Abstracts of the Malaysian Medics International (MMI) Research Symposium 2017

01. Stewardship Opportunities in the Treatment of Urinary Tract Infection Using Oral Fosfomycin

Aqtab Mazhar Alias, Khoo Shu Jiun, Sau Irzat Che Yusoff, Helmi Sulaiman
University of Malaya

Introduction: Fosfomycin (FM) was first introduced following the fermentation of Streptomyces strain in 1969. Following its unique position for uncomplicated urinary tract infection (UTI), its appropriate use is of paramount importance to mitigate the emergence of resistance. We aim to look at the current practice of prescription in our large outpatient clinic. **Objectives:** To look at the FM prescribing pattern by the primary care physicians and degree of conformance to the available guidelines. **Methods:** This is a retrospective study carried from April 2015 to May 2016 in primary care clinics affiliated to University Malaya Medical Centre, Malaysia. We recruited any patients above 12 years old who received single dose oral FM. We divided the patients into guideline compliant (GC) and non-guideline compliant (NGC) groups based on available consensus. **Results:** 100 patients were recruited from a list of 139. The cohort was predominantly female (81, 81%). More than half (57, 57%) of our cohort had at least one comorbidity and both hypertension and diabetes predominate (40 and 35 respectively). The reasons for the non-GC were due to absence of symptoms (18), acute pyelonephritis (13), inappropriate investigations (urine culture (21) and ultrasound of kidney (4)) and complicated UTI(32). Urine analysis was the preferred test performed (87). 44 patients (44, 44%) had been followed up post fosfomycin prescription and 75% were reported to have clinical cure. Of note FM susceptibility testing was not available in our centre. **Conclusion:** Based on this data, we encourage continuous education to the primary care physicians, as the misuse of FM is still present as well as additional and unnecessary investigations illustrated by the data above. The use of FM for asymptomatic bacteriuria and complicated UTI is concerning. In addition, the lack of susceptibility data on FM against the local contemporary urinary isolates should be addressed.

02. Possible Risk Factors to Autism Spectrum Disorder

Chan Ti Ling, Takoyashi Ubuka, Ishwar S Parhar
Monash University

Introduction: Autism spectrum disorder (ASD) is a neurodevelopmental disorder that is described as having core deficits in two major domains: (1) social communication and social interaction, (2) behaviour, interests and activities. It is estimated to affect approximately 1% of the global human population and males are four times more commonly affected than females. To date, no promising aetiology has been found for underpinning this peculiar disorder. **Objective:** The objective of this study is to explore the current concept of possible risk factors predisposing human to ASD. **Methods:** We conducted a literature review of the existing literatures, examining the possible risk factors in developing ASD. We searched a myriad of electronic bibliographic databases (MEDLINE, PubMed, EMBASE, Google Scholar) and reference lists of included articles. From 2091 citations, 131 articles met our inclusion criteria.
Results Descriptive analyses of this clinically heterogenous disorder suggest multifactorial aetiology. Genetic, environmental and neurobiological factors are implicated in the manifestation of complex phenotypic variations. Firstly, the concordance rate (36-96%) in monozygotix (MZ) twins portrays a genetically-mediated pathogenesis but in fact it never achieves 100%, supporting a gene-environement interplay. Willfors et al. conducted a study on MZ twins to minimise the confounding impacts of genetic factors and endorse the phenotypic variation of ASD is secondary to environmental factors. They reported that early medical events are associated with clinical ASD phenotypes. In addition, dysfunctional amygdala was observed among individuals with ASD and four significant findings can be concluded from these neuropathological studies of amygdala in ASD: (1) enlarged amygdala in early childhood, (2) does not undergo age-related growth, (3) reduced neuronal number and (4) no activational signals in fMRI upon test of judgement. **Conclusion:** In a nutshell, despite the growing body of evidence discovered many possible risk factors contributing to ASD, the underlying aetiology of ASD remains unknown.

03. Knowledge, Attitude and Perceived Barriers towards Medical Research among Undergraduate Medical and Dentistry Students

Htoo Htoo Kyaw Soe, Chew Way Jin
Melaka Manipal Medical College

Introduction: Research is crucial to the understanding of problems which affect the health of individuals, communities and health systems. Training for research skills in early time in medical profession is associated with continued professional academic work. This study aims to assess knowledge, attitude and identify perceived barriers towards medical research among undergraduate medical and dentistry students. **Methods:** A cross-sectional study was conducted in January 2017 at Melaka-Manipal Medical College. A total of 295 students consented to participate. Data were collected using self-administered, structured questionnaire which included socio-demographic characteristics, knowledge, attitude and perceived barrier. Data were analysed using SPSS version 12. Pearson correlation and multiple linear regression were used for data analysis. **Results:** 62.7% of the students had moderate and 19.6% had good knowledge while 17.8% had limited knowledge. Similarly 67.6% of students had moderate, 16.7% had good attitude while 15.6% had need to improve attitude. The mean total score for knowledge was 12.14±2.73 (maximum possible score 20) and attitude was 74.05±8.68 (maximum possible score 105). Regarding barriers to participation in research, 79.9% perceived lack of time, 72% perceived lack of proper funding, 63.6% perceived lack of facilities and 55.8% agreed lack of rewarding and/or motivation. Multiple linear regression shows there were significant association between age, ethnicity, scholarship status and knowledge. There were also significant association between knowledge, attitude and barrier. **Conclusion:** In Melaka-Manipal Medical College, research is compulsory; however, students should be encouraged and provided opportunities and support. Students should have more sessions for improving research knowledge and skills especially preparation for conferences and scientific writing.

04. Strategies adopted by the veterinary services & animal industry department which led to Sabah's rabies free status

Chrisender Devadason A/L Fraser, Chieng Dih Chuan, Nur Azimah binti Saboor Ali, Irwani binti Aminuddin, Izyan Irdina binti Ahmad Akmal, Tee Tian Ein, Prof. Madya Dr. Aqil Mohammad Daher
National Defence University Of Malaysia

Introduction: As of 2016, Sabah was declared to be free of rabies and other major zoonotic diseases by the Veterinary Services & Animal Industry Department. Such a declaration warranted further thought and study given the vast number of canines in it. **Methods:** Data was collected from the Veterinary Services & Animal Industry Department via an interview with the Head of the Epidemiology Department and staff members. Secondly, an observational survey was done on 50 members of the local populace with equal distribution amongst the urban and rural

areas. The data was edited and were entered in Statistical Package for the Social Sciences (SPSS) software for analysis. **Results:** Based on the data that we have collected and analyzed mostly there is a good sense of knowledge on Sabah's status of being a Rabies free state among the urban population (60%). Besides that, there is a good knowledge on the rabies disease itself among each individual population, with rural population (72%) and the urban population (60%). On the other hand, in terms of dog ownership the urban population mostly do not have any household pet dogs among them (96%), in stark contrast to among the rural population being the majority of several pet dogs (80%). The most significant factor contributing to the state's rabies free status was its zero index case scenario. A natural buffer zone; an existing forest bordering Sabah and Kalimantan, reduces contact and transference of the virus from Kalimantan. An Ordinance insures pets from high risk areas are banned but if intent still exists, a license be required. A quarantine period is determined and only after is the pet allowed in. **Conclusion:**
The findings of this study showcase measures of the Sabah Veterinary Services Department that ensured Rabies free status.

05. The Expression of Napsin A in the Differential Diagnosis of Primary Pulmonary Carcinoma

Khie Siong Hii, Aiman Bin Hasnizul, Bazilah Binti Che Ku Mat, Nurmunirah Binti Abu Bakar, Nur Afiqah Binti Azmi, Chandramaya SF, Muaatamarulain M, Azyani Y, Reena Rahayu Binti Md Zain
University Kebangsaan Malaysia

Introduction: Thyroid Transcription Factor-1 (TTF-1) has long been used as a diagnostic marker for pulmonary adenocarcinoma. Recent studies have shown a potential tumor marker, referred as Napsin A, which demonstrated to be equal or better in performance than TTF-1. **Objectives:** This study aimed to examine the expression of Napsin A in the differential diagnosis of primary pulmonary carcinoma and to determine the expression of Napsin A with TTF-1 in primary pulmonary adenocarcinoma and squamous cell carcinoma. **Methods:** A total of 51 cases consisted of 28 cases of primary pulmonary adenocarcinoma and 23 primary pulmonary squamous cell carcinomas were selected. Tissue microarrays using Napsin A as the primary antibody were constructed according to standard protocols. TTF-1 results were retrieved from archived histopathological reports of respective cases. **Results:** A total of 24 cases of primary pulmonary adenocarcinoma expressed positivity to Napsin A (sensitivity 89%) while 24 cases of primary pulmonary adenocarcinoma expressed positivity to TTF-1 (sensitivity 89%). 25 out of 27 cases of primary pulmonary adenocarcinoma expressed either Napsin A or TTF-1 or both. All primary pulmonary squamous cell carcinoma expressed negativity to both Napsin A and TTF-1. Statistically, there was an excellent agreement between Napsin A and TTF-1 (Cohen's kappa 0.93), indicating both tests were very similar to each other. However, the superiority of Napsin A over TTF-1, as claimed, cloud not be demonstrated. **Conclusion:** Both Napsin A and TTF-1 are equally effective in diagnosing primary pulmonary adenocarcinoma and ruling out primary pulmonary squamous cell carcinoma.

Keywords: Napsin A; TTF-1; Pulmonary Carcinoma

06. To Evaluate Dietary Intake and Physical Activities in Relation to BMI of Children in Rural Area

Siti Illyani Nadzirah binti Muhammad Nozili, Aina Nabila binti Azhar, Nur Nabila Bt Mohd Alias, Siti Hajar binti Abdul Halim, Mala A. Manickam, Sabiha Pit, Adlina Suleiman, Muhammad Abu Bakar
National Defense University of Malaysia

Introduction: The importance of proper nutrition and physical activity in reducing rates of disease and death from chronic diseases has been well established. The practice is even more pronounced among children as overweight children are at high risk of becoming overweight adolescents and adults, placing them at risk of developing chronic diseases such as heart disease and diabetes later in life. This study assessed the association of dietary intake and physical activities with BMI outcomes. **Method:** A cross- sectional survey using self-administered questionnaire was carried out within 73 families. The questionnaire measured meal pattern, diet intake from three major food groups and the involvement of physical activity. The BMI for age percentile were calculated using CDC growth charts. Body Mass Index (BMI) .85th and 95th percentile were defined as overweight and obesity. **Results:** The meal patterns revealed that lunch and dinner was taken regularly but not breakfast. The pattern featured an imbalance dietary intake; increasing consumption of carbohydrates and fibers and decreasing consumption of proteins and nutritional drinks in their daily meal intake. Equally, there was a positive correlation between breakfast and BMI, $r = .354$, $p = < .001$, with a $R2 = .125$; similarly, between lunch and physical activity, $r = .274$, $p = < .05$, with a $R2 = .075$. However, there was a negative correlation between physical activity and BMI, $r = .272$, $p = < .05$, with a $R2 = .074$. **Conclusion:** Although most of the children had normal weight and were physically active, the children did not have balanced meal and it can be assumed that the parents were ignorant of the nutritional contents or calorie values of meals served. Furthermore, the dietary intake contrasts among urbanized children, linking to socio-economic differences as characteristic of a nutrition deficit situation. Although these children are not at a higher risk of chronic diseases, they might suffer negative health consequences from malnutrition.

Keywords: Nutrition, BMI, Children, Rural

07. Antibiotic prescribing patterns among paediatric patients in a Secondary Care Hospital

Jagdish Kaur Mangat, Sobana Thanabalan, Sherene Sajani Samuel, Jeremiah Rajiv Sambanthan, Ganesh Shenoy K
Melaka Manipal Medical College

Introduction: Antibiotics are the key drugs for treatment of infections and are commonly prescribed drugs in Paediatrics department. This study was intended to study the prescribing pattern and the average number of antibiotics prescribed per encounter. **Methods:** A hospital based retrospective study was conducted from June-August 2015 at the Medical Records Department, DR TMA Pai Hospital, Udupi, Karnataka, India. 110 files of pediatric age group were collected by consecutive sampling was and 94 files were included in the study. Sociodemographic data, diagnosis, dosage form, drug details, dose frequency, prescribed antibiotics and their prescribing patterns were recorded. Epi Info was used to analyze the data and descriptive analysis was done. **Results:** Out of 94 case records, 53 (56%) belonged to male patients and 41 (44%) belonged to female patients. The average number of antibiotics per encounter was 1.13 (±0.40). Amoxicillin (31.13 %) was the most frequently prescribed antibiotics followed by combination of Amoxicillin and Clavulanic acid (28.3 %). The preferred route of administration was oral route (92 %) and 94% of the antibiotics prescribed were in the WHO essential drug list. **Conclusion:** Prescription patterns and usage of antibiotics in this study was appropriate. The most common infection was respiratory tract infection. The treatment guidelines for common conditions can be formulated. Also, efforts must be made to encourage prescribing by generic names.

08. Effect of vitamin D levels on cardiovascular outcomes in inflammatory arthritis and systemic autoimmune diseases – A systematic review

Joshua Ling[1], Marieke ter Wee[2,3], Hennie Raterman[2]
[1]Newcastle University Medicine Malaysia, Johor Bahru, Malaysia, [2]Amsterdam Rheumatology and immunology centre, location VU University medical center, Amsterdam, The Netherlands, [3]VU University medical center, department of Epidemiology and Biostatistics, Amsterdam, The Netherlands

Introduction: In recent years, vitamin D deficiency has been linked to disease activity and pathogenesis of systemic autoimmune diseases (SAD) like systemic lupus erythematosus (SLE) and inflammatory arthritis (IA). IA and SAD as also associated to an

elevated cardiovascular burden. While vitamin D deficiency augmented the risk for cardiovascular diseases (CVD) in the general population, a systematic review was performed to determine whether it contributes to an increased cardiovascular morbidity in patients with IA and SAD. **Methods:** A literature search was performed in PubMed/MEDLINE and EMBASE to identify all articles that assessed the association of vitamin D on CVD risk factors in patients with IA (rheumatoid arthritis (RA), psoriatic arthritis (PsA), ankylosing spondylitis) and SAD (SLE, Behcet's disease, vasculitis, Sjogren syndrome, systemic sclerosis). Eligible studies were assessed for quality and risk of bias according to the Cochrane Handbook. **Results:** 3273 abstracts were identified. After screening, selection and quality assessment, 16 studies were included (6 case-control and 10 cohort studies), which described only RA and SLE, except for one study which focused on PsA. In RA patients (n = 812) vitamin D deficiency was associated with presence of (components of) metabolic syndrome in RA, especially dyslipidemia and obesity. No studies with prospective design in RA assessed CVD risk in relation to vitamin D. In SLE patients (n = 1850) the only prospective study observed no association between vitamin D deficiency and CVD, although associations with dyslipidemia and obesity were found in some studies. **Conclusion:** No clear association between vitamin D deficiency and CVD was found in patients with RA and SLE, probably due to large heterogeneity in terms of sample sizes, designs, analyses and outcome measures. As conclusions were mainly drawn on cross-sectional data, more prospective studies are needed to assess if vitamin D levels have an effect on cardiovascular outcomes.

09. **The roles of men in family planning – a study of married men at UKM primary care clinic**
Joshua Ling En Sheng, Dr. Tong Seng Fah
[1.]Newcastle University Medicine Malaysia, Johor Bahru, Malaysia
[2.]Department of Family Medicine, Universiti Kebangsaan Malaysia

Introduction: Traditionally, family planning initiatives were concentrated on women despite it being a family matter. As family dynamics evolved over the years, fathers' involvement in family planning is crucial in enhancing the family well-being. **Objective:** This study aimed to identify the role played by men in family planning activities and their association of socio-economic characteristics with these roles. **Methods:** This was a cross-sectional study carried out in a university primary care clinic. All married male attendees to the clinic, aged 50 years and below, were approached to answer a set of self-administered questionnaires, asking for their involvement in family planning practices. The data were analysed using descriptive and inferential statistics.
Results – There were 167 participants in the study. A high proportion of men participated in the discussions regarding previous pregnancies (60.42%), future child planning (89.76%) and desired family size (89.76%). However, the discussions on the usage of family planning methods (FPMs; 39.16%) were significantly low. Socio-economic factors associated with higher likelihood of men discussing family planning activities were older age (p < 0.0), higher education level (p = 0.010), higher monthly income (p < 0.001) and longer marriage years (p = 0.0049). **Conclusions:** The level of participation of men varied in the discussions of four family planning activities. The roles taken by men in family planning were associated with older age and higher socio-economic class. Majority of men needs to be encouraged to play a more active role in the discussion of FPMs.

Keywords: Men's role, family planning, gender roles, masculinity

10. **The relationship between gender and personality traits: A cross-sectional study**
Khor Khai Seong, Sharon Priya a/p Kumaresen, Dikshya a/p Pakarisamy, Nur Atiqah Affila binti Othman, Joyce Ng Jia Yi, Dr Htoo Htoo Kyaw Soe
Melaka Manipal Medical College

Introduction: Personality is important as it is defined as the quality or state of being a person. Due to limitations, little is known about how gender take on development of personality traits of a person. Thus we aimed to determine the most dominant and the least dominant personality trait in both genders. **Methods:** This cross sectional study was carried out in MMMC in January 2017. 250 subjects participated. We used structured self-administered questionnaires which includes sociodemographic characteristics andpersonality by DISC scale;'D' measures a direct, dominant disposition, 'I'measures an interactive, influencing disposition, 'S' measures an accommodating, steady disposition, and 'C'measures a private, conscientious disposition. The most opted response among 4 optionsare interpreted as their domain trait. We used Epi-info software and Chi-square and unpaired-T-test were calculated. **Results:** A total of 250 students participated of which104 were males and 146 were females. Males have personality 'C-conscientiousness'(22%) and female have personality 'S-steady' (24%) as their dominant trait, on the other hand males have personality 'I-influencer' (17%) and personality 'D-dominant'(24%) for female as their least dominant trait. Female are 2.2 times more likely to have personality 'steady' as a main domain and male are 1.86 times more likely to have personality 'conscientiousness' as their main domain. **Conclusion:** The most Prevalence personality type are 'steady' in females and 'conscientiousness' in males. Usually, every individual will have a blend of all 4 types of personality. Gaining a better understanding of oneself is the first step to become a better person.

11. **Effect of oral supplementation of Liv. 52 and Docosahexanoic Acid (DHA) alone and in combination against carbon tetrachloride induced hepatotoxicity in rats**
Ong Tze Ern, Yong Gin Yen, Aishuryia Kanasin, Thivyashini Muthaiah, Umashangari Sangga Ratnam, Shakta Mani Satyam
Melaka Manipal Medical College

Introduction: Previous literature shows that antioxidants prevent the toxic effects of carbon tetrachloride to liver. In the advancement of modern medicine, the use of herbal and natural supplementation against liver disorders has become popular. Liv-52 tablet which is a polyherbal formulation exhibits as a potent liver protective agent against chemically induced hepatotoxicity. Besides, Docosahexanoic Acid was proved to have signi cant value in protection against hepatotoxicity. Thus, this study was conducted to investigate the effects of these two particular drugs alone and in combination against liver damage. **Objective:** The present study was undertaken to investigate the effect of oral supplementation of Liv. 52 and Docosahexanoic Acid alone and in combination against carbon tetrachloride induced hepatic injury in Wistar rats. **Methods:** Hepatoprotective activities of Liv. 52 and Docosahexanoic Acid alone and in combination at two different doses (225 mg/kg, 450 mg/kg and 300 mg/kg, 600 mg/kg respectively) were evaluated in carbon tetrachloride (1 ml/kg) induced hepatotoxic rats. The extent of carbon tetrachloride induced hepatotoxicity was studied by assessing biochemical parameters alanine transaminase, aspartate transaminase and alkaline phosphatase in Wistar rats. **Results:** Oral administration of Liv. 52 and DHA alone and in combination for 7 days resulted in a signi cant reduction in serum alanine transaminase, aspartate transaminase and alkaline phosphatase levels compared to carbon tetrachloride intoxicated control rats. (p<0.001). **Conclusion:** Liv. 52 and DHA alone and in combination was found to ameliorate the hepatic injury induced by carbon tetrachloride in Wistar rats. Our study opens the perspective for further mechanistic studies.

12. **Effect of Fear on Memory Among Medical Students In Melaka, Malaysia; A Randomized Controlled Trial Study**
Quah Swee Teng, Adinegara Bin Lufti Abas
Melaka Manipal Medical College

Introduction: Memory refers to the brain system that provides temporary storage and manipulation of information necessary for complex cognitive tasks. Emotion affects memory in two aspects; a) stress hormone such as cortisol that interacts with amygdala; and b) amygdala-altering activities in other parts of the brain. Amygdala specialises in process of emotion. It is crucial for the

acquisition and expression of fear conditioning. **Objective:** To determine if fear has an effect on someone's memory and the extent of its effect; and to study fear reduction methods. **Methods:** A randomized controlled trial was performed. 38 Melaka Manipal Medical College students were divided equally into experimental and controlled groups. Their perception of fear was assessed using a standardized questionnaire prior to the experiment. Subjects were shown 24 images at two-second intervals. Then, experimental group was shown a 3-minute horror video and controlled group was shown a 3-minute cartoon video. Following that, subjects were told to recall as many images as they can remember within three minutes. Data obtained from questionnaires were tabulated using Microsoft Excel and analysed using Epi Info Ver. 7 Software. **Results:** Perception of fear of both groups fall under the category of "Toxic memory", indicating that memory of trauma was moderately sensory, fragmented, and moderately verbally accessible. There was a significant difference in total number of images recalled between both groups, whereby controlled and experimental groups managed to recall 285 and 241 images respectively. Controlled group performed better compared to experimental with mean difference of 2.3158 images and SD difference of 0.0608. There was a significant difference of ability to recall memory in relation to perception of fear memory with non toxic (Mean: 15.000, SD: 2.4495) being the best, followed by toxic (Mean: 13.9032, SD: 3.7626) and the least very toxic (Mean: 11.6667, SD: 3.5119). **Conclusion:** Fear increases stress levels, which can impair a person's learning performance. Fear reduction methods include conservative treatment such as leisure activities, gradual sensitisation to fear; and medical treatment such as psychotherapy.

13. **Association of Insomnia and Circadian rhythm disorder on Mental Health among Medical Students of Melaka Manipal Medical College (MMMC), Muar Campus, A Cross Sectional Analytical Study**
Stephanie Chang Yen Li, Ravinraj Singh, Felina Innaci Dass, Nabilah Ismah Binti Muhamad Rapidi, Muhammad Hafizuddin bin Ahmad Razid
Melaka Manipal Medical College

Introduction: We aimed to study the effect of insomnia and circadian rhythm on mental well-being of medical students. Due to the stress and demands of studying and sitting for examinations, students tend to have higher probability of having insomnia and disorders of circadian rhythm which can lead to mental disorders. This study was conducted to help in identifying the prevalence of these problems among medical students. **Methods:** This was a cross-sectional analytical study conducted on 240 medical students based in Melaka Manipal Medical College (Muar Campus). The participants were selected via probability sampling. We utilized Self Reporting Questionnaires (SRQ20) which was designed to screen for psychiatric disturbances. These questionnaires were distributed among the medical undergraduates measuring factors of insomnia and circadian rhythm on mental health. **Results:** We noted correlation between insomnia and mental health (correlation coefficient value r=0.346 ; P value < 0.001). We further observed 13.3% out of 240 students were positive for circadian rhythm disorder. In addition 26.5% of these students were associated with mental health disorder based on SRQ20. **Conclusion:** We observed high prevalence of insomnia and circadian rhythm disorder among medical undergraduates. We further noted correlation of insomnia with mental health. Counselling by university administrators on strategies in reducing insomnia such as optimization of sleep may assist in reducing prevalence of mental health among students.

14. **Comparative Study of Clinical Outcomes between Open Gastrectomy and Laparoscopic Gastrectomy for Gastric Cancer**
Tan See Teng, Raymond Yii Shi Liang, Lau Peng Choong
University of Malaya

Introduction: Laparoscopic gastrectomy (LG) has gaining acceptance by surgeons as an alternative surgical treatment for gastric cancer in recent years. The purpose of the study is to evaluate the clinical advantages of LG as compared to open gastrectomy (OG) in patients with histologically proven gastric adenocarcinoma. **Methods:** We retrospectively assessed the clinical outcomes of 89 patients who underwent gastrectomy between January 2008 to October 2016. Clinical outcomes were studied and compared between the groups of LG and OG. Kaplan-Meier curve was plot to compare survival. **Results:** The mean age of patients with gastric adenocarcinoma was 62.8 years old. (±12.3years). The multiethnic cohort is consisting of Chinese (n = 55, 61.8%), Indian (n = 21, 23.6%) and Malay (n= 11, 12.4%). The operative time was significantly longer for LG (458.3±20.9 minutes) vs OG (322.8±22.3 minutes).
The length of hospital stays (9.5 days after OG vs 10 days after LAPG, p=0.59) and the amount of intra-operative blood loss (p=0.46) were similar in both groups. Major complications (Clavien III-V) were observed in OG group (N=8, 20.5%) as compared to LG (N=2, 7.7%). The median follow-up for OG group was 86months and LG was 41 months (p=0.91). The 1,3,5-year survival rate for open gastrectomy were 67.1%, 36.8% and 27.6%% as compared to laparoscopic arm of 60.1%, 10.7% and 11.1% (p=0.56). Median disease free survival time was 98 months for OG and 44 months for LG (p=0.71). **Conclusions:** This study shows that our surgeon in laparoscopic gastrectomy can safely master the learning curve of laparoscopic technique.

15. **Pancreatic Cancer in Malaysia: Epidemiology and Outcome of Pancreatic Cancers in a Multiracial Asian Population**
Peng Soon Koh, See Teng Tan, Jun Kit Koong, Kamarajan Ramayah and Boon Koon Yoong
University of Malaya

Introduction: Pancreatic cancer is associated with high mortality and poor survival outcomes. Most available data on pancreatic cancer are from Western countries and Asian data remained scarce. The aim of this study is to determine the epidemiology, demographics and outcomes of patients with pancreatic cancer in Malaysia, a multiracial population country comprising of three major Asian ethnicities. **Methods:** All pancreatic cancers from January 2011 to December 2014 in our center were reviewed. Patients demographics, tumor status and survival were evaluated. Kaplan-Meier method was performed for survival analysis. **Results:** 123 patients (male: female= 61:62, median age: 65 years) were accounted for. Chinese (60.1%) were the commonest ethnic group, followed by Malays (15.5%) and Indians (6.8%). 43.9% of our patients had stage 4 pancreatic cancer at presentation with the commonest site reported at the head and uncinate process (50.7%). Only 19.6% of patients were resectable at presentation (24 patients had pancreatoduodenectomy; 4 patients had distal pancreatectomy). Median follow-up for resectable group was 356 months and unresectable group was 89 months. Median survival was 8.9 months for resectable group and 3.7 months for unresectable group (p=0.13). Overall survival at 1-, 3- and 5-years were 40.8%, 8.2%, 8.2% for resectable group and 24.7%, 6.9%, 4.1% for unresectable arm respectively (p=0.152). **Conclusion:** The incidence of pancreatic cancer in Malaysia is not high. Its prognosis remained poor despite good perioperative outcome in a highly specialized tertiary center in spite of the low volume. Our finding also concurred and comparable to other studies found in literature.

16. **Accuracy of different types of thermometer in measuring body temperature**
Wong Woei Tung, Sobana Thanabalan, Aishuryia a/p Kanasin, Cezanne Kok Shu Yan, Kamal Hakim bin Kamarulzaman, Benedict Yu Yeh Siang
Melaka Manipal Medical College

Introduction: The measurement of body temperature plays a vital role in the determination of health and well-being. However, with recent development and use of various types of thermometry, the selection of the most reliable and accurate tools for the measurement of body temperature becomes highly disputed in the healthcare practices. The purpose of this study is to compare the

sensitivity and specificity of both commonly used digital thermometer and temperature sensing strip with the mercury thermometer as the "gold standard". Thus, through this study the most reliable and accurate types of thermometry can be recommended and instilled in the healthcare practices as the new "gold standard" for temperature measurements. **Objective:** To determine the specificity and sensitivity of digital and strip thermometer, compared to gold standard (mercury thermometer). **Methods:** A diagnostic study was carried out in January 2017 among volunteer students in Melaka-Manipal Medical College. 279 students have been chosen through consecutive sampling. A written informed consent was collected from each participant. The body temperature was measured using mercury, digital and strip thermometers. Epi-info was used for data analysis. Pearson correlation coefficient and Bland-Altman curve, Sensitivity, Specificity and Accuracy was calculated. **Results:** A total of 299 subjects consented to participate. There was significant fair correlation between mercury and digital axillary thermometers (r=0.38, Pvalue<0.001). Similarly, there was significant low correlation between mercury axillary and forehead strip thermometers (r=0.13, P value=0.021). Regards to cut-off 37°C, digital axillary thermometer had a sensitivity of 46.2%, specificity of 75.9% and accuracy of 65.2% while forehead strip thermometer had a sensitivity of 57.4%, specificity of 43.9% and accuracy of 48.8% compared to gold standard. **Conclusion:** Digital axillary thermometer is the most accurate and reliable tool for measuring temperature as compared to temperature sensing strip. When compared with mercury thermometer ("gold standard"), both shows rather similar accuracy but digital thermometer has most of the upper hand these days, as it is a more convenient tool to use especially in the clinical settings.

17. Effect of Lighting on Concentration of Medical Students: A Randomised Controlled Trial

Umar bin Mohd Ramzan, Yiqin Yang, Suniljeet Singh Sandhu, Aqilah Syafiqah binti Mahamad Yasri, Nur Syazzwanis binti Abdul Halim, Nadiahtul Izzati binti Mohd Dan
Melaka Manipal Medical College

Introduction: Concentration is the ability to give one's attention or thought to a single object or activity at a time and is an important element to facilitate the learning process. Lighting has been described as an agent in improving cognitive performance. The importance of lighting for performance in human is well established and many researchers have indicated that lighting can affect people's mood and alertness. These effects of lighting on human body make one wonder how lighting affects a student's concentration. This study was conducted to determine the effect of lighting on concentration in college students. **Methods:** A randomised controlled trial was conducted on medical students of Melaka-Manipal Medical College (Muar Campus). 50 students were randomly chosen and then assigned to intervention and control groups equally via randomisation. Participants of both groups were required to perform d2 Test of Attention and answer a structured questionnaire. The intervention group was placed in room with low luminosity while the control group was in a room with higher luminosity. Data were analysed using SPSS version 18. **Results:** 41 students participated in this study. There were significant differences between concentration scores obtained by the intervention group and the control group. The intervention group had a mean score of 526.9 for concentration performance, which was lower than that of the control group at 615.3. Other than that, the mean for error percentage of the intervention group was 0.10, whereas the control group had a lower mean of 0.03 for the same outcome. In general, the intervention group had weaker concentration and more errors made as compared to the control group. **Conclusion:** The results of this study highlight the positive effect that a higher lighting intensity has on concentration. Thus, it is recommended that educational institutes take into consideration the intensity of lighting as an important factor when setting up and designing classrooms in order to ensure that the concentration level of students is not negatively affected.

18. Isolation and genotyping of uropathogenic Escherichia coli

Akhram Timor Bin Ariffin, Yu Jia Cheng, Veeloshina Anbarasan, Kalaivaani P. Jeeva, G. Sreejith, Vinod Pallath
Melaka Manipal Medical College

Introduction: Urinary tract infection (UTI) are probably one of the most common bacterial infection, and also one of the most important causes of morbidity and mortality. This study will serve as a pilot work in generating the information on the distribution of the true pathogenic and commensal (colonizer) Escherichia coli in clinical cases. **Methods:** The study was performed using a triplex PCR method. Isolates were assigned to phylogenetic groups according to the method of Clermont et al. (2000). Using this method, the isolates were assigned to one of four groups (A, B1, B2 or D) based on their possession of two genes (chuA and yjaA) and a DNA fragment (TSPE4.C2), as determined by PCR. A total of 27 isolates were typed. The data was expressed as frequency distribution of the genotypes. **Results:** We had the highest frequency (48%) of B2 genotype and second highest frequency (26%) of D genotype, both shown to be of the pathogenic extra intestinal types. So a total of 74% were true pathogenic isolates. We had 6 isolates (22%) of A and one isolate of B1. One isolate of E. coli was untypable. **Conclusions:** Phylogenetic groups B2 and D being more prevalent than groups A and B1, is consistent with similar studies. B2 and D are also the most frequent among the isolates of extraintestional infections. The A and B1 were usually found as commensal types, but also reported to be isolated from extraintestinal sites of infections. Their presence among the UPEC isolates may suggest certain possibilities, which needs to be explored in future studies.