year. The majority were female and Malay. Their health care awareness was appropriate when more than 2/3rd of the respondents aware the need to see doctors when sick, majority perceived health is important and that unhealthy life-style such as taking alcohol and smoking is bad. The majority (78.0%) seek medical treatment from medical healthcare when indicated. Only small percentage had poor help seeker (2.8% didn't seek medical help, 1.8% self-medicate and 0.9% seek traditional healer). Transportation is the main barrier followed by distance issues.

Conclusion: This study demonstrated that asnaf still has good awareness on health although some studies reported otherwise. The barrier in seeking health care is corresponding with previous studies. Transportation and distance issues need to be managed for better health care among asnaf.

PP07

A review: pelvic floor muscle exercise via mobile applications in managing urinary incontinence.

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Introduction: Pelvic floor muscle exercise has been proven effective in the management of urinary incontinence. The technique of performing the exercise is taught through various medium such as in formal classes, group exercise, internet and mobile applications. The purpose of this review is to search current evidence on the effects of pelvic floor exercise taught through mobile applications on the urinary incontinence.

Methods: Search strategy: Articles published in English from 2000 – 2019 were searched using PubMed and Medline. The search terms were “pelvic floor muscle exercise”, “pelvic floor muscle training”, “pelvic floor exercise”, “Kegel exercise”, AND “urinary incontinence” AND “mobile applications”, “apps”, “mobile apps”. Selection criteria: Randomized controlled trials using mobile applications as an intervention on women suffering from urinary incontinence were included. Data collection and analysis: Baseline and outcome data of urinary incontinence were compared between mobile apps and control group.

Results: Only two trials met the selection criteria. Both trials showed mobile application use had significantly improved urinary incontinence experienced by the women compared to the control group. One of the studies that involved 62 women showed that with the use of mobile application had reduced incontinence score by 3.9 from baseline compared to the control of only 0.9 score ($p < 0.001$).

Conclusion: Mobile application has a promising role as an intervention in managing urinary incontinence. This can be a future mode to be used in delivering pelvic floor muscle exercise among pregnant women as pregnancy has high risk of urinary incontinence.

PP08

Persistent low CD4 counts despite suppressed viral load on cART: a report of reversible immunological failure in HIV patient

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Introduction: Poor immunologic response despite virologic suppression is uncommon among HIV patient who is well adhered to combination antiretroviral therapy (cART). However, it has been a dilemma in a primary care setting in approaching this case in view of risk of clinical disease progression and inconclusive consensus on the need for switching the cART regimen. We report a case of suspected immunological failure in a 40-year-old man with retroviral disease who adhered well to antiretroviral therapy with concomitant stable chronic hepatitis C infection for past 18 months. His CD4 counts maintain persistently at low level of between 50 to 70 cells/mm³ with undetectable viral load. He adhered to his medications. Despite lack of specific recommendations, we decided to change his zidovudine/lamivudine and efavirenz combination therapy to tenofovir/emtricitabine and efavirenz combination. Unexpectedly, his CD4 counts increased with the change of the cART regimen.

Conclusion: This case indeed has proved that immunological failure may in fact very much related to individual drug response that may require the need for changing the regimen based on individualized indications. It highlights the need for further clinical trial in managing immunological failure in a good adherence patient towards first line treatment after ruling out other possible causes of poor immunological response. It supports the use of tenofovir/emtricitabine combination as the drug of choice in cART compared to another available drug combination as recommended in our latest local guideline.

PP09

Patients' satisfaction regarding waiting time during follow up: an audit among hypertensive patients in Klinik Kesihatan Mahmoediah, Johor Bahru

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Introduction: Waiting is a common phenomenon in any clinical settings. In Malaysia, the average waiting time is 1 to 2 hours. This has been a major concern since waiting time is one of the main factors that affect patient satisfaction.

This study aims to evaluate the extent of patient waiting time 2. To assess level of patient satisfaction regarding waiting time 3. To explore patients' suggestions to improve the quality of waiting time

Methods: A prospective study regarding patients' satisfaction on waiting time was conducted in KKM for 2 weeks in March 2019. All hypertensive patients who came in for follow up were interviewed by using a set of standardized questionnaire.

Results: The response rate for this audit was 79% (n=219). Results demonstrated that 85% (n=183) of the patients were served within the time frame recommended by Ministry of Health Malaysia which is 2 hours. However, only 53% (n=117) of them were satisfied while the other 47% (n=102) were either neutral or dissatisfied. Out of those not satisfied patients, 73% (n=74) of them were served within 2 hours. Majority of the patients suggested increasing the number of doctors and improving the waiting areas particularly the maintenance of chairs and air conditioners to improve the quality of waiting time.

Conclusion: Klinik Kesihatan Mahmoodiah achieved the standard set for this audit which is 85% of the patients need to be served within 2 hours. Nonetheless, almost half of the patients are not satisfied despite being served within the recommended time frame.

PP10

Knowledge and help-seeking behavior regarding abnormal vaginal discharge among pregnant mothers attending Cheras Baru Maternal and Child Health Clinic

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Introduction: Abnormal vaginal discharge is a common complaint among pregnant mothers which may indicate a genitourinary tract infection. However, some do not seek medical consultation for abnormal vaginal discharge for various reasons. This study aimed to determine the knowledge and help-seeking behavior regarding abnormal vaginal discharge among pregnant mothers attending Cheras Baru Maternal and Child Health Clinic with complaints of abnormal vaginal discharge.

Methods: This cross-sectional survey was conducted at an urban clinic from September until November 2016. A total of 303 pregnant mothers were screened for vaginal discharge via systematic sampling. A self-administered questionnaire collected their sociodemographic data, pregnancy characteristics, their knowledge and help-seeking behavior regarding abnormal vaginal discharge. All pregnant mothers found to have abnormal vaginal discharge were included for analysis. Data was analysed using IBM SPSS version 25.0.

Results: About 58.7% (n=178) of respondents had abnormal vaginal discharge during the time of data collection. Increased amount of discharge (46.6%), itchiness in private part (45.5%) and discoloration of the discharge (27.5%) were the commonest symptoms. However, only 44.4% (n=79) sought help for their symptoms despite knowing symptoms of abnormal vaginal discharge. Having offensive smell (adjusted OR=2.059) and greenish discoloration (adjusted OR 1.491) increased the likelihood of patients seeking help.

Conclusion: Many pregnant mothers with abnormal vaginal discharge did not seek help for their symptom, leading to risk of undertreatment. Pregnant mothers should be educated regarding the risks of genitourinary tract infections to their pregnancy.

PP11

Assessment of Augmentin prescribing in public Health Clinics (HC) in Kedah

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Introduction: Augmentin resistance pattern of E. Coli and Klebsiella sp at HC in Kedah were above 20% in year

2017. This audit is to assess appropriateness of Augmentin prescribing in HC.

Methods: A total of 118 prescriptions of Augmentin with the case notes from 1st to 31st October 2018 in all HC in Kedah were audited. We analysed the appropriateness of Augmentin by the indication, dosage, frequency and duration based on National Antibiotic Guidelines 2014. We compared the result between HC with or without resident Family Medicine Specialist (FMS).

Results: The distribution of diagnoses prescribed with Augmentin were mostly for Community Acquired Pneumonia (64%), followed by others diagnoses (17% i.e. Soft Tissue Infection, Tonsillitis, Lymphadenitis). Among all the prescriptions, only eighty-six cases (73%) were indicated for Augmentin. Augmentin prescriptions were equally appropriate for both HC with resident and nonresident FMS (72% and 76% respectively). Majority of the prescriptions (107, 90.7%) were from Medical Officers (MO). However, only 38.3% (41) of MO had FMS approval for Augmentin. Among prescriptions without approval, 47% of cases were not indicated.

Conclusion: Augmentin prescribing was appropriate for both HC with resident and nonresident FMS. The appropriateness can be improved by prescribers through adherence to standard operating procedure on prescribing Augmentin. Further audit on prescribing Augmentin among private practitioners should be done in future to capture the scenario in the whole population.

PP12

Evaluating the improvement of glycaemic control among patient attended Enhanced Diabetic Clinic at Klinik Kesihatan Bukit Kuda

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Introduction: Enhanced Diabetic Clinic (EDC) was developed in KKBK since 2015 aiming to provide comprehensive care to patients with poorly controlled diabetes by multidisciplinary approaches. The objective of this study was to evaluate the outcome of EDC by means of studying the improvement in glycaemic control and comparing with non-EDC care.

Methods: This is a retrospective cohort study. All patients attended EDC (universal sampling) with comparable number of patients from non-EDC from July 2017 until December 2017 were selected. Patient's data obtained from Tele-Primary Care (TPC) system. The data was analyzed using IBM SPSS. Significant level was set at p<0.01.

Results: A total of 216 diabetic patient's data were analyzed. At baseline (0 month), the mean HbA1c level for EDC group was 11.34% while for non-EDC was 9.23%. At 6months, EDC group showed greater reduction with HbA1c level of 10.32% (n=108, sd: 1.84) compared to non-EDC group with hba1c level of 9.06% (n=108, sd=1.00). The difference of reduction between these two groups is statistically significant (p<0.01). At 12 months, the EDC group showed further reduction with mean HbA1c reduced to 10.13% (n=108, sd=1.58). However, the non-EDC group

the hba1c level increased from baseline, 9.36% (n=108, sd=1.20)

Conclusion: The glycaemic control among poorly controlled DM patient in EDC KKBK has significant and consistent improvement where multidisciplinary approaches was advocated as compared to conventional management. Therefore, EDC should be promoted to all primary care setting to help in reducing poor diabetic control burden.

PP13

Views and experiences on tubal ligation as permanent contraception among HIV positive women in Sandakan: a qualitative study

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Introduction: Family planning is a crucial aspect of preventing mother-to-child HIV transmission. Choices of contraception should be offered to women living with HIV with evidence-based information and without discrimination. Although one of the preferred methods of contraception is bilateral tubal ligation (BTL), there are reports of sterilization regret. This qualitative study is conducted to explore the women's views and experiences in choosing BTL as method of family planning and the consequences of this decision.

Methods: This is a qualitative study involving nine HIV positive women in Sandakan who had undergone BTL. In-depth interviews were conducted using a semi-structured topic guide. The interviews were audio-recorded, transcribed verbatim, and checked for accuracy. Data saturation was achieved after the seventh interview and data was analysed using thematic analysis.

Results: The reasons for choosing BTL were perceived benefits of BTL (reduce risk of transmission, effectiveness of BTL as permanent contraception, concern on health in future pregnancy), healthcare providers' influence (felt pressured to choose BTL, doctors play paternalistic role) and convenience of the procedure. Mixed responses were noted with regards to implications of BTL; such as sterilization regret (due to incomplete family or new partner's desire for children), feeling content and grateful, and feeling fear of being exposed of having HIV.

Conclusion: Decision for permanent sterilization are influenced by healthcare providers' recommendation. Improved knowledge and effective counselling by healthcare providers are needed to meet the needs of family planning amongst women living with HIV.

PP14

Prevalence of erectile dysfunction among type II diabetes mellitus at primary health care clinics in Sandakan

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Introduction: Studies worldwide showed that prevalence of erectile dysfunction (ED) in diabetes was 52.5%. In Malaysia, although prevalence of ED in general population has been reported to be 17.2-69.5%, however there is lack of study regarding prevalence of ED among diabetic population. As such, no prevalence study of ED among type II diabetes patient has been conducted in Borneo, specifically, Sandakan. This research is to determine the prevalence of the disease in Sandakan and hopefully will contribute on improving the quality of care among diabetic patients.

Methods: This is a cross-sectional study involving 385 male participants of type II diabetic patients attending five primary health clinics in Sandakan, Sabah using systematic random sampling. The data was collected from 1st June until 31st August 2018 and analysed using SPSS Version 21.

Results: The overall prevalence of erectile dysfunction in Type II diabetes patients is 85.2% with 42.6% suffering from mild, 28.1% mild to moderate, 9.9% moderate and 4.7% severe ED. ED prevalence is high for participants aged more than 65 (93.1%), monthly salary income of less than RM1000 per month (89.7%), primary education level background (94.2%), and participants with eGFR < 60 (93.9%).

Conclusion: ED has high prevalence among type II diabetes patients. Healthcare providers need to be aware of ED as a common diabetes complication and efforts on early detection of ED need to be assessed especially among elderly, low income; low education level and in kidney impairment patients.

PP15

Case report of fetal atrial ectopic rhythm detected using hand-held Doppler

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Introduction: Fetal atrial ectopic is a benign arrhythmia that can present transiently or may persist throughout pregnancy and into the neonatal period. The infrequency with which it is encountered makes this arrhythmia a formidable early-detection challenge. This is a 24-year-old, Gravida 6 Para 5 with underlying maternal obesity came for a routine antenatal check-up at 38 weeks of pregnancy at a primary health care clinic. An incidental finding of an abnormal heart sound was detected using a hand-held Doppler. The rhythm was regularly irregular. The nurse had never heard such a peculiar fetal heart sound which was described as "dududup... dududup...dududup". She was then referred to a consultant obstetrician. In the ward, the cardiotocography (CTG) indicated fetal arrhythmia and a decision for emergency lower segment caesarean section (LSCS) were made in view of fetal arrhythmia. A healthy baby boy with good APGAR was born. Continuous cardiac monitoring showed fetal heart rate ranging from 120-130 bpm with intermittent bradycardia

(heart rate 50-60bpm) which resolved spontaneously. The case was discussed with a pediatric cardiologist and diagnosis of atrial ectopic rhythm was made with plan to observe for any persistent arrhythmia. He was seen at pediatric clinic by a visiting pediatric cardiologist at the age of one month old and repeated ECG was noted to be normal. Child had no symptoms of heart failure, cyanosis or rapid breathing.

Conclusion: This case report on fetal arrhythmia of Atrial Ectopic Rhythm underlines the importance of proper auscultation performed antenatally to identify life-threatening condition intrauterine

PP16

Factors associated with unsafe sexual practices among Malaysian college students.

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Introduction: Risky sexual practices among youths predisposes them to various negative outcomes. The study aimed to identify factors associated with unprotected sexual practices.

Methods: This cross-sectional study involved 988 unmarried students aged 18 to 22 years, randomly selected from 12 colleges in Klang Valley. Data collection was done by completing anonymously a self-administered questionnaire.

Results: Among those who admitted of ever-practiced sex (103/988), 8.7% were either homosexual or bisexual and 28.2% had ≥ 2 partners within previous 12 months. High proportion of them did not practiced safe sex. About two-thirds never or infrequently used condom (72.8%) or other contraception (67.0%). Sex without condom or other contraception was significantly associated with types of sex ($p < 0.001$). Compared to those who had oral sex only, significantly more students who practiced other types of sex practiced unprotected sex. Majority who used alcohol/drug did not frequently had sex after that and those who had sex, they had higher tendency to practice contraception compared to those who never or infrequently used alcohol/drug. However, this was marginally significant ($p = 0.046$). Most of the students practiced unsafe sex regardless of their sexual orientation, number of sexual partners, sex with casual partner or prostitute and number of risky behaviours (alcohol/drug/cigarette used) practiced by them ($p > 0.05$).

Conclusion: The growing prevalence of homosexuality and bisexuality among Malaysian youths is a great concern. Regardless of our effort to curb the unsafe sexual practices, our youths continue to be at risk. Majority of them did not used condom or contraception even when they had sex with risky individuals (unknown person or prostitutes) or practiced risky sexual activities (multiple sexual partners, sex after using alcohol/drug or intoxicated). Thus, appropriate interventions are deemed necessary to promote safe sex and sexual health among youths.

PP17

Interim measure to prevent Zika virus infection in pregnancy

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Background: ZIKV (Zika virus) infection is of grave concern in pregnancy, especially in South America. The infection causes microcephaly and other fetal defects in pregnancy. There is no ZIKV vaccine available at present. ZIKV infection is generally benign, causing mild or no symptoms. . A single infection of ZIKV confers life-long immunity. [1],[2],[3]. Since the first case reported in 1952[4], no report of infection twice in a person. This protects future pregnancies. I suggest two methods of infecting a person with live ZIKV. Artificially induced ZIKV infection in healthy volunteer had not caused any untoward effect. Live ZIKV inoculated to healthy adult and cause the infection.[5]]. This model could be used in healthy premarital girls and cause the infection (after pregnancy test is negative) and avoid pregnancy for eight weeks after infection. Another suggestion: the transfusing of grouped and cross matched blood infected with ZIKV only (screened free of other infectious organisms)[5] to the premarital girl (as mentioned above) including U.P.T. , post-infection pregnancy prophylaxis .[6] The newly infected girl is quarantined till declared free of the infection .Although ZIKV infection may result in Guillain Barres syndrome :this is remote: the chance is 24/100000.Maternal ZIKV infection may affect 20% of more of pregnancies .[7] There is a small risk of GBS to mother but high risk to fetus avoided. The GBS risk in ZIKV infection is much less compared to that caused by 'common flu'!

Conclusion: The above two procedures may be cost intensive but may be cheaper than common procedures like MRI or one month treatment of AIDS !

PP18

Development and validation of Knowledge, Attitude and Avoidance Practices Towards Environmental Tobacco Smoke Questionnaire (KAP-ETSQ) for non-smoking pregnant women in Malaysia

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Introduction: Exposure to environmental tobacco smoke (ETS) has been proven to be associated with various adverse health effects towards pregnancy. Data from Malaysia Global Adult Tobacco Survey showed that 32.8% of non-smoking women were exposed to ETS and many of them were in reproductive-age group. Knowledge, attitude and avoidance practices (KAP) studies on ETS exposure were limited among non-smoking pregnant women in Malaysia. There was also a lack of standardized and validated questionnaire

on ETS exposure in the Malay language. Hence, the aim of this study was to develop and validate the Knowledge, Attitudes and avoidance Practices towards ETS Questionnaire (KAP-ETSQ) among non-smoking pregnant woman in Malaysia.

Methods: The KAP-ETSQ was developed based on literature reviews and expert panel discussion. It was initially developed in English language. The KAP-ETSQ then underwent a forward and backward translation process to produce the KAP-ETSQ Malay version. Content and face validation were done. Construct validity was tested using exploratory factor analysis and reliability analysis was done using internal consistency and test-retest reliability testing. This study was conducted among non-smoking pregnant women aged more than 18 years old attending antenatal clinic at government health clinic in Shah Alam.

Results: KAP-ETSQ consisted of three main domains; knowledge, attitude and avoidance practice towards ETS. The initial questionnaire contained 12 items in knowledge domain. Attitude domain comprises two sub-domains; feeling and belief towards ETS with a total of 9 items. Practice domain contains 11 items within three sub-domains; control of exposure towards ETS, entering a situation where ETS present and reduction of exposure towards ETS. For the knowledge domain, the Kuder-Richardson reliability coefficient was 0.753 and Kappa values ranged between 0.4-0.84, which showed moderate to almost perfect agreement. For attitude domain, 2 items were removed from feeling sub-domain as correlation coefficient were less than 0.3 and 1 item was removed from belief sub-domain as the factor loading was less than 0.4. In the final analysis, all items loaded into a single attitude domain with the minimum factor loading of the item was 0.56. The Cronbach's alpha for the attitude domain was 0.82. For practice domain, the three sub-domains of practices domains were maintained, and all the items loaded into their respective factors without any cross loading. The individual factor loadings were more than 0.5. The Cronbach's alpha for the practice domain was 0.758. The intraclass correlation (ICC) for attitude and practice items lies in between 0.63 to 0.93 which indicate the stability of the items.

Conclusion: The final set of KAP-ETSQ consisted of 12 items for knowledge domain, 6 items for attitude domain and 11 items for practice domain. A KAP-ETSQ questionnaire was shown to be reliable, valid and stable over time to be used among non-smoking pregnant women.

PP19

Determinants of intention to quit smoking among patients undergoing coronary angiogram in a tertiary health care centre

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Introduction: Smoking is known to affect all-cause mortality, especially among patients with Coronary Artery Disease (CAD). The relatively high prevalence (33% to 50%) of active smokers admitted for ACS and STEMI is a cause for concern

as continued smoking after acquiring CAD may lead to more cardiovascular events and invasive surgical intervention (PCI/CABG). Various efforts are currently being conducted by the Government of Malaysia to address this smoking issue, which includes smoking cessation programmes. Smoking cessation before or after a Myocardial Infarction (MI) or CAD event is the most effective preventive measure to reduce total mortality regardless of the type of index cardiac event or years of having CAD. One of the predictors of smoking cessation is intention to quit. However, the prevalence of intention to quit among CAD population is limited. Published literature revealed that intention to quit predicts abstinence rate among smokers with heart disease. Since intention to quit smoking is a critical stage of behavioural changes of smoking cessation, being aware of smokers' intention to quit and the associated factors can provide considerable advantages in this population group. This study aimed to determine the prevalence of intention to quit smoking and its associated factors among patients who are undergoing coronary angiogram.

Methods: This is a cross-sectional study. Participants were recruited via consecutive sampling method. Sampling was performed within a period of six weeks from patients who were admitted electively for coronary angiogram in a tertiary health care centre. Intention to quit was assessed using Stage of Change Questionnaire, while FTND and CSEQ-12 questionnaires were used to assess nicotine dependence level and cessation self-efficacy. Data analysis was conducted using SPSS version 23. The factors influencing quit intention were assessed using bivariate regression and multiple logistic regression model.

Results: A total of 218 male smokers were admitted in this study. Prevalence of intention to quit smoking was 57% [95% CI (50-64)]. Bivariate analysis showed significant association between cigarette consumption, FTND score, previous quit attempt and cessation self-efficacy (CSEQ) with quitting intention. There was no association found between background characteristic and intention to quit in this study. In the final multiple logistic regression model, two factors were found to be significantly associated with intention to quit smoking. These were previous quit attempt (OR=1.9; P=0.045) and cessation self-efficacy (OR=1.4; P=0.001).

Conclusion: This study found that more than half of smokers admitted for coronary angiogram had an intention to quit and it is significantly associated with previous quit attempt and cessation self-efficacy. Understanding the associated factors can guide the clinicians to facilitate smoking cessation among patients based on individual approach. A targeted approach of smoking cessation intervention based on smokers' cessation self-efficacy level and quitting experience is recommended.

PP20

Design and development of the EMPOWER-SUSTAIN prototype web-based self-management intervention mobile app for patients with Metabolic Syndrome in primary care

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Introduction: The escalating prevalence of Metabolic Syndrome (MetS) and the associated cardiovascular (CV) risk factors in the Malaysian population over the past decades has resulted in an increase of CV disease morbidity and mortality. Given the proliferation of mobile phone users with accessibility to the internet, web-enabled mobile-based self-management intervention system is a potential solution. Therefore, this study aimed to design and develop the EMPOWER-SUSTAIN prototype web-based self-management intervention mobile app for patients with MetS in primary care.

Methods: Iterative Model was chosen as the software development model for this study. Content from the existing EMPOWER-PAR Global CV Risks Self-Management Booklet© was evaluated for its suitability to be included in the prototype. In addition to the existing content, other self-management related contents such as weight, diet and physical activity were included in the prototype. A storyboard was designed to create the flow of prototype usage by Primary Care Physicians and patients during follow-up clinic and at home. In the pre-alpha stage, wireframe was designed to describe and visualize the user interface in static draft layouts based on the content and structure of information. Based on the wireframe, a mock prototype was designed to demonstrate the graphic representations of the content and function. Using the iterative model of the software development life cycle (SDLC), a working prototype was developed based on the mock prototype.

Results: A high-fidelity mock-up static graphic diagrams demonstrating the content and function divided into eight sections was designed. The sections included My Profile, My Cardiovascular Risks, My Treatment Targets, My Check-Up, My Weight Management, My Smoking Habit, My Self-Management and My Medication. Based on the graphic diagrams, a working prototype of the EMPOWER-SUSTAIN web-based self-management intervention mobile app was developed using the iterative model of the SDLC.

Conclusion: The EMPOWER-SUSTAIN prototype web-based self-management intervention was developed using a robust software development method. It will undergo alpha (utility) testing by medical experts and beta (usability) testing by patients with MetS in primary care.

PP21

Reason for loss to follow up among Type 2 Diabetes Mellitus

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Introduction: Management of Type 2 Diabetes Mellitus requires life long follow up for a better quality of life to the patients. Improper follow up is associated with poorer diabetes control. This is an audit findings among Type 2 DM patients who is loss to follow up in Bandar Mas Health Clinic.

Methods: Type 2 Diabetes Mellitus medical records of patients who were loss to follow up identified in December 2018. A defaulter tracing activity was made either by phone call or home visit to enquire reasons for the loss to follow up. Reasons for the loss to follow up were written in the medical records. An audit is made and data were recorded and analysed.

Results: A total of 213 patients identified loss to follow up in December 2018. Up to 55% of these patients had been diagnosed with Type 2 DM at least 5 years. There was no difference between gender; 107 males and 106 females were identified. The median age was 64 years old and had a median HbA1c of 8.2%. The reasons for loss to follow up includes patients who has passed away (22.5%), has moved out to another living area (21.1%), follow up at GP's or other facilities (15.5%), follow up in different units in Bandar Mas Health Clinic (10.3%), unknown reasons (4.7%), unsatisfied with staff behaviour (2.3%), refused treatment (2.3 %), others (0.9%) and no specific reasons but quickly requested new appointment date (20.2%).

Conclusion: Up to 55% Type 2 DM patients were loss to follow up at Bandar Mas Health Clinic in 2018. The main reason for the loss to follow up was either deceased, moved out or no specific reasons. Those who are loss to follow up has uncontrolled DM with median HbA1c of 8.2%.

PP22

Short-term effects of providing feedback on exhaled carbon monoxide levels on smokers' intention to quit: a pilot interventional study at a primary care clinic

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Introduction: Providing feedback on exhaled carbon monoxide (CO) levels may motivate smokers to quit smoking. This study aimed to examine the short-term effects of providing feedback regarding exhaled CO levels on smokers' intention to quit and their cigarette consumption.

Methods: This non-randomized controlled trial was done at a public primary care clinic in Penang, Malaysia. Adult smokers were allocated into intervention and control groups based on separate recruitment periods. The control group (n=132) received conventional counselling using 5As approach

and pamphlets. The intervention group (n=132) received feedback on their exhaled CO levels on top of conventional counselling. Their intention to quit and current cigarette consumption were assessed at baseline and at one month post-counselling.

Results: At baseline, the control and intervention groups differed significantly in gender (p=0.02), ethnicity (p=0.004), marital status (p=0.002), age of smoking initiation (p<0.001), nicotine dependence (p=0.001) and intention to quit (p<0.001). Between-group-analysis showed no difference in their intention to quit (p=0.389) and cigarette consumption (p=0.903) at one month post-counselling. However, within-group-analysis showed increased intention to quit (p<0.001) and reduction in cigarette consumption (p<0.001). None of the participants quit smoking at follow-up.

Conclusion: Smoking cessation counselling incorporating feedback regarding exhaled CO levels was not superior to conventional smoking cessation counselling. Both methods of counselling improved smokers' intention to quit and reduced cigarette consumption. However, this enhanced motivation did not translate to actual smoking cessation.

PP23

Smoking cessation counselling. Are we ready?

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Background: WHO recommends smoking cessation counselling in the primary care setting for the treatment of tobacco dependence. However, it is still not sufficiently implemented. Therefore, in order to understand and address the discrepancy between evidence and practice, an overview of smoking cessation counselling among primary care doctors are needed.

Aim: To assess knowledge, attitude, practice, perceived barriers and readiness in relation to giving smoking cessation counselling among government primary care doctors (PCD) in Seremban district.

Methodology: A cross-sectional study was conducted among 190 primary care doctors (PCD) from eleven government primary healthcare clinics in Seremban. A self-administered questionnaire constructed based on various studies from foreign countries were utilized to calculate knowledge, attitude, practice and perceived barriers of smoking cessation counselling among the PCD. Data was analyzed using SPSS version 22.

Results: The study showed that PCD had good scores in knowledge (mean, x=83.8%), attitude (x=89.5%), practice (x=83.1%) and perceived barriers (x=64%), but scored poorly in the readiness section (x=71.6%). Regression analyses showed that attitude, practice and perceived barriers were statistically significant in influencing readiness (p<0.01) of PCD to offer smoking cessation counselling. Perceived barriers had the highest influencing factor ($\beta = -.41$, P < .01) followed by practice ($\beta = .24$, P < .01) and attitude ($\beta = .23$, P < .01).

Conclusion: This study showed that PCD in the Seremban District have good knowledge, attitude, practice and perceived barriers regarding smoking cessation. However, the PCD are not ready to offer smoking cessation counselling as evidenced by poor performance of readiness score in more than half (68%) of them. Thus, there is a need to provide training to PCD to improve their readiness and confidence in approaching smokers to quit smoking.

PP24

Health seeking behavior and health outcomes among unmarried pregnant mothers in Seberang Perai Tengah government health clinics

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Introduction: In Malaysia, the number of unmarried pregnant women is increasing, and this may have negative maternal and fetal health outcomes.

Methods: A cross sectional retrospective study was conducted in Seberang Perai Tengah District involving 110 unmarried pregnant mothers who delivered between 1st January 2017 and 28th February 2018.

Results: In this study the prevalence of unmarried pregnant mothers was 2.1%. Majority were Malays (60%). The mean age was 24.2 years, most were primigravidas (63.6%), lived with parents (51.8%) and were unsure of last menstrual period date (51.8%). About 12.7% were smokers and 5.5% were drug abusers. We found that 75% were late bookers (>12 weeks) and 3.6% were not booked at all. Non-teenage mothers, Malay ethnicity and non-working mothers were significantly associated with late booking (p value < 0.05). Pregnancy related medical illnesses were found in half of our sample (52.7%) from which anemia in pregnancy ranked the top (38.1%). Most of our unmarried mothers (98.2%) delivered in hospital and 17.3% ended up needing an emergency caesarian section. We found that 25.5% mothers had intrapartum complications, 23.7% babies were born with low birth weight and 5 babies demised.

Conclusion: In conclusion, our study has found that majority of unmarried pregnant women had poor health seeking behavior. Non-teenage mothers, Malay ethnicity and non-working mothers were associated with poor health seeking behavior. Anemia was commonest in our study. Hence health promotion about pregnancy and its related medical illness should be given to all women within reproductive age regardless of marital status.

PP25

Family Medicine Specialist Penang community project 2019. 'Kesihatan Si Manja: Apakah Peranan Anda?'

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Background: Having a child is a blessing as well as a huge commitment. One of the most fundamental provisions is namely ensuring good health for the children. Hence, 'Kesihatan Si Manja: Apakah Peranan Anda?' was a chosen theme for Penang Family Medicine Specialists Community Project for 2019. Targeting parents and preschool teachers and empowering them with knowledge in recognizing common danger signs and basic pediatric cardiopulmonary resuscitation (CPR).

Project: A first ever project in Malaysia that was aimed to reduce the preventable 'under 5 death', although over the years the mortality rate is declining. The project encompassed three components namely; presentations on community modules of 'Approach to Unwell Child Under 5' - an adaptation of the WHO IMCI-Integrated Management of Childhood Illness (Community Modules) and hands-on basic CPR for preschool teachers and a few parents. The third component was an introduction of 'Teddy Bear Clinic' aiming to alleviate anxiety among children attending doctors' consultations. Opportunistic surveys were conducted entailing the perception of teachers and parents towards the children's health and another survey looking primarily on parental understanding on their child's growth.

Result: There were staggering responses particularly in the health knowledge transfer whereby the media played an important role in transferring knowledge on child health and CPR; 70% and 58%, respectively. Media websites were opted in lieu of formal or professional training presumably because of easy accessibility, cheap and trendy. Majority of the participants gave positive feedback and hoped that this project will be a routine annual event. It was recommended to be expanded to an immense number of parents, preschool teachers as well as the primary school teachers. We, on the contrary hope that this project will be assimilated into the mainstream as a compulsory training for the preschool teachers.

Conclusion: A child is a legacy. Nobody said having kids would be a piece of cake. But nothing worth having in this life comes easy. They depend on us for survival and health. It is everyone's responsibility to ensure a safer environment for Si Manja.

PP26

Clinical audit on management of secondary prevention of cardiovascular disease (CVD) in a primary care clinic

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Introduction: Secondary prevention is imperative for reduction of Cardiovascular Disease (CVD) mortality and morbidity. The objective of this audit is to assess the management of secondary prevention of CVD in Primary Care Clinic in UiTM.

Methods: A retrospective audit of electronic medical records was conducted for 773 patients with CVD who attended this clinic between 1st January to 31st December 2018, who fulfilled the inclusion and exclusion criteria. The audit criteria were grouped into structure (five), process (eighteen), and outcomes (six). Criteria for process were framed into non-pharmacotherapy management, pharmacotherapy management, and monitoring of individual CVD risk factors. Outcome criteria were grouped into treatment target for individual risk factors and recurrence of major CVD events.

Results: For structure, the clinic has a self-management booklet to empower patients. For process, non-pharmacotherapy management showed suboptimal results ranging from advice on weight management (16%) to assessment of smoking habits (24%). 97% patients were prescribed with antiplatelets and 99% with statins. Among coronary artery disease (CAD) patients, 88% received ACE-I/ARB, and 82% received beta-blockers. For monitoring of individual risk factors, all criteria achieved target, ranging between 23% (recording of waist circumference) to 100% (documentation of blood pressure at each visit). For outcome, targets of individual risk factors showed 64% of the smokers achieved smoking cessation, 34% has LDL-C level of <1.8mmol/L and 58% of the diabetic patients has HbA1C level between 6.6-7.4%. Only 38% achieved target BP of <130/80mmHg, 98% and 99% of CAD and stroke patients respectively, did not have recurrence/readmission for major CVD events.

Conclusion: There is a good evidence-based pharmacotherapy management for secondary prevention of CVD. However, this audit revealed suboptimal lifestyle prescription.

PP27

The prevalence and associated factors of diabetic maculopathy in the primary care setting: a retrospective cross-sectional study in Klinik Kesihatan Puchong

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Introduction: Diabetic maculopathy is one of the leading causes of visual disturbance in chronic hyperglycemic patients. However, there is limited data on this important complication of diabetes mellitus in the primary care setting in the Klang Valley. Therefore, this study aims to determine the prevalence and associated factors of maculopathy among Type 2 Diabetes Mellitus patient in Klinik Kesihatan Puchong.

Methods: A retrospective cross-sectional study was conducted in Klinik Kesihatan Puchong using the patient's electronic medical record. A total of 2131 Type 2 Diabetes Mellitus patients with documented annual fundal screening from January 2018 till December 2018 were recruited into this study. Their socio-demographic data and HbA1c level were captured. Statistical analysis was done using SPSS 23.0. A p value of <0.05 was considered as statistically significant.

Results: The prevalence of diabetic maculopathy was 5.9 % (126/2131). Majority of the respondents with diabetic maculopathy were female (82/126, 65.1%) and of Indian ethnicity (59/126, 46.8%). The mean HbA1c was 9.4 ± 2.4 , while the mean age was 56.1 ± 10.5 . On univariate analysis, being female (OR=1.39, 95CI%=0.96-2.03), of Indian ethnicity (OR=1.80, 95CI%=1.21-2.69) and having a higher HbA1c (OR=1.25, 95CI%=1.16-1.35) were significantly associated with the occurrence of diabetic maculopathy. On multivariate analysis, it was found that having a higher HbA1c (OR=1.23, 95CI%=1.14-1.34) and Indian ethnic group (OR=1.81, 95% CI=1.21-2.69) were predictors of having diabetic maculopathy.

Conclusion: The prevalence of diabetic maculopathy is high. Being of Indian ethnicity and having a higher HbA1c level are predictors of having diabetic maculopathy. These findings suggest that this group should be targeted for earlier and/or more frequent fundus examinations.

PP28

Sexual dysfunction among women at 4 to 6 months postpartum: a study in a primary care setting

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Introduction: Sexual dysfunction in women is highly prevalent and has reportedly been shown to have an adverse impact on marriage stability and breastfeeding. Although it has high prevalence in Western countries, the magnitude of this problem in our local setting is still unknown. The aim of this study was to determine the prevalence of women with sexual dysfunction after childbirth and its possible risk factors in a primary care practice.

Methods: This was a cross-sectional study. Participants were given a set of questionnaires that consisted of three parts; i) sociodemographic and maternal characteristics ii) Malay version of Female Sexual Function Index and iii) Malay DASS-21 questionnaire.

Results: Responses from 249 women were analyzed. More than half (57.0%, n=142) reported that they had experienced sexual dysfunction during the period of four to six months after childbirth. The most prevalent types of sexual dysfunction reported by the affected women were sexual satisfaction disorder (98.6%). This was followed by arousal disorder (58.5%) and lubrication disorder (28.9%). The following were significant factors for sexual dysfunction: household income less than RM2000 (Adj OR = 0.31, 95% CI 0.14, 0.70), Malay ethnic group (Adj OR = 1.93, CI 1.02, 3.66) and breastfeeding (Adj OR = 2.24, CI 1.03, 4.85).

Conclusion: The prevalence of sexual dysfunction following the postpartum period was high. Therefore, there is a need to create awareness on sexual health among women and the primary health care providers should include sexual assessment during the postnatal care.

PP29

The prevalence of depression, anxiety and stress among medical graduates in a House Officer (HO) preparatory course

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Introduction: Doctors' wellbeing are sometimes neglected. Being a house officer (HO) is often related with poor psychological wellbeing. Studies on this issue have been done locally and internationally as the impact of stressed doctors can be detrimental. However, not many studies look into those who have recently graduated. Hence, this study aimed to determine the levels of depression, anxiety and stress among medical graduates and its associated factors in those attending a HO preparatory course

Methods: This is part of a bigger study that evaluated the effectiveness of a HO preparatory course, which is a course for medical graduates to prepare for HO training. An adapted questionnaire of the IMU student competency survey and the Depression, Anxiety and Depression Scale (DASS-21) were used. All participants who joined training during the study period were recruited. A total of 219 completed the questionnaire

Results: Most of the participants were female (78.1%), single (88.6 %) and graduated overseas (72.1%). We found 38.4%, 53% and 26% of participants to have mild to extremely severe probable depression, anxiety and stress, respectively. The most daunting aspect of being a HO were the competency required in knowledge and judgement (33.3%) and the competency required in practical skills (20.1%). We found no significant association between socio-demographic factors and DASS.

Conclusion: We report a high level of anxiety among medical graduates even before commencing HO-ship. The most daunting aspect of being a HO was the competency in knowledge, judgement and practical skills. More research should be done to look into factors associated with anxiety among new HOs.

PP30

Translation and validation of the Malay version of Risk Perception Survey on Developing Diabetes among gestational diabetes mellitus patients

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Introduction: A Malay version of the Risk Perception Survey on Developing Diabetes (RPS-DD) questionnaire assesses perceptions of gestational diabetes mellitus (GDM) patients of their risk to develop type 2 diabetes mellitus (T2DM) after delivery. An understanding of risk perception may translate into intention to modify their health behaviors

such as postpartum screening for diabetes or healthy lifestyle choices. It has 20 items framed within five domains. This study aimed to adapt, translate and validate the RPS-DD from English into the Malay language.

Methods: This was a cross-sectional study among 200 GDM patients attending three government health clinics in Johor Bahru from February to March 2019. Permission to use the original version of the RPS-DD questionnaire was obtained. The questionnaire underwent adaptation, translation, and face validation to produce the Malay version. Confirmatory factor analyses (CFA) were performed using R software version 3.5.3.

Results: There were five domains namely 'Personal Control', 'Optimistic Bias', 'Knowledge about diabetes risk factors', 'Benefits and barriers', and 'Risk Perception'. CFA confirmed the structure of the model with adequate goodness-of-fit values [CFI = 0.994, TLI = 0.990, SRMR = 0.038, RMSEA = 0.021 (90% CI: 0.000, 0.064)].

Conclusion: The Malay version RPS-DD questionnaire is a valid and reliable tool which can be used to examine the perception of GDM patients towards the risk of getting T2DM.

PP31

Diabetes-specific quality of life and its correlates among 1184 adults with type 2 diabetes in 12 public health clinics and Kedah, Malaysia (EDIPEQS-DQOL): a cross-sectional study

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Introduction: People with type 2 diabetes (T2D) may have financial concerns, challenging relationship, affecting memory activities, diet adherence and energy levels. This study examined these diabetes-specific quality of life domains and its correlates.

Methods: Consecutive sampling between March and June 2018 recruited eligible people with T2D. Asian Diabetes Quality of Life (ADQOL) questionnaires assessed diabetes-specific QOL, higher scores indicate better QOL. ADQOL is divided into three categories based on the mean score and SD: lower (-4SD), middle (-2SD) and upper third (+2SD). Multiple imputations, Spearman's correlation and Chi-square test were completed with SPSS 25.0.

Results: Of the 1184 participants (94.1% response rate), Malay 76.4%, married 88.9% and no employment 61.8%. The mean (SD) age was 55 (10) years. The mean (SD) ADQOL was 83.4 (12.3); 3.9% (n= 46), 40.6% (n= 481) and 55.5% (n= 658) were in the lower, middle and upper

categories of ADQOL, respectively. Energy domain had both the highest proportions in the lower (7.1%) and upper (72.7%) thirds compared to the other domains that scored about 5% and 50%. ADQOL correlates with T2D perceptions ($r = -0.40$), self-efficacy and self-care activities ($r = 0.30$ & 0.21), perception of healthcare support ($r = 0.17$) and HbA1c ($r = -0.15$). Negative associated factors include Indian, life events, family history of psychiatry and low health literacy.

Conclusion: Diabetes-specific quality of life among adult T2D at primary care were mostly good in all the domains. Health literacy and energy levels at work and social activity might require more careful attention during clinical care.

PP32

A case series of benign acute childhood myositis

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Introduction: Benign acute childhood myositis (BACM) is a rare condition that occurs during the recovery phase of an illness which is easily mistaken as a more sinister disease due to the sudden presentation. It is a mild, sudden onset of lower extremity pain usually preceded by a viral illness, particularly Influenza virus infection with an isolated laboratory finding of elevated serum Creatine Kinase (CK).

Methods: The authors reported 3 cases of BACM encountered at our clinic and discuss the epidemiology, clinical findings, diagnosis and treatment of the condition. 3 children of age ranging 6-10 years old presented with intense calf pain and gait abnormality following febrile upper viral respiratory infection. Creatine kinase level rose up to a range of 1212 IU/L to 2535 IU/L.

Results: Despite having the same diagnosis, the severity of the lower limb pain can be differed at the time of presentation to the clinic which warrants an admission to the ward and being investigated further to look for complications of further muscle damage. All 3 cases were managed with adequate hydration and symptomatic treatment.

Conclusion: This case highlights the importance of having a high index of suspicion for BACM by understanding the natural progression of disease as this benign entity can be managed by avoiding invasive studies at primary care setting.

PP33

Prevalence of dementia in elderly population in Sarawak using the Early Dementia Questionnaire (EDQ)

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Introduction: The number of elderlies in Malaysia is increasing similar with the rise in ageing population worldwide. This leads to increase in the prevalence of dementia. This study was done to screen the elderly population in health clinics in Sarawak for dementia using the validated Early Dementia Questionnaire (EDQ). EDQ is a screening tool based on symptoms of dementia.

Methods: A cross sectional study was done on the elderly patients aged 60 years and above attending health clinics in Kuching, Sibul and Miri, Sarawak using systematic sampling. Patients with depression were excluded from the study using the Geriatric Depression Scale (GDS). Eligible patients were then assessed for dementia using the validated Early Dementia Questionnaire (EDQ) with the cut-off score of 10. Their informants were also interviewed to complete the questionnaire.

Results: The prevalence of dementia among 455 elderly patients was 42.4% (CI 1.180, 2.534). After controlling for confounding factors, dementia was independently associated with advanced age (adjusted OR: 7.3; 95% CI: 1.561, 34.202; P=0.012) and no formal education (adjusted OR: 3.3; 95% CI: 0.198, 0.453; P<0.001). Concentration (75.6%) was the most common symptom presented. Other symptoms were memory symptoms (48.2%), physical and emotional symptoms (57.2%) and symptoms on sleep and environment (50.7%).

Conclusion: The prevalence of dementia in Sarawak based on EDQ was 42.2%. Apart from memory problems which are often associated with dementia, patients with concentration problems should also alert the health professionals on the possibility of dementia.

PP34

Association between anemia at term with patient's factors and health care provider's practice in Tumpat government health clinics throughout 2018

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Introduction: Untreated anemia has a significant negative impact on the productivity of the community and leads to complications which results in both fetal or maternal morbidity and mortality. Some of the patients have higher risks of developing anemia in pregnancy. However, by having a meticulous management by the health care providers, the outcome of anemia can be improved at later stage of pregnancy. The objectives of our study were to determine the patient and the health care provider factors associated with anemia at term in Tumpat District. The general objective is to study on anemia at term and its risk factors in Tumpat District.

Methods: A cross sectional study was conducted on anemic pregnant mothers who were registered from January to December 2018 at Tumpat government health clinics. Convenient random sampling was done and 125 cases with anemia at second trimester who met the inclusion and exclusion criteria were selected in our study. Data were analyzed with multiple logistic regression in SPSS version 24. **Results:** Mothers who were not referred to nutritionists/dieticians and who were not given education on anemia were the factors associated with anemia at term. Mothers who were not referred to nutritionists/dieticians had 2.4x higher odds to have anemia at term compared to mothers who were referred to nutritionists/dieticians (adjusted odd ratio (AOR) = 2.46;

CI: 1.07, 5.67; p-value= 0.034). Besides that, mothers who were not given education on anemia during pregnancy had 4.4x higher odds to have anemia at term compared to mothers who were given education on anemia (AOR = 4.46; CI: 1.81,10.94; P value = 0.001)

Conclusion: Nutritionists/dieticians and health care staff play an important role in the management of anemia in pregnancy. Pregnant mothers who are anemic should be counselled on anemia to improve their anemia status at term.

PP35

Correlation between proteinuria with erectile dysfunction among diabetics in Temerloh Health Clinic

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Introduction: To evaluate the association between ED, determined by the IIEF-5 scores and urine protein level in diabetic men attending Temerloh Health Clinic, Pahang, Malaysia. Hence, to identify if proteinuria was related with ED or not.

Methods: All married diabetic patients were investigated face to face after they consented for answering the IIEF-5 questionnaire. Urine protein was taken by using standard method and classified in to 0, 1+, 2+ and 3+. Patients with no sexual partner, refused to answer the questionnaire, cancer, stroke, heart disease and language barrier were excluded. Data obtained from IIEF-5 score and urine protein level were analyzed by using Pearson correlation. P<0.05 considered as statistically significant. ED was categorized accordingly to IIEF-5 scores: no ED (22-25), mild (17-21), moderate (12-16), severe (8-11) and very severe (1-7).

Results: A total of 450 patients were investigated with 385 patients included (85.6% respondent rate) and 65 patients excluded in this study; with age ranging from 29 to 85 years old. 7% had no ED, 28% mild ED, 34% moderate ED, 16% severe ED and 15% had very severe ED. There was significant negative correlation between urine protein level and IIEF-5 scores (r = -0.109, p <0.05). This result implicated that high level of urine protein was associated significantly with erectile dysfunction.

Conclusion: Proteinuria is associated with erectile dysfunction among diabetics in Temerloh Health Clinic.

PP36

Development and validation of a self-administered questionnaire assessing Doctor's Attitude and Practice of Pneumococcal Vaccination for Children under 2 (DAP-PneuVaC2)

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Introduction: Doctors' attitude towards vaccine influences

promotion practices. This study aimed to develop and validate a self-administered questionnaire that assesses doctors' attitude towards Pneumococcal vaccination (PCV) for children under 2 (DAP-PneuVaC2).

Methods: DAP-PneuVaC2 was developed based on literature review, health belief model and discussions with experts. It has three domains: i) attitude (43items), ii) perception on organizational services (3items), and iii) promotion practices (2items). The DAP-PneuVaC2 had undergone content validation, face validation, construct validity and internal consistency testing. Exploratory factor analysis (EFA) was performed based on data from 92 primary care doctors. Predictive validity was done by examining the associations of attitude with practices and opinion on PCV inclusion into the national immunization program (NIP).

Results: Content validation resulted in 15 items for DAP-PneuVaC2-attitude domain with good comprehensibility on face validation. Item-15 had poor total-item correlation ($r=0.08$), lowest communality value after extraction (0.16) and poor factor loadings of less than 0.4 in all factors. Repeated EFA post removal of Item-15 resulted in two constructs: 'Favoring immunization' (9items) and 'Disfavoring immunization' (5items), explaining 52.5% of the total variance. Cronbach's alpha of DAP-PneuVaC2-attitude domain was 0.88. Attitude scores were significantly associated with respondents' PCV promotion practices and opinion on its inclusion in the NIP.

Conclusion: DAP-PneuVaC2 is a reliable, valid tool to assess doctor's attitude towards PCV for children aged <2, promotion practices and perception on organizational services. Significant association of DAC-PneuVac2-attitude scores with PCV promotion practices and opinion on its inclusion in the NIP supports its use in detecting vaccine hesitancy.

PP37

Town Hall Meeting: knowledge on Hand Foot Mouth Disease (HFMD) among educators in Kuala Lumpur

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Introduction: HFMD that was once considered a disease of cattle has been emerging as a common human childhood disease in the passed few years in Kuala Lumpur. An intervention on the prevention of HFMD among educators was conducted through a Town Hall Meeting (THM), one of the strategic plans initiated by the Ministry of Health. This study aims to access the effectiveness of THM on educators' knowledge of HFMD.

Methods: A cross-sectional study was conducted in Kuala Lumpur. Questionnaires were disseminated to 331 educators from Educational Department of Kuala Lumpur and Majlis Agama Islam Wilayah Persekutuan Kuala Lumpur (MAIWP). Systematic random sampling method was used in this study and mean age of respondents was 43 years old.

Results: Findings revealed 93.7% respondents know that HFMD disease was caused by viral infections and 86.4% of them believe the transmission of HFMD disease occurs during sneezing and coughing. Most of respondents know

that they need to throw disposable diapers in a closed garbage bin and are aware that it can be transmitted through contact with person's saliva, blister fluid and stool. Meanwhile, 90.6% of the respondents know the seven steps of hand washing, 98.8% of them aware of the importance of health screening, and 99.1% of them know the initial symptoms. In fact, most of them know that infected children are not allowed to attend kindergarten and school.

Conclusion: In a nutshell, an early exposure to HFMD disease should be emphasized to all especially educators to protect and prevent children from HFMD by teaching them good hygiene practices.

PP38

MCDA twin pregnancy with TRAP syndrome: a rare cause of placental mass

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Background: Twin reversed arterial perfusion (TRAP) sequence is mostly seen in monochorionic diamniotic (MCDA) twin pregnancy. The incidence is estimated to be 2.6% in monochorionic twin pregnancy and 1/9500-11000 pregnancies. In TRAP sequence, there is a non-viable, acardiac fetus that has multiple anomalies and a normal pump fetus that feeds this fetus. Mortality is 100% in acardiac twin, while 50% in normal twin, usually due to heart failure and sometimes prematurity due to polyhydramnios.

Case report: We present a case of a 28-year-old female, gravida 2 para 1 who was seen in our health clinic for her antenatal check-ups. She was initially detected to have a smaller fetus at 32 weeks (parameters between 28-29 weeks) and serial scans done to monitor fetus growth. At 36 weeks, we detected a placental mass at anterior border of her placenta. At this stage we diagnosed her as a small gestational age with placental mass and immediately referred to obstetrician at tertiary centre for further investigations. Ultrasound by maternal fetal specialist revealed an undiagnosed MCDA twin pregnancy with an acardiac twin (a TRAP sequence). She was induced at 38 weeks and delivered a baby girl weighing 2.2 kg via vaginal delivery.

Conclusion: All placental masses should be investigated further to determine its underlying aetiologies and predict risks associated with it.

PP39

Ehlers-Danlos Syndrome: an underdiagnosed condition

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Background: Failure to thrive is a clinical presentation that is usually discovered during routine child visit at primary care setting. The causes of failure to thrive are multifactorial which becomes a challenge in the diagnostic process. The pitfall arises when there are overlapping causes in which nutritional and psychosocial issues mask the suspicion of medical cause.

A well-looking child with failure to thrive is considered as normal variants of growth or having nutritional deficiency without proper assessment.

Case report: We highlighted a case report of a 4 years 9 months girl with red flag signs of failure to thrive was recently diagnosed to have Ehlers-Danlos Syndrome-hypermobility type based on manifestation of classical signs with a Beighton score of 8. She was unable to achieve catch up in growth despite adequate nutritional intake provided under the Rehabilitation of Malnourished Children Program (PPKZM). She was intrauterine small for gestational age and had unresolved failure to thrive after birth, with all anthropometric criteria below expected for age and gender. Otherwise, she was asymptomatic and developmentally-age-appropriate. These provided a clue to evaluate further for a pathological condition which leads to discovery of this undiagnosed syndrome.

Conclusion: A systematic approach with detailed history and thorough clinical examinations remain the mainstay tool to explore the sole cause which solves majority of the cases. Even though there is no cure for Ehlers-Danlos Syndrome, a correct diagnosis helps us to educate the family to prevent and monitor potential complications and helps in genetic counselling for the family.

PP40

“Tabbaru’ Program”: a unique program to help the poor and unfortunate patients from a private specialist clinic of Klinik Pakar Kesihatan Universiti Sains Islam Malaysia

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Introduction: Tabbaru’ is a contract where a participant agrees to contribute and to provide assistance to others. There were a few activities being conducted by a private specialist clinic of Klinik Pakar Kesihatan Universiti Sains Islam Malaysia in Nilai. We aim at reporting these activities in 2018 of which could hopefully spark motivation for others to follow in upholding better health care to the poor and unfortunate patients.

Methods: The budget sources for the “Tabbaru’ Program” were from zakat of any sectors, donation from public, and specialist doctors performing their services in the clinic. The money was used to help the poor and unfortunate patients to obtain better health care via few activities. Those eligible included were asnaf, disabled persons, elderly, and those having financial difficulties.

Results: There were 3 outreach medical health and dental screening done in 2018. The first was to an asnaf children’s center called “Baitulsakinah” in Sepang. The second was to an orphanage center namely “DarulAminan” in Ampangan and the third was to the elderly home “Nur Hasanah” in Beranang. In addition, the money was also used to cover the medical cost for program “Khatan Perdana” for asnaf children, to pay bills for eligible patients as well as sponsoring corrected glasses.

Conclusion: The existence of “Tabbaru’ Program” since its establishment in the clinic had evidently provided benefit for the poor and unfortunate patients to obtain better health care via various activities in 2018. Few programs are in the pipeline this year.

PP41

Treatment expectation among clients attending methadone clinic in Gombak district

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Introduction: Opioid dependence is a substantial contributor to the global disease burden with consequent health, economic and social problems. Globally, methadone maintenance treatment (MMT) is one of the most effective treatment methods in opioid dependence. For primary care providers, providing comprehensive care based on client-centered approach and understanding clients’ expectations and needs are seen as important contributors to patients’ engagement in treatment. This study aims to determine the patient’s expectation towards MMT in Gombak district which may have positive impact on the overall quality of treatment.

Methods: Self-developed questionnaires consisting of demographic profiles and client’s expectation of MMT were distributed to 180 clients attending methadone clinics in Gombak district with their consent. Respondents were allowed to choose more than one response and give open-ended response for treatment expectations.

Results: Majority of the respondents were married Malay male with mean age of 45 years old. The mean duration of their MMT was 5 years. Only 30 (16.7%) respondents were unemployed. More than half of them (105, 58.3%) stayed with their family. Their main expectation from MMT was to stop drug usage completely (144 responses, 80% of total respondents), followed by expectation to improve quality of life (126 responses, 70% of total respondents). Other expectations included to prevent infection from intravenous drug usage, to get a new job, to get treatment for medical problem, to obtain take-away doses, to gain acceptance from family, to integrate into community, to improve interpersonal skills and to be treated with respect by medical personnel. Client also expected healthcare professional to be more tolerant to minor mistakes committed by client.

Conclusion: Majority of the clients attending methadone clinic in Gombak district expected MMT to offer them abstinence from illicit drug, which is in line with the treatment goal of MMT. While MMT generally met the clinical expectations of clients, improving socioeconomic aspect of clients and enhancing flexibility of the program structure can add further value to MMT.

PP42

Prediabetes screening and management in primary care: where do we stand?

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Introduction: The prevalence of diabetes is increasing globally. Therefore, it is important to detect pre-diabetes early and implement the appropriate interventions in order to halt the progression to diabetes. A cross-sectional study showed the prevalence of prediabetes among adults were 22.1% and the percentage rose to 24.4% in those above 60 years old. Based on World Health Organization (WHO) definition, pre-diabetes includes impaired fasting glucose (IFG), impaired glucose tolerance (IGT) or both. Impaired fasting glucose (IFG) is defined as fasting plasma glucose (FPG) of 6.1-6.9 mmol/L and impaired glucose tolerance (IGT) defined as plasma glucose of 7.8-11.0 mmol/L 2 hours after ingestion of 75g of oral glucose load. Malaysia's CPG recommends oral glucose tolerance test with venous FPG level of 6.2 to 6.9 mmol/L or random plasma glucose of 7.8 to 11 mmol/L. This study had shown the high prevalence of CVD risk factors among pre-diabetes patient for example dyslipidaemia (65.7%) hypertension (52%), abdominal obesity (76.5%), BMI > 23kg/m² (82.4%) and smokers (10.8%). Behavioural and lifestyle changes such as diet and moderate intensity physical activity are the main recommendations for prediabetes patients. Pharmacological treatment with metformin has been endorsed for the prevention of diabetes. Annual monitoring and assessment for glucose tolerance status are recommended. The general objective of the research is to study the prevalence, associated factors and management of pre diabetes patient attending Presint 18 Putrajaya Health Clinic

Methods: Retrospective cohort study among patient under follow up in Presint 18 Putrajaya Health Clinic was performed using universal sampling of medical records from March 2015 to December 2018 that captured OGTT results. OGTT tests' results were extracted from Teleprimary Care (TPC) medical records. This study will exclude OGTT result for antenatal cases, loss to follow up or OGTT requested by other health care facilities. OGTT result will be categorised into normal, pre-diabetes and diabetes. Data will be recorded according to patients' demographic details which includes age, gender, race, co-morbidity and BMI. The management of pre-diabetic patients including diagnosis, dietary advice, exercise, follow-up intervals and pharmacological interventions will be audited. The outcome of the intervention will be assessed based on subsequent HbA1c done.

Result: The findings will be elaborated further based on the data that will be extracted from the TelePrimary Care (TPC) System. Appropriate statistical analyses will be carried out.

Conclusion: Appropriate conclusions will be derived from the statistical analyses done on the data obtained.

PP43

My Fitness Buddy: a multi-component life-style modification group program

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Introduction: In Malaysia, the prevalence of obesity had increased by 302% in just under two decades (NHMS 2015). Apart from medical complications, obesity affects quality of life leading to psychological problems including low self-esteem and depression. A multi-factorial model for the etiology of obesity makes treatment becomes a challenge and multi-component programs have become a necessity. My Fitness Buddy (MFB) attempted to reduce body weight, body mass index (BMI), total body fat and visceral fat, and increase muscle mass.

Methods: MFB is a multi-component life style modification program with nutritional and physical activity group approaches. Nutritional interventions include a seminar on healthy well-balanced diet and continuous education via WhatsApp group. Physical activity interventions include 180 mins of moderate to high intensity exercise. Participants were recruited through public advertisements in the social media. Physical Activity Readiness Questionnaire (PAR-Q) was used to assess risk to exercise. The outcome parameters were measured at pre-intervention and immediate post-intervention. The data was analyzed with paired t-test using SPSS 24.0.

Results: Data was analysed among 37 adults with median age of 32 (10) years old. There were highly significant decrements for body weight and BMI ($p < 0.001$). Significant decrements were achieved for total body and visceral fat (< 0.05), and increment (< 0.05) in muscle mass.

Conclusion: MFB is effective in reducing body weight, BMI, total body fat and visceral fat, and increasing muscle mass. Future studies with larger number of participants, control group and assessed after a longer duration will provide stronger evidences.

PP44

Improvement of HbA1c among diabetic patients enrolled in Insulin Titration Clinic (InsTiC) at Klinik Kesihatan AU2 in Keramat, Kuala Lumpur

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Introduction: Glycaemic control is suboptimal in many diabetics. Based on 2015 National Health Morbidity Survey (NHMS), the overall prevalence of diabetes was 17.5% and 25.1% known diabetics were reported to be on insulin. Many of insulin-treated diabetics are unable to attain and maintain target glycaemic control. One of the factors was prescription of insulin without prompt optimisation and intensification of regime. The aim of this study was to measure change of HbA1c after intensive insulin titration sessions in our 6-month InsTiC programme.

Methods: A total of 64 patients who were registered insulin-treated diabetics aged 18 years and above, Malaysian citizen and able to commit frequent clinic visits and perform self-monitoring blood glucose (SMBG) were enrolled. Pregnant women were excluded. Baseline demographic data and HbA1c were collected. Participants underwent several clinic sessions tailored to their needs and had their HbA1c level repeated between 12-24 weeks after enrolment.

Results: Fifty-three out of 65 participants completed the 6-month programme (Male=27 vs. Female=26). Mean age was 56.2 (SD 11.2). Majority were on existing insulin regime (64.2%). The mean HbA1c at baseline was 10.1% (SD 1.6%). Among the participants, 50.9% had HbA1c of >8-10%; 45.3% had HbA1c of >10% at the outset. The repeated mean HbA1c was 8.7% (SD 1.8%). A reduction of 1.31% HbA1c [(95%CI 0.92-1.70), p<0.001] was observed.

Conclusion: There was significant improvement of HbA1c among insulin-treated diabetics enrolled in our InsTiC programme. The programme should be expanded and enhanced to improve overall diabetic care in our clinic.

PP45

Knowledge of hypertension and medication adherence among hypertensive patients in Petaling Health Clinic: a cross sectional study.

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Introduction: Good knowledge of hypertension is linked with better blood pressure control. A good knowledge of hypertension and medication adherence is significantly associated with better blood pressure control. The objective of this study is to assess the knowledge on hypertension and medication adherence among patients with hypertension attending health

Methods: A cross-sectional study was conducted in May 2018 at 6 government clinics in Petaling District among hypertensive patients who understand English. Convenience sampling was used. A self-administered questionnaire was used to their socio-demographic characteristics, knowledge on hypertension and adherence to antihypertensive based on Morisky 8 items medication adherence scale. The clinical characteristics were supplemented from the medical records.

Results: 450 patients were approached and the response rate was 84%. The mean age of the participants was 58.3 years old (SD=11.56). Majority was Malay (53.3%) and married (85%). The mean SBP was 133.14 mmHg (SD=14.18) and the mean DBP was 79.26 mmHg (SD=10.09). 69% of the participants had good BP control of less than 140/90 mmHg. The overall knowledge was good (90.2%). 237 participants (62.9%) knew the cut off value of blood pressure for hypertension but only 80 participants (21.1%) able to give the correct answer. Majority of the subjects (62.3%) had

symptoms like headache each time his/her blood pressure is high. 46.4% of subjects believed that hypertension is a curable condition whereas 44.8% believed otherwise. 58.1% shows good medications adherence (MMAS ≥6). In this study knowledge and medication adherence was not associated with the good BP control.

Conclusion: The overall knowledge score on hypertension was good. The Medication Adherence was fair. However other factors which affects BP control needs to be studied.

Poster Abstract 46

Peritonsillar abscess case report: a diagnosis not to be missed

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Introduction: A 34 year-old gentleman, a smoker, presented with low grade fever, cough, sore throat, and 'hot potato' voice for five days. He was morbidly obese with obstructive sleep apnoea (OSA). There were no other associated symptoms. His vitals were stable. Mouth examination revealed trismus, uvula deviated to the right, soft palate swelling displaced anteriorly and centrally on right side. Bilateral tonsillar enlargement (Grade 3-4) with 95% obstruction of oral cavity. Liverpool Peritonsillar Score (LPS) was 7.5. Diagnosis of right peritonsillar abscess (PTA) was made. Differentials included peritonsillar cellulitis, retropharyngeal abscess or retromolar abscess. Incision and drainage (I&D) was done and pus swab culture and sensitivity was negative. He was discharged well with oral Co-Amoxiclav 625mg tds for one week.

Discussion: Peritonsillar abscess (PTA) is an emergency as it may cause airway obstruction, aspiration pneumonia, extension into deep tissues or septic necrosis into carotid sheath resulting in extensive haemorrhage. There are two theories on PTA pathogenesis, commonly as a complication of acute tonsillitis and more recently the Weber gland hypothesis. Risk factors for PTA includes age (mid-teen to 40-years), male, smoking, immunocompromised, periodontal disease and past history of antibiotics. The LPS score was developed to help family physicians diagnose PTA's, defined by a score of more than four. Treatment includes aspiration, I&D, Quinsy Tonsillectomy and intravenous antibiotics. Steroids are said to reduce hospitalisation and recovery time, however cost and risk benefit should be considered. Recurrent PTA risk is as high as 9 to 22 percent.

PP47

Knowledge, attitude and practice of breast cancer and its screening among women in rural Terengganu

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Introduction: Breast cancer is the leading cause of cancer death among women in Malaysia. Knowledge and attitude on breast cancer are associated with screening practice. The aims of the study were to assess the knowledge, attitude

and practice (KAP) on breast cancer and its screening among women in rural Terengganu.

Methods: Three health clinics in rural Terengganu selected through simple randomized sampling were KK Telemong, KK Kuala Berang and KK Bukit Besi. Self-administered questionnaires were distributed to 391 women who attended these health clinics. The questionnaire contained 28 questions on knowledge, 56 questions on attitude and 3 questions on practice. The knowledge responses included 'Yes', 'No', and 'Don't know', attitude responses were in Likert scale, and practice responses were open ended questions. Reliability for attitude subscales were between 0.7 to 0.9.

Results: The mean (SD) age of the participants was 34.36 (9.59) years. Majority (60 percent) had secondary school educational. The mean (SD) score for knowledge was 67.6 (9.97) %. Majority had positive attitudes (score of 50% and above) on breast cancer and its screening. About 70% of women aged 50 years and above had never done mammogram, 66% (of any age) had never done clinical breast examination (CBE) and 27% had never done breast self-examination (BSE). Only about 30% of women did BSE every month and 15% did CBE every year.

Conclusion: Knowledge and attitude level among rural women in Terengganu were acceptable. However, practice on breast cancer screening was poor. Education and campaign on breast cancer screening should be emphasized.

PP48

Populating vital signs profile in Malaysia: challenges and opportunities

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Introduction: Malaysia collaborated as a 'trailblazer' country with PHCPI (Primary Health Care Performance Initiative) to populate the Vital Signs Profile for the country. The Primary Health Care (PHC) Vital Signs Profile (VSP) provides an innovative snapshot of the primary health care system. It demonstrates the areas of strength, weakness and challenges in the system and can help identify priority areas for improvement.

Methods: VSP was developed by global experts and is based on the PHCPI Conceptual Framework. It measures four domains of the PHC system, the first phase was to populate financing, performance and equity. For Malaysia, majority of the alternative data sources were populated from the existing Health Information Management System and National Health and Morbidity Surveys.

Results: The Malaysian VSP showed that the government spent 39% of its overall health spending on PHC. The access index indicates that 93% of the population have access to health care. The quality index showed 80% of the clients received quality PHC service at the point of care in public health facilities. Data was unavailable for person-centeredness and provider availability and these will be the focus areas in measurement of our PHC while implementing the capacity domain of phase two of the VSP.

Conclusion: Evidence-based initiatives to strengthen PHC depends on analysis of existing data, recognizing data gaps and the need for further studies. The PHC VSP is an important measurement tool that the Ministry of Health and stakeholders can utilise to further improve primary health care and achieve universal health coverage for Malaysia.

PP49

Risk perception and knowledge regarding diabetes among offspring of type 2 diabetic patients

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Introduction: The rapid increase in Type 2 Diabetes Mellitus (T2DM) among the younger age group is a growing concern worldwide. Assessing the perception of risk and knowledge among those at risk provides an opportunity for early intervention, delay or preventing its onset.

The aim of this study is to determine the perceived risk of developing Type 2 Diabetes Mellitus (T2DM) and knowledge among offspring of diabetic patients.

Methods: A cross sectional study using a self-administered questionnaire was conducted among university students whose parents have type 2 diabetes to determine their perceived risk and knowledge on T2DM. Participants who correctly identified themselves at risk are defined as having correct risk perception. Those who scored equal and above the median score were defined as having higher knowledge.

Results: A total of 336 university students participated in this study and 56.5% of them correctly identified themselves at risk of developing T2DM. About half of them (52.7%) had higher knowledge of T2DM. Males appeared to have better risk perception ($p=0.024$) compared to females while those with mothers affected by T2DM appear to have higher knowledge ($p=0.007$). Most of the information regarding T2DM was obtained from the internet (87.5%) and family members (77.9%).

Conclusion: About half of the participants correctly identified themselves to be at risk and had knowledge regarding T2DM. Those whose mothers had T2DM appear to have better knowledge and information regarding T2DM was mostly obtained from the internet and family members.

PP50

Coping with health challenges while ageing alone in the Klang valley: a qualitative study

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Introduction: Ageing and managing chronic illnesses while living alone can be challenging for older persons. Many older Malaysians are choosing to live alone even with various chronic illness conditions. The aim of this study was to explore coping skills used by older persons living alone with chronic illness and any unmet needs they face while living alone.

Methods: Older persons with chronic illnesses living alone and attending an urban primary health care clinic in Malaysia were purposively selected. Individual in-depth interviews were conducted in participants' homes. Audio recordings were transcribed verbatim and analysed thematically.

Results: A total of 13 older persons aged between 60 and 90 years of ages from various socio demographic profiles and who were living alone with chronic illnesses, participated in the study. Three main themes on the coping skills used by older persons emerged: (i) skills in ensuring self-independence in activities of daily living; (ii) seeking help from family and friends; and (iii) spirituality. With regards to their unmet needs two themes emerged (i) the lack of information and preventive care services from the health care provider; and (ii) inadequate healthy nutritional intake. Not being a burden to others was also of great importance to them.

Conclusion: Participants in this study are motivated to cope on their own and employ personal, social and spiritual skills to do so. Areas of concern such as unintentionally detrimental self-management skills and poor delivery of information and preventive care from healthcare providers need to be addressed.

PP51

Prevalence and factors associated with internet addiction among adolescents in Malaysia

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Introduction: Internet addiction (IA) among adolescents has become an important health problem as it is associated with many negative consequences if not prevented early. The adolescence is a vulnerable subgroup as they are digital natives with wide exposure to the internet and are at high risk of initiation of addictive behaviour. Therefore, early detection of IA in this subgroup is important for early intervention. The

objective of this study was to determine the prevalence and factors associated with IA among adolescents in the primary care setting in Malaysia.

Methods: This was a cross-sectional study done among adolescents aged 10 to 19 years of age in 15 primary care clinics throughout Malaysia using the validated Malay version of Internet Addiction Test (IAT). Sampling was done using systematic random sampling method. IA is defined as IAT score test of more or equal to 43 points. Respondents that score less than 43 points are classified as non-internet addicts.

Results: A total of 921 participants were included in this study. The male population was 49.5% (n=456) with mean age of 16.38±2.38 years. The prevalence of IA was 56.4% (n=519). The significant predictors of IA were age (p < 0.001; CI 1.09-1.29), mother's high education level (p = 0.001; CI 1.61-5.99) and having a smartphone (p = 0.012; CI 1.23-5.25).

Conclusion: This study showed that there is a high prevalence of IA among adolescents in Malaysia.

PP52

Home blood pressure variability and its associated factors among cigarette smokers in Hospital Universiti Sains Malaysia

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Introduction: Blood pressure variability (BPV) is defined as fluctuation of blood pressure occurring over a period. Studies found that increased BPV as a strong predictor of stroke and coronary events. (1) To describe the home blood pressure variability (HBPV) in daily tobacco smokers. (2) To identify the sociodemographic, smoking parameters, psychological and cardiovascular risks associated factors for home blood pressure variability in daily tobacco smokers.

Methods: This is a cross-sectional study involving 102 smokers aged > 18 years old who attended out-patient clinic, Hospital USM. The BPV was measured based on serial HBPM using SD of systolic blood pressure (SBP). Participants were required to complete questionnaires on sociodemographic, smoking parameters, psychological and cardiovascular risks factors.

Results: The HBPV measure from mean SBP was 7.65mmHg and the median was 7.90 mmHg. Older age (P<0.001), involvement with shift work (P<0.001), higher number of cigarettes smoked in a day (P=0.048), increased body mass index (P=0.001), and co-morbid hyperlipidaemia (P=0.014) were significantly associated with HBPV.

Conclusion: The HBPV in daily tobacco smokers was higher than the reported among general population from previous studies. Measures should be taken to reduce the HBPV among smokers with older age, involved with shift work, smoked high number of cigarettes, increased BMI, and co-morbid hyperlipidaemia.

PP53

Diseases, injuries and risks of Malaysian adolescents, 1990 - 2015: systematic analysis from the Global Burden Disease Study 2015

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Introduction: The epidemiological transition has resulted in a large population of adolescents in Malaysia, whose health burden is poorly described. We set out to provide a comprehensive profile of health in Malaysian adolescents.

Methods: A conceptual framework for reporting health and wellbeing of Malaysian adolescents was defined to measure health outcomes and risks. Data from the Global Burden of Disease 2015 study were used to analyse health outcomes and selected health risks for 10-24 year old Malaysians, by age groups (10-14, 15-19 and 20-24-years) and sex, from 1990 to 2015.

Results: While the total disease burden decreased, most of this decrease was due to mortality, with morbidity appeared unchanged for all age groups and sexes between 1990 and 2015. Most of the reductions in mortality appear driven by reductions in communicable disease while there are some increases in the death related injuries such as motorcycle injuries in males of all age groups. Drowning and typhoid fever were the leading causes of death in 10-14 year old males and females, respectively. In 2015, the major disease burden in older adolescents was from chronic physical disorders, mental disorders, unintentional injuries and violence, with minimal improvement from 1990. A substantial decline in total burden from infectious diseases and under nutrition, but remained most prevalent in 10-14-year-olds. The prevalence of male tobacco smoking had changed little, at 22.1% in 1990 and 18.6% in 2015. In contrast, rates of overweight and obesity had nearly doubled in both sexes.

Conclusion: While mortality has declined in Malaysian adolescents, the morbidity rates have been effectively static in the past 25 years and there has been a dramatic increase in some health risks. These data highlight that adolescent specific interventions are inadequate and health actions are required to address the disease burden from injuries, NCDs and obesity.

PP54

Adolescent health program in Lubok Antu district: prevention and reduction in the number of early adolescent pregnancies and creation of awareness on sexual and reproductive health

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Introduction: Statistics shows that Sri Aman division has the third highest number of adolescent pregnancies in Sarawak. Based on Adolescent pregnancies data of Sri Aman Division recorded from January-December 2018, the prevalence of adolescent pregnancies was 8.5%, which was static compared to previous year, 2017. Lubok Antu district contributes 30.8% and 25.3% to the total number of adolescent pregnancies in Sri Aman division in 2017 and 2018 respectively. The objective of the program is to prevent and reduce the number of early adolescent pregnancies and strengthen sexual health education through a comprehensive, structured and integrated health program in Lubok Antu District.

Program: The Adolescent Health Program was initiated by Klinik Kesihatan Lubok Antu in collaboration with several agencies. It has become an annual health program since 2018. Health screening, group activities and health talks on selected topics are among the highlights of the program.

Results: The data from adolescent health screening (BSSK) in 2018 and 2019 revealed adolescents with sexual and reproductive health risks were 12.3% and 19.7% respectively, which were increasing in trend. Other important health risks detected were nutritional problems, smoking, alcohol consumptions, physical inactivity, mental health problems and involvement in harmful and dangerous activities.

Conclusion: Realizing the multitude of problems following adolescent pregnancies and some other health risks faced by adolescents, investment on the promotion of healthy behaviours among adolescents via a structured, comprehensive and integrated Adolescent Health Program is valuable for their health benefits, future health and its intergenerational effects.

PP55

Enhanced primary health care at PKD Kuala Langat: one-year post implementation

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Introduction: Enhanced primary health care (EnPHC) is an initiative developed by Ministry of Health (MOH) to improve non communicable disease management in the primary care setting following findings highlighted in Malaysia Health System Research. Three clinics were chosen from PKD Kuala Langat, which are KK Telok Datuk, KK Telok Panglima Garang and KK Bukit Changgang. This study will look at the achievements of these clinics.

Methods: Eight indicators set by MOH were used as evaluation of this program. Cumulative data were collected based on monthly census from respective clinics.

Results: The first indicator is population enrolled KKTD 68.2%, KKTPG 81.6% KKBC 100.9% (target 95 %), for assign population screened KKTD 14.8%, KKTPG 25.6% KKBC 20.7% (target 50%), newly diagnosed diabetes KKTD 0.4%, KKTPG 1.3% KKBC 1% (target 9%), newly diagnosed hypertension KKTD 0.4%, KKTPG 1.1 % KKBC 0.9% (target 17%), newly diagnosed dyslipidemia KKTD 0.36%, KKTPG 1.43% KKBC 0.15% (target 38%). As for adherence to medication refill KKTD 76.6%, KKTPG 76.4% KKBC 84.9% (target 90%), compliance to clinic appointments KKTD 88.9%, KKTPG 85.7% KKBC 84.3% (target 90%), and compliance to hospital appointments KKTD 95.9%, KKTPG 73.3% KKBC 80% (target 100%)

Conclusion: Although the health clinics did not achieve target set by MOH, the findings are encouraging given the challenges faced by implementers at ground level.

PP56

Patient satisfaction with doctor-patient interaction using SKIP-11 and its associated factors among type 2 diabetics in HUSM

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Introduction: Prevalence of Diabetes Mellitus is rising globally. In Malaysia, the prevalence of diabetes continues to rise. The quality of diabetes care is widely sub-optimal and most of the interventions depend on active involvement and participation of patients. Understanding and determination of patient related factors can help primary care provider to pay more attention and care to those patient, thus improving their satisfaction which further enhance compliance or adherence to diabetic treatment.

Methods: A cross sectional study conducted from 1st April to 1st July 2016 among adult Diabetic patients attending Family Medicine Clinic HUSM. A total of 417 patients who fulfilled inclusion and exclusion criteria were selected via systemic random sampling. Patient satisfaction on doctor patient interaction was measured by using SKIP-11 questionnaire. Analysis was done using SPSS version 22.

Results: 60% of participants were satisfied with doctor patient interaction. Among the subtype in satisfied group, domain of rapport has highest percentage of satisfaction, 77.7%. There was no association between patients' sociodemographic toward doctor patient interaction. HbA1c was the significant associated factor to the satisfaction with doctor patient interaction in this study. For every 1% reduction in HbA1c level, the likelihood of high patient satisfaction is 12% (95% CI 0.81, 0.97 $p < 0.05$).

Conclusion: 60% of the participants clearly illustrated positive feedback and more satisfied to the interactions with their treating doctors. However, 71.5% the participants had not yet archive good glycaemic control. HbA1C was found to be significantly associated with patient satisfaction on doctor patient interaction. A good doctor-patient relationship increased adherence to treatment recommendation, enhance continuity of care, and promotes better health care and self-reported health.

PP57

Utilization of traditional and complementary medicine (T & CM) in a primary care setting: a profile in Malaysia

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Introduction: Traditional & Complementary Medicine (T & CM) is widely used worldwide. Malaysia Holistic and Herbal Organization (MHHO) which has been providing free services to Jinjang Geriatric Club members recently established a center nearby to the clinic in March 2018 in view of its demand at primary care level. This study aims to determine the epidemiology and utilization of different T & CM modalities among patients in a primary care setting.

Methods: This is a retrospective cross-sectional study of all patients who visited MHHO from 1st March to 31st August 2018. Data regarding sociodemographic, diagnosis, health profile and types of T & CM therapies received were collected and analysed using Excel 2018.

Results: 234 patients were analysed with a mean age of 61.7 years old (SD+17.0). 51.8% of patients were in the age group of 65 years and above. Majority were female (71.4%) and of Chinese ethnicity (89.7%). More than one third have hypertension (44.4%). Musculoskeletal problems contributed the main bulk (64.3%) for the visit to MHHO centre, followed by neurological disorders (12.1%). The main T & CM modalities utilized at that centre were traditional Chinese medicine (28.3%), followed by Qi Gong (22.9%), acupuncture (22.4%), acupressure (19.4%). Less than 10% of the patients were given other modalities such as traditional Indian medicine, Varmam and osteopathy.

Conclusion: T & CM is favourable in primary care especially for musculoskeletal problems. This study helps to fill the gap on feasibility of integrating T & CM practices into primary health care.

PP58

Recognizing dementia in a person with uncontrolled diabetes mellitus at primary health care

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Introduction: Dementia in a multi-faceted illness deriving from various causes. Advancing age and multiple comorbidity is recognized as risk factor in increasing cognitive impairment among elderly. We present a case of uncontrolled diabetes which lead to the diagnosis of dementia

Case Report: Madam R is a 66 year old lady who has underlying Type 2 Diabetes Mellitus, Hypertension and Dyslipidemia. She is an able-bodied person, who regularly comes for her clinic appointments by herself. Her glycemic control has been worsening for the past 1 year despite lifestyle modification and medical treatment which she was adhering. Her subtle memory decline was first noticed when she continues to administer old dose of insulin even with

escalation of treatment which has been reiterated during multiple clinic visits by doctors and pharmacist. Home visits by NCD team revealed surplus of medication at home. Further history and assessment lead to the diagnosis of dementia.

Conclusion: Diabetes mellitus is linked for developing dementia in elderly. As managing of diabetes is mainly done at primary health care, clinicians need to ensure early recognition of cognitive impairment and manage this condition appropriately

PP59

Barriers to insulin self-titration among type 2 people with diabetes using insulin: a qualitative study

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Introduction: Glycemic control among insulin-treated Type 2 people with diabetes is poor despite insulin initiation and intensification. This is partly due to insufficient insulin self-titration which is caused by many factors. This study aimed to explore the barriers among people with Type 2 diabetes who are using insulin.

Methods: A qualitative study with 18 Type 2 people with diabetes who are using insulin using semi-structured in-depth interviews was conducted in August 2018. Recruitment continued until data saturation was reached. The Health Belief Model was used as the theoretical framework. Interviews were audio-recorded and transcribed verbatim. Thematic analysis was performed.

Results: The barriers to insulin self-titration were lack of adequate support from healthcare providers, misperceptions about self-titration and practical barriers to self-titration. The participants were uninformed on self-titration, received inappropriate information and lack of reinforcement from the healthcare providers. Their misperceptions included the insulin's side effects, symptom-based titration for hyperglycemia and going back to baseline insulin dose after self-titration. The practical barriers were the high cost of test strips, difficulty integrating sugar monitoring with daily schedule and concern about hypoglycemia.

Conclusion: There was a range of barriers when attempting to self-titrate. There was a miscommunication between the healthcare providers and the patients during the consultations. Understanding the barriers would help healthcare providers in providing effective consultation among patients on insulin titration.

PP60

Analyzing psychological status of patient with chronic wound from patient and caretaker perspective: a cross sectional study

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Introduction: There is considerable evidence that chronic

wounds can lead to negative emotional states such as anxiety and depression (Guo and DiPietro, 2010), which in turn can affect wound healing. These may be a result of the wound itself, the pain associated with the wound, and the social or physical consequences of the wound. Study shown that chronic wound imposed psychological and economic burden to patients and their caretakers (Krister et al, 2017). The objective of this study are to identify the prevalence of common psychological/emotional status and its severity among the patients and the caretakers.

Methods: This is a cross-sectional study done among the patients with chronic wound and their caretakers who came for the dressing in the clinics in Kluang district from Mac to April 2019. The psychological assessment was done by using validated mental health screening tool DASS-21.

Results: A total of 28 patients and 14 caretakers agreed to participate in this study. Almost 79% (n=20) are males and 21% (n=8) are females, age ranging from 26 to 80 years old with mean age 55 years in patient group. The prevalence of common psychological abnormality is 46% (n=13), with depression 32% (n=9), anxiety 29% (n=8) and stress 18% (n=5). The severity level in is mild 43% (n=12), moderate 25% (n=7) and very severe 11% (n=3). Among caretaker, there are 71% (n=10) males and 29% (n=4) females, age ranging from 29 to 62 years old with mean age 43 years. Psychological abnormality in this group is 36% (n=5), with stress 29% (n=4), anxiety 21% (n=3) and depression 21% (n=3). Severity analysis of caretaker group is mild 50% (n=7), severe 14% (n=2) and very severe 7% (n=1).

Conclusion: Majority of the patients with chronic wound and their caretakers have some degree of emotional disturbances which can be easily identify and intervene at primary care level by health care provider. Subsequently, emotional disturbances in those affected directly or indirectly by chronic wound may negatively impact quality of life.

PP61

Ocular tuberculosis presenting as persistent conjunctivitis: a case study

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Case Presentation: A 29 year old male was referred to the Ophthalmology Unit by his primary care physician for persistent conjunctivitis with repeated visits to primary care. During the first visit, he presented with an itchy, red right eye for 3 days duration. He did not give a history of wearing contact lens, trauma or splash injury to the eye. He was examined, diagnosed as viral conjunctivitis and sent home with oral anti-histamines. 2 weeks later he returned complaining of pain and blurring of vision over his right eye with photophobia. Vision was reduced on the right, with visual acuity of 6/12 versus 6/9 over the left. On examination, there was chemosis over the right eye whilst the left eye appeared injected. Both pupils were round and reactive to light. RAPD testing was negative. At the specialized Ophthalmology Unit, a slit lamp examination revealed papillae over the right eyelid with multiple cells

in the anterior chamber (right eye more than left). Although fundus appeared normal with cup-disc ratio of 0.7, fundus fluorescein angiography revealed multiple areas of fluorescein leaks in the outer lower quadrant of the fundus, confirming retinal perivasculitis. Upon further questioning, he revealed that he worked as a drug enforcement officer and had contact with tuberculosis (TB) suspects. He denied cough, night sweats or constitutional symptoms.

Investigations: FBC: TWBC 9.9x10⁹/L, Hb 14.4g/dL, Plt 238x10⁹/L, HIV, VDRL and Hepatitis B/C: Negative, ESR: 2mm, Tuberculin Skin Test (TST)/ Mantoux: 15mm, QuantiFERON-TB Gold In-Tube (QFT-G): Positive

Diagnosis: Ocular tuberculosis

Treatment: Anti-tuberculosis treatment (ATT). Intensive phase: Akurit-4 (Ethambutol 275mg + Isoniazid 75mg + Rifampicin 150mg + Pyrazinamide 400mg) 4 tablets daily for 2 months. Maintenance phase: Akurit-2 (Isoniazid 75mg + Rifampicin 150mg) 4 tablets daily for 4 months.

Outcome: The conjunctivitis resolved soon after initiating ATT. Vision also improved to 6/9 bilaterally 3 months post ATT.

Discussion: Extra pulmonary TB is a great masquerade and may mimic other diseases. Ocular TB is no exception and may present as persistent conjunctivitis. TB may affect all areas of the eye, most commonly the posterior segment and uvea. Diagnosis of ocular TB remains a challenge, as it is not always possible to get a tissue biopsy and culture, particularly if it involves the posterior retina and optic nerve. Furthermore, low bacillary load and the small volume of vitreous fluid make histopathological and Polymerase Chain Reaction (PCR) diagnosis difficult. Interferon-gamma release assays (IGRA) such as the QuantiFERON-TB Gold In-Tube (QFT-G) test show higher specificity and sensitivity than TST in detecting active pulmonary tuberculosis, but fails to do so in cases of latent TB. Thus, diagnosis is usually presumptive based on clinical findings and other ancillary investigations such as ESR and the TST/ Mantoux test. The majority of ocular TB cases resolved after a 6-month ATT regime although 9 to 18 months ATT regimes were not uncommon. Usage of systemic corticosteroid in ocular TB is still contentious. Whilst, the use of systemic corticosteroids alone increased risk of disseminated TB or disease recurrence, systemic corticosteroids were found to reduce inflammation and risk of macular scarring.

Conclusion: Clinicians in TB endemic areas should have a high index of suspicion for ocular TB when presented with a patient with persistent or recurrent ocular symptoms. Early detection and treatment with ATT will reduce the risk of ocular scarring and irreversible blindness.

PP62

Awareness, treatment and control of hypertension among population in suburb area of Sungai Buloh and Northern Petaling Jaya: a single centre private primary care service experience

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Introduction: Hypertension remain as the important cardiovascular risk factor globally. This study aimed to estimate the awareness, treatment and control of hypertension among adult in suburb area of Sungai Buloh and Northern Petaling Jaya.

Methods: The sample consisted of 186 adults aged 18 and above recruited from July 2018 – May 2019 who had visited our clinic for various presentation. History of hypertension, socio-demographics, treatment and follow up details were obtained. At least two blood pressure readings were collected.

Results: Age-adjusted prevalence was 38.5% (CI 37.2 – 39.4). Men was higher [54.2% (CI: 52.2-56.3)] than women [45.8% (CI: 43.2-46.8)]. Among the participants, 83.5% (CI: 81.4 – 85.2) were aware of hypertension, but only 48.3% (CI: 46.5 – 49.6) were on treatment and out of those who were on treatment, 65.6% (CI: 63.6 – 67.4) had their BP controlled. From all the sample, 72.5% (CI: 70.4 – 74.3) were follow up in Government Primary Care (Klinik Kesihatan).

Conclusion: Awareness of hypertension among population in this suburb was high, however the number of those who are on treatment is still low. Most of those who has hypertension are being follow up in Government Primary Care and the control of hypertension is still unsatisfactory. Interventions and role of primary care including private practices is crucial to ensure BP optimization and reduce their risk of developing complications.

PP63

Childhood vaccine hesitancy among expectant mothers at semi-urban health clinics in Klang Valley, Malaysia.

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Introduction: Increasing vaccine hesitancy towards routine childhood vaccinations leads to outbreaks of preventable diseases. However, Malaysian data on vaccine hesitancy among pregnant women is still lacking. We aimed to evaluate vaccine hesitancy among expectant mothers and its associated factors.

Methods: A cross-sectional study involving 274 expectant mothers was conducted at 2 government health clinics in Hulu Langat, Selangor. Data was collected from August until October 2018 using systematic random sampling. A validated bilingual (English-Malay) self-administered questionnaire was used to collect information on sociodemographic characteristics, vaccine hesitancy and its reasons, level of knowledge on childhood vaccination and sources of information.

Results: Majority of the participants were Malays (87.2%) and had 1-3 children (76.4%). About half worked in the non-professional sector (53.5%) with a middle-class income (55.5%) and was pregnant at third trimester (51.3%). Prevalence of vaccine hesitancy was 18.6%. The commonest reason for vaccine hesitancy was 'worried of the vaccine's side effects' (31.4%) and the median (IQR) score of knowledge was 10.0 (5.0) out of 16. Other healthcare providers (HCPs) (73.5%), doctors (68.9%) and media/social media (59.1%)

were the commonest sources of information. Lower level of knowledge (AOR: 0.73, 95% CI: 0.57-0.92, p-value: 0.010) and no previous counselling on childhood vaccination given by other HCPs (AOR: 8.86, 95% CI: 2.10-37.39, p-value: 0.003) were independently associated with vaccine hesitancy.

Conclusion: Prevalence of childhood vaccine hesitancy among expectant mothers was substantial. Early targeted educational intervention on childhood vaccination during antenatal period by HCPs would be beneficial to reduce vaccine hesitancy among them.

PP64

A case control study on infant massage and breastfeeding outcome among mothers

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Introduction: The practice of infant massage has been reported to provide benefits of improved mother-infant interaction and breastfeeding outcome. The objective of the study is to examine the influence of infant massage on breastfeeding outcome.

Methods: Using a comparative cohort study design, 310 mothers whose babies were 4 weeks old and still breastfeeding were recruited from the selected MCH clinics within Kuching District for the intervention and control groups, after prior ethnics' approval. Study group mothers (mean age 29.2 years) were taught the adapted infant massage program by a certified infant massage instructor in a small group of 4-5 mothers each. A bottle of (60 mls) cold-pressed olive oil and a hand-out of the massage strokes were given to mothers who were asked to have baby massage session twice a day for 10-15 minutes each. Questionnaire on breastfeeding-related outcome (frequency, duration, supplementary food; exclusiveness) were administered to both groups of mothers on recruitment and on baby's age 12 weeks. A dropout of 10 study group participants was noted due to loss to contact.

Results: 84.8% (n=123) of the study group (N=145) reported still breastfeeding versus 77.4% (n=120) in the control group (N=155). However, almost half of the both groups had started on complementary feeding with formula milk of at least 1-2 times per day. Higher percentage of the study group than control group breastfed their babies at least 3-4 times per day. Apparently more of the study group reported at least 6-10 minutes for each breastfeeding session. Among the reasons indicated from mothers of both groups for not breastfeeding include milk insufficiency and the needs to resume work.

Conclusion: Infant massage could be one of the factors which influence positively on breastfeeding outcome in the local context.

PP65

Feasibility of asthma self-management booklet utilization amongst family medicine physicians

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Introduction: Development of a user-centered healthcare intervention tool requires feasibility and usability study to evaluate acceptability, usability, strengths and weaknesses of the tool. To ensure that the Asthma Self-Management Booklet is acceptable and useful, we aimed to explore its feasibility and refine it based on the findings.

Methods: Semi-structured focus group discussions (FGDs) were conducted amongst family medicine physicians to explore user experience, appropriateness and satisfaction of usage of the tool. Participants were recruited via purposive sampling. FGDs were transcribed verbatim, coded and analyzed thematically. Atlas.ti version 8 was used for data management.

Results: Ten family medicine physicians participated in two FGDs between December 2018 to April 2019. Most were females (n=8, 80%) and postgraduate trainees (n=8, 80%). Three themes were found: user experience; perceived appropriateness and intent to continue use. For user experience, participants expressed convenience as the booklet facilitates assessment of symptoms control using ACT scoring and asthma diary. However, the book is under-utilised by patients due to lack of awareness for self-monitoring. Participants found the booklet is useful for monitoring of symptoms, and an essential and relevant resource for asthma. However, lack of training affects its usage among the physicians. Participants expressed that having supportive system in the clinics and involvement of nurses would help in continued usage of the booklet.

Conclusion: The Asthma Self-Management Booklet is acceptable amongst the family medicine physicians. However, the uptake and its continued usage can be improved via patient awareness, physician training and support from the nurses.

PP66

The psychological morbidities among spouses of men with type 2 diabetes mellitus (T2DM) and erectile dysfunction (ED)

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Introduction: Erectile dysfunction (ED) negatively affects sufferers' emotions, but its effect on their spouse's psychological well-being remain unknown. Thus, the objective of this study is to examine psychological morbidities and its

associated factors among spouses of men with type 2 diabetes mellitus (T2DM) and ED.

Methods: This cross-sectional study involved 115 women recruited through their spouses who were patients at a government health clinic in Penang. A self-administered questionnaire was used to assess their socio-demography, possible depression, anxiety and stress using DASS-21, health information, marital history, sexual history and perception on husband's ED.

Results: The prevalence of psychological morbidities was 28.7% (depression: 17.4%, anxiety: 25.2% and stress 10.4%). They were mainly middle-aged (Median (IQR) age: 44.0 (11.0) years), employed (55.7%) and from B40 income group (81.7%). About 47.0% had medical problem. Mean (SD) for duration of marriage was 18.7 (7.9) years. Almost all (90.4%) had sexual intercourse (SI) within the previous month. Majority had moderate to high interest in SI (72.2%) and 1-2 SI/week (69.6%), but they did not perceive their husband has ED (75.7%). Using multiple logistic regression, no factors were significantly associated with depression and stress. Only presence of medical problem was significantly associated with anxiety (AOR: 2.85, 95%CI: 1.11-7.29, p-value: 0.029).

Conclusion: Psychological morbidities are quite common among spouses of men with T2DM and ED. Sexual and marital factors appear to be insignificant influence for their psychological wellbeing. Since almost all were still sexually active, their spouse's ED may be mild, unaffacting their sexual relationship.

PP67

Substance use among Methadone maintenance treatment clients in an urban primary care clinic in Hulu Langat district, Selangor, Malaysia: a descriptive study

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Introduction: Methadone maintenance treatment (MMT) has been proven as successful harm reduction program. However, concomitant substance use during MMT jeopardise its success. The objective of this study is to determine the prevalence of substance use and level of interventions required among MMT clients in local setting.

Methods: This was a cross sectional study conducted in an urban primary care clinic in Hulu Langat district in December 2018. Purposive sampling was used among registered MMT clients in this clinic who were Malaysian citizen male or female of age 18 years and above. Data was collected from each respondent via investigator aided questionnaire. The validated Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) questionnaire in Malay was used. The score obtained represent the burden of the substance use which guide the level of subsequent management to either requiring no intervention, brief intervention or intensive intervention.

Results: Total 60 respondents took part in this study; 98.4% male with mean age 49.8 years (32, 67). Respondents were

74% of Malay ethnicity and 76% Muslim. Mean dose of Methadone was 66.5mg (10, 175). Majority of respondents (90%) used tobacco product and required interventions. Despite on MMT, 51.6% respondents still used opioid and required brief interventions while 6.7% needed intensive interventions for opioid use. There were 5% of respondents requiring brief intervention for the use of various substances like amphetamine type stimulant, cocaine and hallucinogens.

Conclusion: Substance use among MMT clients is common. MMT program is a good platform for holistic substance use detection and management in primary care setting.

PP68

Juvenile gouty arthritis: a teenage boy with polyarthritis

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Introduction: Joint pain is a common complaint in paediatric age group with overuse and traumatic injury being the common causes. However, joint pain involving multiple sites, persistent or recurrent, and severe in nature may suggest other diagnoses. This includes musculoskeletal and joint cancers, chronic infections, haematological and rheumatological disorders. Of note, rheumatological diseases are often difficult to diagnose requiring meticulous history taking, complete physical examinations and multiple laboratory investigations. This holds true especially in paediatric patients. Gouty arthritis is a rheumatological condition which manifested as disabling and recurrent flares of inflammatory arthritis due to urate crystals deposition in major joints. It can be diagnosed clinically without laboratory tests and it is common in adult population. However, it is rather uncommon in paediatric patients and diagnosis is often missed in the initial presentation.

Case report: We highlight a case of juvenile gouty arthritis in a 16-year-old boy who repeatedly presented to us with debilitating recurrent joints pain and swelling for six months. Other than class 1 obesity and mild joint swelling and tenderness, (different sites at each visit which was asymmetrical joint pain involved wrist, ankle, knee and metatarsophalangeal joint) without joint stiffness. Other physical examinations were normal. He was treated symptomatically and investigated. Serum uric acid was elevated but other biochemistry profile, limbs X-ray, urinalyses were normal. Retrospectively, patient reported that high purine diet precipitated his symptom. Combination of all the clinical information, it supported the diagnosis of gouty arthritis. Treatment with colchicine and allopurinol coupled with low purine diet improved his clinical condition and reduced his serum uric acid level.

PP69

Clinical audit on prescription of antihistamine in UiTM Selayang Primary Care Clinic

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Introduction: The use of antihistamine in managing common cold is a widespread practice in primary care clinics. However, inappropriate prescription practices could not only be potentially harmful; it also accounts for significant cost implication. Thus, the objective of this audit is to evaluate the current prescribing practice of antihistamine in UiTM Selayang Primary Care Clinic.

Methods: This is a retrospective audit involving electronic medical records (EMR) of patients prescribed with antihistamines between 1st January 2018 until 31st December 2018. A total of 420 patients' EMR were selected. 19 criteria were set based on literature, and the standards were agreed. The outcome is appropriateness of prescription based on age, assessment, diagnosis, dosage, frequency and the number of antihistamines prescribed.

Results: Loratadine tablet was the most prescribed antihistamine (49.7%). The most common presenting complaint was cough (30%), while the most common diagnosis was upper respiratory tract infection (40%). Overall, 10 out of 19 criteria were achieved. The criteria which was not achieved included clear documentation of patients' symptoms and diagnosis, the prescription of sedative antihistamine for cough and cold below 6 years of age and the availability of patient education material in clinic. Only 43.6% of the prescription fulfilled the criteria for appropriate prescription of antihistamine.

Conclusion: The findings suggests that majority of the recommended practices in prescribing antihistamine were adhered to. However, age-based recommendations in prescribing sedative antihistamine needs to be reinforced. Therefore, further training and updates need to be organized to keep the healthcare staff remain abreast with the latest guidelines.

PP70

Comparing the level of physical activity among urban and rural communities in an upper middle-income country

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Introduction: Low physical activity (PA) is associated with higher risk for cardiovascular diseases. There are contrasting evidences worldwide between urban and rural PA levels. The objective of this study is to assess and compare the level of PA between urban and rural population.

Methods: The REDISCOVER study is a prospective community-based cohort study involving 10,703 Malaysian adults in 18 urban and 22 rural communities from 2007 to 2018. Subjects aged 18 to 79 years old were asked to complete the International Physical Activity Questionnaire (IPAQ)-Long forms. PA level is then classified as low, moderate and high intensity. Data was analysed using SPSS version 24.

Results: 4539 subjects had complete PA data. The mean age was 51.04 + 9.0 (SD) years old. The mean comparison between total physical activity MET x Mins/week for urban is 7062.54 + 12001.97 (SD) and for rural is 9441.27 + 19036.40 (SD) with p value of <0.025. Low intensity PA in urban is 4.1% and rural is 4.6%, moderate intensity in urban is 17.5% and rural is 18.0%, high intensity in urban is 23.9% and rural is 31.9% with overall significance of p<0.025. Majority of subjects (91.3%) meet the physical activity guidelines (>150 mins/week) which is equivalent to moderate-to-high intensity PA. Subgroup multinomial regression analysis showed urban population is less likely to have high PA compared to rural [-0.26 (0.68, 0.87); p<0.001].

Conclusion: Majority of subjects fulfilled the recommended PA as per guidelines. Rural population are likely to have high PA level compared to urban population in Malaysia.

Poster Abstract 71

A qualitative study on factors influencing men's practice of family planning in a multi-racial community

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Introduction: Unmet needs from family planning can result in unintended pregnancies, leading to fetal and maternal complications. Studies exploring women's views and practices on family planning have shown that men play important roles in family planning. The objective of this study is to explore factors influencing men's practice of family planning.

Methods: This qualitative study involved 15 male participants recruited from an urban primary health care clinic by purposive sampling in Seremban, Malaysia. In-depth interviews were conducted using a semi-structured interview guide developed from the Health Belief Model. The interviews were audio-recorded, then transcribed verbatim. The data was analysed using inductive thematic analysis.

Results: Four main themes emerged from this study: (1) availability of resources, (2) balancing personal and family needs, (3) social influence on family planning methods and appropriate number of children, and (4) personal beliefs, cultural and religious influence. Apart from financial stability and good health, fulfilling their personal and family needs influenced men's practice in family planning. Female relatives and peers were important sources of information for

men. Diversity and interaction of local cultures could also influence men's practice in family planning.

Conclusion: These findings could be used in clinical practice to improve men's participation in family planning programmes. Health Care Providers should consider some aspects such as health, financial status, men's personal and their family's needs during counselling. Other strategies include providing family counselling, when necessary, to correct men's misconceptions on contraceptive methods at every opportunity and to organize community programmes promoting family planning.

PP72

Prevalence and associated factors of obstructive sleep apnoea (OSA) in antenatal mothers attending a health clinic using the Epworth Sleepiness Scale (ESS) and STOP-BANG tools.

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Introduction: OSA is recurrent episodes of upper airway obstruction during sleep, which leads to hypoxia, arousals and consequent disruption of normal sleep. In pregnancy, OSA may adversely affect both maternal and foetal outcomes causing pulmonary hypertension, pre-eclampsia, and low birth weight or foetal compromise. The objective of this study is to look at the prevalence of potential OSA during antenatal period and its associated factors using the Epworth Sleepiness Scale (ESS) and the STOP-BANG questionnaires.

Methods: This is a cross-sectional study using self-administered questionnaires on 204 pregnant women attending Klinik Kesihatan Dengkil from June-July 2015. Women with known sleep-disordered breathing prior to pregnancy were excluded. Data were analysed descriptively and to determine the association with independent variables using SPSS Statistics version 22.0.

Results: The prevalence of risk for OSA in our study population was 26.0% and 5.9% by ESS and STOP-BANG respectively. Majority were Malay, in their 20s with tertiary education level. A significant relationship ($p=0.03$) is found between ethnicity and risk of OSA using ESS where Malays were found to have the highest risk of OSA. However, there are no significant associations of socio-demographic factors STOP-BANG tool. Clinical factors including BMI, parity and other medical histories show significant associations ($p < 0.05$) with risk of OSA using the STOP-BANG tool.

Conclusion: This study shows that the prevalence of a positive OSA screen is higher when using the ESS compared to the STOP-BANG tool in pregnancy. It also suggested that there is an association between ethnicity with risk of OSA using ESS and BMI, parity and medical problem with STOP-BANG.

PP73

Factors associated with pedometer-determined physical activity among type 2 diabetes mellitus patients attending a university primary care clinic.

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Introduction: Regular physical activity is an important aspect of self-management among Type 2 Diabetes Mellitus (T2DM) patients; however, majority remain inactive. Many studies on physical activity were done before, but there is lack of objective physical activity assessment among T2DM patients in Malaysia. The objective of this study is to assess the physical activity level based on average steps/day and its associated factors among T2DM patients.

Methods: A cross-sectional study was conducted in a university primary care clinic in Selayang, between January and August 2017. Adults with T2DM for at least six-month duration were recruited consecutively. Sociodemographic characteristics were recorded via face-to-face interview and clinical data were obtained from medical records. Participants were given a sealed pedometer which they need to wear for seven consecutive days, from 8.00am-10.00pm, except when bathing and sleeping. The average steps/day were determined by averaging all steps taken over seven days.

Results: A total of 250 patients were recruited. The mean steps/day were 4049.33 ± 1421.15 steps. A total of 55(22%) participants were active, while 195(78%) participants were inactive. Among those in the active category, 49(19.6%) were low active at 5,000-7,500 steps/day, and 6(2.4%) were somewhat active at $\geq 7,500$ steps/day. Being physically active was significantly associated with being employed (AOR 2.30: 95% CI=1.19, 4.42, p -value=0.013), have shorter duration of T2DM (AOR 0.89: 95% CI=0.82, 0.95, p -value=0.001) and non-obese (AOR 6.95: 95% CI=2.45, 19.74, p -value<0.001).

Conclusion: The majority of this study population were inactive. Strategies to increase physical activity should be emphasized by having an individualized counselling based on their risk factors.

PP74

Workshop on familial hypercholesterolaemia for primary care physicians

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Introduction: Familial hypercholesterolaemia (FH) is the most common autosomal dominant disorder. If left untreated, FH can cause premature cardiovascular death. Despite this, FH is underdiagnosed worldwide, including Malaysia. Primary care physicians (PCP) should take more active role in detection and management of FH. However, one of the main hindrance for identification of FH is the

lack of awareness and knowledge among PCP. Therefore, this workshop is intended for PCP in Faculty of Medicine, Universiti Teknologi MARA (UiTM) to address this issue.

Methods: This interactive workshop was held on 23rd January 2019 in Faculty of Medicine, UiTM by the world leading experts in the field. The workshop started with introduction and screening of FH in the primary care by Prof Dr Nadeem Qureshi. This was followed by hands-on session on systematic case finding of FH in primary care by Dr Hasidah Abdul Hamid. Prof Datin Dr Hapizah Mohd Nawawi shared her expertise in management of FH in Lipid Specialist Clinic. The workshop ended with question and answer and discussion session. The PCP were requested to fill up a feedback form to evaluate the workshop.

Results: 25 PCP (consisting of Family Medicine Specialists and Postgraduate trainees in Masters of Family Medicine) attended the workshop. The feedback for the workshop has generally been positive. Most PCP find the key learning point is the detection of FH using different clinical diagnostic criteria and improved their confidence of detecting FH in their practice. All of them responded that the knowledge and skills gained from the workshop will be useful in their practice. The PCP identified that further training and local guideline for FH will be beneficial. All participants were awarded with Certificate of Participation, NSR and CPD points for attending the workshop.

Conclusion: The workshop managed to improve PCP's awareness and knowledge on detection of FH. There is a need for further training and conception of a local guideline for FH in Malaysia.

PP75

School-based obesity program: sharing experience

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Introduction: Childhood obesity is increasing trend in Malaysia. From NHMS 2017 only 14% of adolescent with obese correctly perceived their weight to be obese. It shows lack of knowledge and awareness of the problem among those affected. As health-seeking behaviour of teenagers going to healthcare facilities to get treatment is poor; a school-based obesity program should help to combat this problem. The objective of this program is to create awareness on obesity, educating lifestyle modification and to reduce weight by 5% in 6 months.

Methods: 30 students from Standard 4 with BMI more than 24 (based on WHO growth chart) from a primary school in Cheras were invited to participate in a 6-sessions weight reduction program. It includes behaviour modification, nutrition education, and exercise management. One session also dedicated to assess and deliver education to their parents via questionnaire and lectures respectively. Their weight will be monitored monthly for 6 months 30 students from Standard 4 with BMI more than 24 (based on WHO growth chart) from a primary school in Cheras were invited to participate in a 6-sessions weight reduction program. It includes behaviour modification, nutrition education, and exercise management.

One session also dedicated to assess and deliver education to their parents via questionnaire and lectures respectively. Their weight will be monitored monthly for 6 months

Results: One participant achieved loss of 5% body weight, but all participants have shown great interest and benefited from the program in term of knowledge of nutrition, choosing healthier option and increase physical activity. Post-test for parents also revealed improvement. Challenges faced was to get full participation from parents and teachers as they're restricted to their life schedule and lifestyle and the program were also interrupted by a long school holiday period.

Conclusion: Although effectiveness of the weight reduction program cannot be determined, it demonstrates the feasibility of conducting such a program in a school setting.

PP76

Intervention programme for obesity in adolescence: a pilot study

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Introduction: Adolescence obesity is a public health concern in most developed and developing countries as it is associated with multiple health morbidities and mortality. The objective of this study is to assess the effectiveness of a school based intervention programme to facilitate weight reduction among adolescence aged 10-12 years in the district of Bentong.

Methods: This prospective interventional study was conducted in a primary school from February to June 2019. Students aged 10-12 years with BMI ≥ 25 kg/m² attended a structured health education programme. Serial anthropometric measurement and data regarding pre and post intervention physical activities using Physical Activity Questionnaire for Children-Malay Version (PAQC-M) were obtained.

Result: The result of the paired sample t-test was significant for weight, BMI and physical activity with the significance level being $p = 0.02$, 0.01 and 0.01 respectively, indicating there is an increase in weight from 64.37 kg to 66.86kg and BMI from 29.74kg/m² to 30.86kg/m². PAQC-M score improved from 2.44 to 2.87 indicating physical activities among students increased following the intervention programme.

Conclusion: This programme managed to increase physical activities amongst students. However, there was an unexpected increase in weight and BMI, probably due to the festive celebration which has disrupted their diet and physical activity. As evidenced by only 5 students managed to reduce weight consistently till June versus 10 students in May; prior Fasting and Raya celebration. This study should be replicated for a longer duration and include a larger number of students. Parents should be included to supervise their children at home to have a positive outcome.

PP77

The impact of mental health in children and adolescents post chemical exposure at Kim Kim River, Johor

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Introduction: The objective of this study is to evaluate the impact of mental health among the children and adolescents after being exposed in the incident of chemical spillage at Kim Kim River in Johor.

Methods: 171 students (72 from a primary school and 99 from a secondary school) received self-administered questionnaires by using the Child Mood and Feelings Questionnaire (MFQ-C) 2 weeks after the incident.

Result: The mean age (SD) of the students was 13.3 (2.6). There were 79.5% (n=136) of the students experienced an unpleasant smell in the school compound, and 62.6% (n=107) at home. Almost all (98.9%, n=169) of the students had health symptoms within a week after the exposure. Majority of those with health symptoms had dizziness (80.1%, n=137), headache (71.9%, n=123), and chest tightness (56.7%, n=97). About 95.9% (n=162) of the students with health symptoms visited health care facilities; 77, 30, and 25 students went to government hospitals, disaster centre, and government clinics, respectively. Nearly half of them (49.1%, n=83) with health symptoms admitted to hospital and the longest hospital stay was up to 12 days. The mean score (SD) of the MFQ-C among the students was 22.75 (12.14). Thirty-eight percent (n=65) of the students scored 27 and above in the MFQ-C, which may indicate the presence of depression in the respondent. The highest number of students with the risk of depression was among Malay female in secondary school.

Conclusion: In conclusion, the exposure of chemical fumes was not only affected the physical symptoms but may also contribute to a mental health disorder.

PP78

Underestimation of cardiovascular risk amongst peri and post-menopausal women attending KRK, HUSM

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Introduction: Cardiovascular diseases are among the major cause of mortality and morbidity worldwide including Malaysia. Peri and post-menopausal women are among the high risk group to develop cardiovascular diseases, yet most of this group of women underestimate their cardiovascular risk. This might lead to reduce health concern and non-optimize therapeutic lifestyle changes. This study was conducted to determine prevalence of underestimation of cardiovascular risk among peri-menopausal and post-menopausal women attending Klinik Rawatan Keluarga (KRK) HUSM and its associated factors.

Methods: A cross sectional study was performed on 292 peri and post- menopausal women age 48 years and above who attend KRK, in between May till August 2015. Case report

form used to assess socio-demographic data and translated (Malay) version of Perception of Risk of Heart Disease Scale (PRHDS) was used to assess participants' perception on cardiovascular risk. Anthropometry measurement including blood pressure, height, weight and waist circumference taken. Fasting lipid profile and fasting blood sugar were also taken. Actual cardiovascular risk was assessed using Framingham Risk Score (FRS) 2008. Data was analysed using SPSS version 22.0

Results: A total of 265 patients responded, giving a response rate of 90.8%. Mean age of the participants were 57.4 ± 7.2 and majority (96.6%) are Malay. Almost half of the participants (48.7%) underestimate their cardiovascular risk. Analysis showed that diabetes mellitus, increasing age and higher systolic blood pressure were associated with underestimation of cardiovascular risk.

Conclusion: With the significant proportion of participants who underestimate their risk, it would be a pressing need for primary care practitioners to adequately address the cardiovascular risk issue during the community intervention as well as during consultation

PP79

Strategies on improving patients' diabetic control at Klinik Kesihatan Bandar Kuantan

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Introduction: Klinik Kesihatan Bandar Kuantan's diabetic NDR has been started the time the institution was established in year 2012. Since its inception, the annual diabetic performance has been dismal with constantly achieving below 20%. Following change of team organisation, this suboptimal performance was objectively looked at by the diabetic team headed by the FMS. Both results from the KK as well as JKN Pahang SIQ analyses were reviewed and analysed. The reasons for not achieving this target were grouped under two broad categories which involves the multidiscipline approach.

Result: Overall performance had improved. Audits were done looking at any areas of substandard management and put forward for further improvement/rectification in the subsequent year with sustained effort and continuous improvement, with focus on easily hit target, KKBK has succeeded in achieving the set target of >30% of patients achieving <6.5% with an achieved 32% in 2018

Conclusion: MOH set target <6.5% as a measure of control for diabetic patients is a realistic and achievable target. It acts as a tool for improving clinical care for diabetic patients and other NCDs. The set target and the challenges it poses, necessitate optimal networking and teamwork between all points of care. Given the experience above, and how such problems were analysed and addressed, specific plan of actions can be introduced and implemented with similar if not better outcome for all Klinik Kesihatan nationwide. It is also hoped that the NDR can come up with another set target of HbA1C between 7-8% as a measure of good control among patient with advancing age and with co-morbid conditions of which HbA1C of <6.5% is deemed putting the patient at risk of

severe hypoglycaemia. Such targets will also be in line with currently updated international targets.

PP80

Galactorrhea in a toddler – A rare report

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Introduction: Milk discharge from neonatal breast is commonly occurs bilaterally and majority of the cases are benign in nature. It is usually requiring conservative management and will resolved by time. It is typically occurring within one month of age in which late onset in toddlers age group is indeed rare in which abnormal causes need to be rule out. We would like to report a case of persistent unilateral galactorrhoea in an 18 months old child without any specific causes. This case highlights the presence of physiological milk discharge can still occur even at age beyond one-year-old despite its absence in the initial months of life. Principle of observation at primary care is still adequate in managing such cases. This case indeed is among the most late onset age group presented with physiological galactorrhoea that had ever been reported.

Conclusion: This case proved that Witch's milk is still possible in older age group of children. It is still safe to keep observe the child at primary care clinic provided there is no alarming symptoms or signs noticed during the follow up. Further study is needed to understand the underlying physiological cause that had leads towards such a rare presentation of a physiological galactorrhea.

PP81

Prostate Carcinoma Detected in Primary Care: A Case Presentation

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Introduction: Prostate cancer should be suspected in men over 50 years old presenting with lower urinary tract symptoms (LUTS), visible haematuria or erectile dysfunction (with consideration of underlying comorbid). LUTS are also a common presenting symptom of benign conditions affecting the prostate, such as benign prostatic hyperplasia (BPH) and prostatitis, creating a diagnostic challenge. There is no strong evidence of association between the severity of LUTS and the likelihood of prostate cancer or the stage at diagnosis. Here besides LUTS, we are reporting a patient whom often visited us with urinary tract infection (UTI) and has associated with lower abdominal pain. Often, he was treated as UTI and discharged. This patient again visited with similar complaints, abdominal distention associated with fullness and pain. This time clinically noted that he had distended bladder and prostatomegaly, which was irregular, hard and fixed to the

mucosa, giving rise to clinical TNM staging of cT4 prostate mass with bladder outlet obstruction (BOO). A Foley's catheter was introduced to relieve the symptoms. The urine drained was foul smelling, turbid on inspection and FEME depicted traces of blood, Nitrate positive, and Leukocytes were 2+. Patient was commenced on cefuroxime 250mg BD and Mist Potassium Citrate. Patient was then subjected CT thorax, abdomen and pelvis; noted that he had T4 prostate tumour infiltrating the trigone of the bladder with obstructive uropathy picture as well. He was then referred to the urologist for further intervention

Conclusion: Our aim here is to emphasize, that in males with frequent UTI symptoms associated with LUTS and BOO, a meticulous abdominal examination should be done and a DRE (digital rectal examination) is essential. Plus, in males whom are around 50 years old, Prostate CA should be a differential diagnosis.

PP82

Applying A Patient-Centred Care And Personalised Medicine Approach In Managing Sexual Health In Family Practice

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Introduction: Health care delivery has become challenging when dealing with private needs like sexual health which requires a positive and respectful approach. Probably the biggest challenges involve clinical syndromes that impair sexual functioning such as sexual aversion and dysfunctional sexual arousal where patient-centred care can be practised with personalised medicine.

Methods: Patient-centred care was initiated in managing the sexual health debacles of the patient. A physician would first interview the patient, taking into account thoroughly their medical history and personal needs. Following which, treatments were customised accordingly, and personalised prescriptions were then written and sent to a compounding pharmacy to custom make medications for optimal outcomes. For example, a male patient with erectile dysfunction and rapid ejaculation can be provided with an oral medication containing a PDE-5 inhibitor which has fewer side effects, combined with dapoxetine, a short acting SSRI. Similarly, women with dyspareunia and vulvodynia due to reduced vasocongestion of the vulvae were treated with a PDE-5 inhibitor to provide vasocongestion and improve vaginal atrophy. The doses can then be titrated based on patient feedback.

Conclusion: Managing sexual health in family practice by applying patient-centred and personalised medicine approach appears satisfactory and beneficial to patient's sexual health needs. Physicians working hand in hand with a reputable compounding pharmacy found satisfaction and feasibility in getting the right combination of medications for patients' optimal wellbeing. Patients are actively involved throughout the entire process, and what is most crucial, is, a physician who can provide the best advice and personalised treatment regime.

