

OM-1

LIVER ENZYME ABNORMALITIES AND BLEEDING MORBIDITY IN DENGUE FEVER

Fariz Safhan MN, Lee YY, Abu Dzarr A

Department of Medicine, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Introduction: Dengue hemorrhagic fever (DHF) has shown an increasing presence in Malaysia. Liver function derangement is common in Dengue fever and it may predict bleeding outcome.

Objectives: To determine the association between liver derangements and DHF as well as liver derangement and bleeding outcome.

Patients and method: This is a cross-sectional study involving 144 patients with dengue virus infection (WHO criteria) recruited from October 2005 until March 2006 in Hospital Tengku Ampuan Afzan, Kuantan. The bleeding outcomes were grouped into “no bleeding”, “petechiae”, “minor bleeding” and “major bleeding”. The association between liver derangements and DHF was analysed by using independent t-test and multiple logistic regression. The association between liver derangement and bleeding outcome was analysed by using Kruskal-Wallis and Mann-Whitney tests.

Results: Mean patient's age was 31 ± 12 years old. There were 85 (59.7%) patients with DHF. There were 31 (21.5%) patients who had no bleeding, 39 (27.1%) patients had petechiae, 53 (36.8%) patients had minor bleeding and 21 (14.6%) patients had major bleeding. The mean AST level in DHF was 253.5 ± 205.5 IU/L ($p < 0.001$), mean ALT level in DHF was 171.1 ± 185.2 IU/L ($p < 0.001$), mean albumin level in DHF was 32.0 ± 5.7 IU/L ($p < 0.001$), mean ALP level in DHF was 97.6 ± 48.9 μ mol/L ($p = 0.027$) and mean direct bilirubin level in DHF was 6.2 ± 5.4 ($p < 0.001$). Multiple logistic regression analysis showed that AST (OR=1.025, 95% CI: 1.014 – 1.0360, $p < 0.001$), as well as abdominal pain and plasma leakage were significantly associated with DHF. Bleeding outcome was associated with the derangement of AST, ALT, albumin ($p < 0.001$) and direct bilirubin ($p = 0.038$) but not with ALP ($p = 0.585$) and INR ($p = 0.593$).

Discussion and Conclusion: This study showed that a significant association existed between liver function derangements, predominantly AST with DHF and bleeding outcome. AST can be a useful surrogate marker to predict disease severity and bleeding outcome in dengue infection.

OM-2

THE USE OF ROCKALL SCORE IN PREDICTING MORTALITY, RECURRENT BLEEDING AND NEED FOR SURGERY IN ACUTE NON-VARICEAL GASTROINTESTINAL BLEEDING

¹Noridah N, ¹Lee YY, ¹Amry AR, ¹Nor Aizal CH, ¹Nazri M, ²Maya Mazuwin Z, ²Syed Hassan SA

¹Department of Medicine, ² Department of Surgery, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Introduction: Rockall Score is a widely use score for determining prognosis after acute gastrointestinal bleeding (UGIB). However different studies have different conclusions regarding the prediction of endpoints especially mortality and recurrent bleeding. There is yet any published data in Malaysia regarding the usefulness of Rockall score.

Objective: To determine the prognosis after acute gastrointestinal bleeding by using Rockall Score.

Patients and method: This is a retrospective study involving 250 patients with non-variceal UGIB (Upper gastrointestinal bleed) admitted to Hospital Universiti Sains Malaysia (HUSM) between 2004 to 2006.

Results: The mortality rate was 3.6%, recurrent bleeding rate was 9.6% and need for operation 4.4%. Most patients (85.2%) were low risk group (Rockall score <5). The high risk group (Rockall score >5) was significantly associated with mortality ($p < 0.001$), recurrent bleeding ($p = 0.01$) and need for operation ($p = 0.013$). Multiple logistic regression analysis showed that factors significantly associated with mortality was sepsis ($p = 0.021$) and recurrent bleeding was high creatinine ($p = 0.012$). Factors associated with high risk group were stigmata of recent hemorrhage ($p < 0.001$), sepsis ($p = 0.013$) and warfarin use ($p = 0.028$).

Discussion and Conclusion: This study showed that a higher Rockall score (> 5) was useful to predict mortality, recurrent bleeding and need for surgery. However most UGIB patients belonged to low risk group. Sepsis was found to be an important factor in determining mortality and had higher Rockall score. A future prospective study on the use of Rockall score in sepsis and UGIB is useful.

OM-3

PUBLIC AND ENVIRONMENTAL HEALTH IN MALAYSIA: A PRELIMINARY REVIEW

Haliza AR

School of Health Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Introduction: Over the past three decades, Malaysia has achieved high economic growth, and the alteration and change of the physical environment in this country has been massive as well. In this crucial situation, sustainability of the environment often depends on the actions of public. Public must remain active participants in the processes of sustainable environment because the involvement of the public is a critical ingredient to curb environmental degradation. The public has the right (and duty) to stop and seek controls over such destructive development, and to ask the planners to modify their development strategies. For this reason, participation and involvement of public in environmental issues has been adopted as the national strategy for management and sustainable development of environmental resources in Malaysia.

Objective: To highlight an awareness and understanding of the environmental knowledge amongst Malaysian public and to evaluate participation and involvement of Malaysian public in the environmental issues.

Materials and method: Published papers from journals and books on environmental were searched and reviewed.

Results: Many Malaysians were not aware of the environmental issues although they may feel vaguely uneasy. Most of the Malaysian public was also unaware of their rights, roles and responsibilities to sustain the environment. Public participation and involvement was also found to be low in environmental issues due to lack of knowledge, understanding and exposure.

Discussion and conclusion: The citizen movements in many other countries have played major roles in the establishment of environmental damages. Degradation of the environment starts with people; therefore the solutions must also begin with the people. As an initial step the public must be alerted to the dangers inherent in the destruction of the environment which seems to have become a hallmark of development in our country.

OM-4

THE ASSOCIATION BETWEEN INTIMA-MEDIA THICKNESS OF THE COMMON CAROTID ARTERY AND CORONARY ARTERY DISEASE

¹Tariq Hussien HA, ¹Noreen Norfaraheen LA, ²Zurkurnai Y, ³Naeem K

¹Department of Radiology, ²Cardiology Division, Department of Medicine, ³Unit of Epidemiology & Biostatistic, Department of Community Medicine, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Introduction: Coronary artery disease (CAD) occurs due to coronary artery stenosis secondary to atherosclerosis. Common carotid arteries atherosclerosis provides a “window” to the coronary arteries atherosclerosis as both have similar risk factors.

Objective: To study the association between the increase in the carotid intima-media thickness (CIMT) and CAD and to determine whether CIMT can be used as a surrogate marker of CAD.

Patients and method: High resolution B mode ultrasound examination of both common carotid arteries was performed on 113 male patients with suspected CAD. CIMT were measured three times from the distal 1 cm of each common carotid artery. Thereafter, the coronary angiography was done on the next day. Data about the cardiovascular risk factors of CAD as age, body mass index, hypertension, diabetes mellitus, hyperlipidaemia and smoking were collected.

Results: CIMT was significantly higher in patients with CAD confirmed angiographically than in patients with normal coronary arteries ($p < 0.001$) and CIMT values were higher in patients with advanced CAD (three vessels CAD compared with one and two vessels CAD. Mean CIMT in patients without CAD was 0.72mm, in one vessel CAD was 0.87mm, in two vessels CAD was 0.93 mm and in three vessels CAD was 1.1mm. Sensitivity and specificity of CIMT were 81.3% and 81.8% respectively while PPV and NPV were 94.9% and 51.5% respectively. There were a significant association between age, smoking, DM and hyperlipidaemia with CAD and also significant association between age, smoking and DM with increased CIMT ($p < 0.001$)

Discussion and conclusion: CIMT was significantly higher in patients with CAD especially those with advanced CAD. High resolution B-mode ultrasound measurement of CIMT can be used clinically as screening tool for early detection of patients with suspected CAD with no history of myocardial infarction or patients free of symptoms but with number of cardiovascular risk factors

OM-5

A STUDY ON PEAKING OF BODY FAT AND AGE RELATED CHANGES IN HUMAN BODY COMPOSITION

Muralidhara DV

UniKL Royal College of Medicine Perak, No. 3, Jln Greentown, 30450, Ipoh, Perak, Malaysia

Introduction: Ageing is associated with increase in body mass, total body fat, loss of fat mass, central adiposity (redistribution body fat) and reduction in basal metabolic rate. In most men, gains in body weight occur between 29 and 35 years of age and in women between 45 and 49 years of age. It has also been observed that there will be no change in fat free mass (FFM) till 70 years of age. In contrast, a study from Kenya has shown that limited food availability results in a significant linear age related decline in body fat but not FFM. With this background knowledge, BC changes were analyzed against each age group and their respective body mass index (BMI) in our population.

Materials and method: A cross sectional studies involving one thousand fifty two (1052) subjects, aged between 18 to 73 years of which 538 were males and 512 females. They were grouped into five categories based on the age; <20, 21-30, 31-40, 41-50, >51 years. Body weight, height and BMI were recorded. They were further sub divided as Undernourished (BMI <18.49), Normal (BMI 18.5 to 25) and Overweight/obese (BMI >25) on the basis of BMI according to a WHO report. BC was assessed (Fat mass, Fat Free Mass & Water) using Futrex-5000A (Gaithersberg, USA) – an electronic body composition analyzer.

Results: In males, 55% normal, about 23% undernourished and 22% were overweight/obese. Among females: 48% were normal, 9% were undernourished, 43% overweight/obese. BF differences based on gender and BMI were evident. Whole group (male and female) showed an increased in body weight and body fat (kg and %) between 31-40 yrs of age. Male: Sub groups UN showed no change in BF (kg), but increase in % BF between 21 and 30 yrs of age and later slight decline. A similar trend in normal and OW group but with a slight increase in BF (kg and %) between 21 and 30 yrs of age. Female: Sub groups showed no significant change in BF (Kg or %) through different age groups in all sub groups.

Discussion and conclusion: Considerable proportions of the subjects were overweight/obese in both genders. The peaking of BF was different when analyzed against BMI. Female subjects did not show significant changes in BF% when analyzed on the basis of BMI. Peaking time is the same in both male and female subjects on the whole group basis.

OM-6

TRANSLATING KNOWLEDGE TO ATTITUDE: A SURVEY ON THE PERCEPTION OF BYSTANDER CARDIOPULMONARY RESUSCITATION AMONG DENTAL STUDENTS AND SCHOOL TEACHERS IN KOTA BHARU, KELANTAN

Chew KS, Kamarul Aryffin B, Abu Yazid MN, Tuan Hairul Nizam TK

Department of Emergency Medicine, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Objective: To determine whether the knowledge of basic life support that we have taught to our participants would actually translate into their willingness to perform bystander cardiopulmonary resuscitation (CPR) should they encounter one outside of the hospital

Materials and method: This is an opportunistic survey in conjunction with the end of a basic life support course. For the final year dental students (DS), they were given the survey at the end of their emergency medicine rotation. The respondents were assessed on their willingness to perform CPR under ten hypothetical scenarios including if the victim is their own family member. For each scenario, they are given four options ('definitely yes', 'probably yes', 'probably no' and 'definitely no'). This survey was repeated to a group of 120 school teachers (ST) after a basic life support workshop training. Convenient sampling was applied and appropriate statistical methods were computed using SPSS version 12.0.

Results: 92% of DS and 60.8% of ST responded. In the DS group, only 25 participants (45.5%) said if given a choice, they would offer to perform bystander CPR whereas 28 (50.9%) said they would just offer to call an ambulance but dare not offer to perform CPR. Except for cases where the victim is their own family member or close friend, all other scenarios recorded a low percentage of positive response. Similar patterns were observed in the ST group. In the ST group, the positive response rate (recoded from 'probably yes' and 'definitely yes' options) was also significantly lower if the victim is from the different gender group, especially if the respondent was a female teacher (21.4%, $p < 0.05$)

Discussion and conclusion: Knowing how to perform CPR does not necessarily translate into willing to perform. Performing both mouth-to-mouth breathing with chest compression is possibly a significant deterrence in our culture, especially for a female participant responding to a male victim. Performing chest-compression-only CPR is probably a much more acceptable option.

OM-7

LATE PRESENTATION OF HEPATOCELLULAR CARCINOMA (HCC) EXCLUDES KELANTANESE PATIENTS FROM SUITABLE TREATMENT

¹Che Hamzah NA, ¹A Yahya A, ¹Lee Y, ¹Mustaffa, N, ²Syed Abd Aziz SH, ²Yahya MM

¹Medical/Gastroenterology, Hospital Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia. ²Department of Surgery, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Objective: To determine the clinical characteristics and treatment received by the HCC patients

Patients and method: This is a retrospective review of HCC cases diagnosed in Hospital Universiti Sains Malaysia from 2004 to 2006. The demographic profiles, viral hepatitis status and duration of diagnosis, presence of diabetes, AFP level, Child-Pugh score, radiological features and treatment received for HCC were obtained from the records.

Results: A total of 40 patients, 33 male (82.5%) and 7 female (17.58%) were included. The mean age was 57.7 (range 31-82). The majority were Malays 36 (90%), only 4 (10%) are from other ethnic groups (3 Chinese, 1 Siamese). 26 patients (65%) had hepatitis B, 3 (7.5%) had hepatitis C, 2 (5%) had combined HBV/HCV infection. The majority of patients (77.8%) discovered their viral hepatitis status at presentation of their HCC and not under regular follow-up. 6 patients (15%) had diabetes. The patients were classified as Child's A- 6 (15%), Child's B- 14 (35%), Child's C- 20 (50%). AFP levels were elevated in only 57.5% patients. Most patients had multiple lesions on CT. Only 6 (15%) patients received treatment- chemoembolisation (4), radiofrequency ablation (1) and radiotherapy (1). No patient was suitable for surgical intervention

Discussion and conclusion: Kelantanese patients with HCC presented late and therefore not suitable for treatment. Majority of these patients were unaware of their viral hepatitis status and therefore were not under regular follow up. As viral hepatitis is an important risk factor in HCC development, we recommend viral hepatitis screening and treatment to prevent this complication. We also need to raise awareness of liver cancer in our community.

OM-8

A CASE SERIES OF EARLY-ONSET MUSCARINIC TOXIDROME AFTER WILD MUSHROOM INGESTION

Chew KS, Nik Hisamuddin NAR, Rashidi A, Kamarul Aryffin B, Abu Yazid MN, Nasir M, Nik Arif NM, Tuan Hairul Nizam TK, Mohd Amin M, Mohd Zikri A

Department of Emergency Medicine, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Introduction: The worldwide incidence of mushroom poisoning are increasing; most often due to increased consumption of uncultivated, hallucinogenic mushrooms. However, majority of these reports have no identified exact species and toxins. Furthermore, in Malaysia, many of these cases went unreported. Recently, a new syndromic classification of mushroom poisoning has been proposed, although not fully accepted worldwide. We report a series of six cases, all within a single family, to illustrate the usefulness of this new classification to expedite early diagnosis and intervention.

Case Report: The symptoms started about two hours after ingestion of cooked uncultivated mushrooms by a family of six members. Five out of the six members had symptoms of colicky central abdominal pain associated with episodes of watery diarrhea and vomiting. Two of them had severe diaphoresis as well as increased salivation and lacrimation. Using the syndromic classification, we treated them under the early-onset muscarinic toxidrome. The two members with severe diaphoresis were atropinized besides administration of activated charcoal. Both of them were admitted for in-hospital treatment and were discharged after two days in ward. The other four patients were discharged after six hours of close observation in the Emergency Medicine Department. The commonest symptom in all six cases was blurring of vision. Two weeks later, we conducted a telephone interview to find out the conditions of the family members affected. All of them were well without any residual symptom.

Discussion and conclusion: Even though the family members brought in some raw cut samples of the mushroom for identification, the National Poison Centre can only test for specific limited number of toxin assays (all of which were tested negative in the sample provided). These cases illustrate the importance of early diagnosis based on recognition of clusters of symptoms.

OM-9

INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS (IMCI) IMPLEMENTATION IN LAHEJ-YEMEN: A QUALITATIVE EXPLORATORY ANALYSIS

^{1,2}Basaleemad HO, ¹ Amin RM

¹Department of Community Health, Universiti Kebangsaan Malaysia Medical Centre, Jalan Yaacob Latif, Bandar Tun Razak, 56000 Kuala Lumpur, Malaysia. ²Department of Community Medicine, Faculty of Medicine and Health Sciences, Aden University, Aden- Yemen

Introduction: In Yemen, IMCI strategy was started in 2000. So far, no study addressed IMCI implementation in Yemen

Objective: To explore the perception of health care providers about IMCI implementation, and community leaders and mothers about health services and community actions related to child health in Lahej-Yemen.

Subjects and method: Semi-structured in-depth interviews were conducted involving twelve health care providers, six community leaders, and seven mothers in the three districts implementing IMCI in Lahej during the period January-July 2007. Health care providers were purposively selected from among those in direct contact with mothers and children and who were residing and working in the community for at least two years prior to the interview. Community leaders were approached through snowballing technique whereas mothers who agreed to participate were interviewed. Content analysis technique was used for the analysis of the data.

Results: Several themes from the three groups of interviewee were identified. The health care providers expressed their opinion with regards to 'vague idea about community-IMCI'; 'multiple roles for one person'; 'inadequate physical facilities'; 'immunisation is most successful'; 'shortage and high turnover of trained staff'; and 'disappointing drug supply'. The community leaders and the mothers were not aware of IMCI but did give their opinion about child-related health care services. The community leaders have 'positive perception to the services'; and 'uncertainty about the role of community participation'. The mother also have 'positive perception to the service'; and 'poor livelihood and environmental condition'.

Discussion and conclusion: Community appreciation about the conduct of health provider was obvious. Lack of understanding about the community-IMCI, ineffective community actions and gaps in health system support would endanger the positive influence of IMCI on child health unless deliberated actions are undertaken at different levels (community, central health authority and academia).

OM-10

CHILDHOOD IMMUNISATION AND ITS DETERMINANTS IN ADEN –YEMEN

^{1,2}Al-Sakkaf KA, ¹.Shamsuddin K

¹Department of Community Health, Universiti Kebangsaan Malaysia Medical Centre, Jalan Yaacob Latif, Bandar Tun Razak, 56000 Kuala Lumpur, Malaysia. ²Amin Nasher Higher Institute for Health Sciences Aden, Yemen

Introduction: In order to control and eliminate the vaccine preventable diseases in a country it is important to know the immunisation coverage and its determinants

Objective: To assess the childhood immunisation status of Yemeni children between the ages of 12 to 23 months and its determinants.

Patients and method: A Cross-sectional survey of selected households was conducted between in 2007. Six hundreds and eighty mothers and primary caretakers of children aged between 12 and 23 months from randomly selected clusters (communities) were interviewed. Information on children's, mothers' and families' socio-demographic profiles as well as children's immunisation status was obtained through face-to-face interviews. Immunisation coverage of all vaccines covered by the Yemeni EPI and their dropout rates were assessed. Analysis of association between immunisation coverage and child's, mother's and family's socio-demographic characteristics was done and tested using Chi-square tests and logistic regression.

Results: Among the 680 children in this study, 83.1% had complete, 10.4% had partial and 6.5% were never immunised. Immunisation card retention rate for children was 84.9% and absence of immunisation cards were due to damage, loss or no immunisation. The immunisation coverage based on cards and history was 92.9% for BCG, 89.6% for OPV3, 86.6% for DPT3 and HBV3, and 89.1% for measles. DPT1 – DPT3 and BCG – Measles dropout rates were 2.5% and 4.5% respectively. Multivariate analysis showed the odds ratio of incomplete immunisation by mother's age in years was 0.95 (95% CI: 0.91-0.99) and 15.26 (95% CI: 8.86-26.28) among mothers who did not have their children's immunisation card.

Discussion and conclusion: Although immunisation coverage in Aden-Yemen is relatively high, 16.9% of children did not have complete immunisation and this was higher among children with younger mothers and those who did not have their immunisation cards. Intervention to raise awareness on immunisation, and increased access to health services must be strengthened.

OM-11

ESTIMATING PREVALENCE OF BREAST CANCER IN YEMEN, USING CAPTURE-RECAPTURE METHOD

¹Abdulla Saleh AA, ²Aziz Alsafi I

¹18-5-3, Midah Ria, Jalan Midah 8, Taman Midah, Cheras 56000 Kuala Lumpur, Malaysia

² Department of Community Medicine, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Objective: To determine the prevalence of breast cancer in Yemen using Capture-recapture method.

Materials and method: For estimating the prevalence of breast cancer, five sources of data were used. The data were from histopathological laboratories, cytostatic drugs dispensaries, Cancer Centre in Sana'a and Cancer Registry in Aden, records from medical boards, hospital and clinic records to estimate the point prevalence of breast cancer and its standard error. We used Chao's Care-1 program based on sample coverage approach and best fit model following specified criteria in our estimation.

Results: From our analysis, the CR prevalence rate of breast cancer in Yemen during a five-year period between 2001-2005 was estimated to be 42.4 per 100,000 women (95% CI: 41.5- 43.3). This is almost twice higher than the crude prevalence rate of breast cancer estimated by conventional method based on available reported data which was estimated as 20.8 per 100,000 women (95% CI: 20.1-21.6). Our estimate also showed that the age standardized incidence rate of breast cancer for the year 2005 was 26.2/100,000 women (95% CI: 24.8 -27.6).

Discussion and conclusion: By using the capture-recapture method based on sample coverage approach in Chao's Care-1 program, we estimated the number of breast cancer cases including the missing cases to be higher than what was reported to the health services system in Yemen but, this estimation was lower than the estimation published by Globocan in 2003.

OM-12

SHARING HEALTH AND MEDICAL KNOWLEDGE THROUGH MULTIMEDIA REPOSITORY SYSTEM

Sharifah Mastura SM, Nor Azmi Z, Mohd Nazri MH, Zamilah H, Zar Ni W

School of Health Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Introduction: Multimedia Repository System (MRS) is a web-based application, developed using Instructional Management Systems (IMS) standard. MRS provides interface for uploading objects to a central server, enabling users to catalog and organize their multimedia learning resources. Cataloging fields include image, keywords, clinical and technical information.

Materials and method: MRS was developed from scratch using the prototyping system development methodology. Its implementation was carried out using open source technologies that include Apache Web Server, PHP scripting and My SQL database management system. Users' acceptance test was conducted with thirty five lecturers from Health Campus, Universiti Sains Malaysia (USM).

Results: MRS is currently accessible within USM intranet environment and soon, it will be made accessible through the internet. Users' acceptance test results show that the lecturers found the system to be easy to use (Mean=18.09; SD=1.70; min=15; max=21) and useful for sharing health and medical knowledge (Mean=11.86; SD=1.65; min=7; max=14). Contributors can share their collections with students and colleagues who can browse the collections, through proper authentication, in a variety of ways. The objects can also be downloaded to user storage media. A description, tutorial notes, clinical information and a copyright statement accompany the multimedia item.

Discussion and conclusion: MRS can be used by Health and Medical lecturers to share their knowledge objects with students and colleagues as well as integrate it with Learning Management System (LMS) as online resources for teaching and learning purposes.

OM-13

EXPERIENCE OF UNDERGOING CLINICAL PRACTICE CHANGE IN 2 MALAYSIAN HOSPITALS

¹Jacqueline JH, ²Japaraj PR, ³ Van Rostenberghe, ³Che Anuar Y, ⁴Alvin C, ²Sivasangari S

¹Penang Medical College, Jalan Sepoy Lines, 10450, Penang Malaysia. ²Hospital Ipoh, 30990, Ipoh, Perak, Malaysia. ³School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia. ⁴Hospital Selayang, Lebuhraya Selayang- Kepong, 68100 Batu Caves, Selangor Darul Ehsan, Malaysia

Objective: To determine the experience of staff in neonatal and obstetric units in undergoing a clinical practice change.

Subjects and method: Self administered questionnaire for all grades of staff in the obstetric and neonatal unit of one university hospital and one government hospital.

Results: Of 257 staff who completed the questionnaire, (159 nurses, 32 specialists and 66 junior doctors), 33% of them have been involved in a practice change, (nurses 33%, specialist 60% and junior doctors 14%). 58% of these changes had been initiated by the head of department, the remaining initiated by another colleague or a senior staff. The change was made because of new evidence 45%, or new technology 45%, new drug (5%) and others (5%). Major resistance was encountered in 21%, minor resistance 55% and no resistance 31%. The major reason for resistance was little or no consultation or discussion at implementation (54%). To overcome resistance to change 53% felt that discussion or multidisciplinary workshops were the best action and 30% easy access to clear written guidelines. There were no major differences between the 2 hospitals.

Discussion and Conclusion: Hospital staffs are infrequently involved in a clinical practice change, it is usually initiated by the head of department and resistance is encountered most frequently due to lack of discussion or consultation.

OM-14

KNOWLEDGE AND USE OF EVIDENCE BASED PRACTICE IN TWO OBSTETRIC AND NEONATAL UNIT UNITS

¹Jacqueline JH, ²Japaraj PR, ³Rostenberghe HV, ³Che Anuar Y, ⁴Alvin C, ²Sivasangari S

¹Penang Medical College, Jalan Sepoy Lines, 10450, Penang Malaysia. ²Hospital Ipoh, 30990, Ipoh, Perak, Malaysia. ³School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia. ⁴Hospital Selayang, Lebuhraya Selayang-Kepong, 68100 Batu Caves, Selangor Darul Ehsan, Malaysia.

Objective: To determine the knowledge and use of evidence by obstetric and neonatal staff in a Malaysian government hospital (GH) and university hospital (UH)

Subjects and method: Self-administered questionnaire.

Results: 275 staff completed the questionnaire, 174 nurses, 69 junior doctors, and 33 specialists. A computer with internet was available in the work place for over 90% of UH staff and 30% of GH staff. These sources of information were used frequently by 54.5% for patient care and 38% for teaching. Over 80% of doctors but only 30% of nurses had heard of evidence-based practice but almost all the descriptions given indicated a lack of understanding of the concept. 60% of doctors had heard of the Cochrane library and 12% of nurses. 30% of those who had heard of it had access to it but 40% of them had never accessed it. Only 7 staff had attended a workshop on how to use the Cochrane library. Under 10% had heard of the WHO Reproductive Health Library but only 3 had ever accessed it.

Discussion and conclusion: Training is required to increase the understanding and use of evidence, in particular pre-appraised evidence databases and evidence based clinical practice guidelines.

OM-15

THREE CASES OF LANGERHANS CELLS HISTIOCYTOSIS

Izzat Abdulla AB, Meera Mohaideen AK

Department of Radiology, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Introduction: Langerhans' cell histiocytosis (LCH) is a rare multisystemic disorder with abnormal proliferation of histiocytes, affecting mostly children of both sexes. It can present as Localized eosinophilic granuloma (70%) or disseminated form (30%). Symptoms and findings vary depending on organs affected and extent of involvement. We present similarities and differences of three confirmed Pediatric cases of LCH.

Case Report: Patient A: 4 years +5 months old male patient with H/O allergy and anaemia, LOW, seborrheic dermatitis, fever, ear discharge, lymphadenopathy, splenomegaly and soft systolic murmur. Investigations: HB:5.4gm/dl, WBC:3.300 μ l, Platelets: 58,000, LFT and RFT: normal, CRP: highly +ve, BMA: Normal SXR: Multiple lytic lesions. CT scan: Bone lesions, hepatosplenomegaly, LN enlargement, pneumonitis. Skin biopsy: LCH. Chemotherapy: No improvement. Follow-up scans: new lesions. Patient B: 3 years +7 months old male with H/O allergy and LOW, anaemia, abdominal distention, skin rash, seborrheic dermatitis, minimal ear discharge and runny nose, bilateral proptosis, hepatosplenomegaly and palpable LNs. Investigations: HB:8.8 gm/dl, WBC:6500 μ l, Platelets :207,000, LFT and RFT: normal; BMA: LCH. Skin biopsy proved LCH. Plain skull X-ray: multiple lytic lesions. CT scan: LCH with hepatosplenomegaly, liver, lymph nodes and bone lesions. MRI orbits: Bilateral lesions arising from sphenoid wings. Chemotherapy: No improvement. Patient C: 3 years +9 months old male who has allergy to seafood and LOW, anaemia, fever and epistaxis. On examination: swelling in the left jaw with discharge, palpable lymph nodes, soft systolic murmur. Investigations: HB:4.5gm/dl, Blood group: B positive, WBC:6400 μ l, Platelets :417,000, LFT and RFT: normal, CRP: +ve, Virus screening : HIV, Hep.B & C:-ve. EBV: +ve. BMA: Reactive changes. LN biopsy: LCH.

Discussion and Conclusion: All three cases are male pediatric patients with many common features and few differences. The three cases had chemotherapy and received blood transfusions. Two cases showed no clinical or radiological improvement while the third case has improved. This case reports can help in predicting the prognosis and management of patients with LCH who present with similar features.

OM-16

DOES THE MORPHOMETRY AND MAGNETIC RESONANCE IMAGING SIGNAL INTENSITY CHANGES OF HIPPOCAMPUS IN REFRACTORY EPILEPSY PATIENTS DIFFER FROM NORMAL SUBJECTS?

¹Abdul Kareem M, ¹Ismail SS, ¹Salmah, ²Tharakan J, ³Musa KI

¹Department of Radiology, ²Department of Neurosciences, ³Biostatistics Unit, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Objectives: To determine and compare the hippocampus volume in the normal subjects and refractory epilepsy patients and to determine the association of hippocampus volume with its MRI signal intensity changes in refractory epilepsy patients.

Patients and method: This was a cross sectional study of 43 chronic refractory epileptic patients and 43 controls. MRI protocol specific for epilepsy surgery was followed. Assessment of mean hippocampus volume and signal intensity changes were obtained for both controls and refractory epilepsy patients. A hippocampal volume of < 2 SD from the normal volume was taken as atrophy. Statistical analysis was done using SPSS version 12.01 software program. P value less than 0.05 was taken as significant. Correlation of hippocampal intensity changes, atrophy and sclerosis, was done with EEG findings.

Results: Results were expressed as mean \pm standard deviation. The hippocampus volume of refractory epileptic patients were $2412.91 \pm 570.09 \text{ mm}^3$ on the right and $2391.01 \pm 620.01 \text{ mm}^3$ on the left. For controls, the right hippocampus volume was $2921.51 \pm 394.70 \text{ mm}^3$ and $2943.41 \pm 367.67 \text{ mm}^3$ on the left. The difference between these two groups was statistically significant. Of all the patients, 32 (74.40%) had abnormal findings on MRI: unilateral atrophy with sclerosis in 20, bilateral atrophy with sclerosis in 6, atrophy only in 2, only sclerosis in 2, angioma and neuronal migration disorder in 2 patients.

Discussion and conclusion: Significant difference exists in the volume and signal intensity of hippocampus in patients and controls. Hippocampus atrophy and sclerosis correlates well with the EEG lateralization. This study is important because about 80% - 90% of patients with mesial sclerosis will become seizure free after anterior temporal lobectomy.

OM-17

A RANDOMIZED CONTROLLED TRIAL OF PARENTERAL GLUTAMINE IN NEWBORN RECEIVING TOTAL PARENTERAL NUTRITION (TPN) IN HOSPITAL USM

Mohamad Ikram I, Quah BS, Noraida R, Stanislaus D, Faris I, Rostenberghe HV.

Department of Paediatric, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Objective: To determine whether the addition of glutamine to standard TPN in neonates improves selected neonatal outcomes.

Patients and method: This was a double blinded randomized controlled trial. Babies admitted to the NICU during the 1-year study period, requiring TPN were eligible for inclusion. Subjects were randomized either to receive glutamine added TPN (intervention) or standard TPN (control). Primary outcome measures included duration to full enteral feeds, incidence of infection and duration of ventilation.

Results: Out of 248 subjects included in the study, 121 were randomized to the intervention group and 127 to the control group. There were no significant differences between the two groups in terms of baseline data. Time taken to reach full enteral nutrition was very similar for intervention and control group (8.39 vs. 8.37 days, $p=0.986$). Duration of ventilation period and incidence of necrotising enterocolitis in intervention group were slightly better than for the control group but not significantly so (4.82 vs. 5.59 days, $p=0.48$ and 5.8 vs. 7.1 %, $p=0.677$). The incidence of infection was also not different among the two groups.

Discussion and conclusion: Addition of glutamine to TPN for neonates was not shown to improve outcome.

OM-18

DEVELOPMENT OF A POSTGRADUATE INFORMATION SYSTEM (PIS) FOR THE INSTITUTE FOR RESEARCH IN MOLECULAR MEDICINE USM

Phua KK, Wan Zainal WA, Heng FL

Institute for Research in Molecular Medicine (INFORMM), Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Introduction: In the race to secure Research University (RU) status, there is a need to obtain accurate and timely information regarding the achievements of the university. Postgraduate candidates form an important component of the RU audit exercise

Objective: To develop a Postgraduate Information System (PIS) to address these issues.

Materials and method: PIS was developed using Filemaker Pro™ 8.5, and following prototype testing the system was deployed on an Apple Xserve™ on a client-server architecture, that enabled an unlimited number of users access to the database on the USM network. Algorithms were developed using scripts to address specific requirements of PIS. These include statistical data on student enrollment and accomplishments, including impact factors of published journals and papers presented at conferences.

Results: A total of 24 postgraduate-student records including 147 fields of data, were successfully stored in the PIS. Innovative features of the PIS include: easy navigation, 24-hour on-line access, customizable layouts for data entry and viewing, automated reporting, and integrated on-line charting capability. Reports which normally take hours to prepare, such as student biodata, student achievements, ie. journal papers published, abstracts presented, awards, as well as the mundane student-progress monitoring, can all be accomplished using PIS.

Discussion and conclusion: The client-server architecture for database deployment appeared to be ideal for our PIS. We therefore conclude that PIS should form an integral part of our research audit workflow, in our quest to sustain RU status at the Ministry of Higher Education.

OM-19

MUTATIONS IN THE TGF ALPHA GENE IN NON-SYNDROMIC CLEFT LIP WITH OR WITHOUT CLEFT PALATE PATIENTS IN MALAYSIA

Haswati@Nurhayati A, Zenty Erma Z, A'atikah NM, Kaneez Fatima A, Kannan TP

School of Dental Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Objective: To determine the alterations of K-primer region of TGFA gene in non-syndromic CL±P patients in Malaysia.

Patients and method: This experimental study involved 20 samples from non-syndromic CL±P Malay patients who attended Hospital Universiti Sains Malaysia, Malaysia and 7 normal healthy subjects (control). DNA was extracted from the blood samples and Polymerase chain reaction (PCR) was carried out for the K-primer region of TGFA gene. The PCR product was then subjected to Denaturing high performance liquid chromatography (dHPLC) to screen for any mutations. Subsequently, sequencing was carried out in the samples which showed mutations to identify the type of alterations.

Results: In the control group, one sample showed homozygous mutation (AA); 3 had heterozygous mutations (AG) and 3 had heterozygous mutations (CT). In the case of CL±P samples, 6 out of the 20 showed two types of heterozygous mutations (CT) and (AG) out of which 4 samples harbored both types of heterozygous mutations (CT) as well as (AG) but in different locations. However, none of these mutations have been reported in the wild type sequence in the GenBank.

Discussion and conclusion: Novel mutations were detected in the TGFA gene both in the normal subjects as well as in the non-syndromic CL±P Malay patients in Malaysia

OM-20

PRELIMINARY STUDY ON THE DEVELOPMENT OF SNAKEBITE EMERGENCY DIAGNOSING SYSTEM (SBEDS)

¹Shamimi AH, ²Rashidi A

¹Faculty of Information Technology and Quantitative Science, University Technology Mara, 40450 Shah Alam, Selangor; ²Department of Emergency Medicine, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Introduction: Snakebite is a neglected occupational disease in the tropics.

Objectives: To investigate the incidence of snakebites in Malaysia and its management and to develop the most suitable Artificial Intelligence (AI) application to determine the types of bitten snake.

Materials and method: Literature searches of MEDLINE, Science Direct and IEEE were conducted. The secondary data was obtained from National Poison Center, Institute for Medical Research, Kuala Lumpur Hospital, Kangar District Hospital, Journal of Venomous Animals and Toxins including Tropical Disease and The Southeast Asian Journal of Tropical Medicine and Public Health. Other sources include contacts with experts in the field and emergency physician.

Results: Substantial numbers of poisonous and non-poisonous snakebites was reported from Hospital Kuala Lumpur and Kangar District Hospital. A symptomatic species identification system using Neural Network technique is the most appropriate software program.

Discussion and conclusion: AI is a system that think and act like human. The application of AI technique in medicine can be seen as a means of diversifying the usage of latest technology in respective area. We try to develop a prototype named Snakebite Emergency Diagnosing System (SbEDS) for rapid identification of specific poisonous snake for the specific antivenom therapy.

OM-21

PREVALENCE OF BETA-2 ADRENOCEPTOR (β 2AR) POLYMORPHISM IN MALAY POPULATION AND INFLUENCE OF THIS POLYMORPHISM IN ENDOTHELIAL FUNCTION ASSESSMENT USING PULSE WAVE ANALYSIS (PWA).

¹Nik Nor Izah NI, ¹Aida Hanum GR, ¹Abdul Rahim W, ²Abdul Rashid AR

¹Department of Pharmacology, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia. ²Cyberjaya Universiti College of Medical Sciences, 63000 Cyberjaya, Selangor, Malaysia.

Objectives: To determine the prevalence of Beta-2 adrenoceptor (β 2AR) polymorphism in Malay population and to determine whether the polymorphism influences the assessment of endothelial function using pulse wave analysis (PWA).

Patients and method: Genotyping were done to detect 5 functionally important single nucleotide polymorphisms (SNPs) of β 2AR in 388 healthy Malay subjects (177 males, 211 females). 298 subjects proceeded with the study of endothelial function. Augmentation index (AI) recordings were taken at baseline, done non-invasively using SphygmoCor. Subjects were then administered with 500 μ g of sublingual glyceryl trinitrate (GTN) followed by AI recordings. After a wash-out period, 400 μ g of inhaled salbutamol was given followed by AI recordings. The maximum changes in AI after each pharmacological challenge was taken as final measurements.

Results: The allele frequencies of mutated Gly16, Glu27, Ile164, -20T and -47T were 47%, 6.7%, 0%, 70% and 90.7% respectively. No significant differences in AI were noted after both GTN and salbutamol challenges in all genotype groups.

Discussion and conclusion: The assessment of endothelial function using PWA combined with salbutamol was not affected by β ₂AR polymorphism. This method may provide a simple and non-invasive way of assessing endothelial function.

OM-22

USE OF REFLECTIVE LEARNING PORTFOLIO DURING A COURSE FOR NURSE EDUCATORS IN HUSM

¹Rostenberghe HV, ²Short J, ¹Che Anuar Y, ¹Tan BG, ³Jacqueline JH, ⁴Sivasangari S, ¹Noraida R

¹School of Health Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia. ²University of Sydney, New South Wales, 2006 Australia. ³Penang Medical College, No 4, Jln. Sepoy Lines, 10450 Penang, Malaysia. ⁴Hospital Ipoh, 30990 Ipoh, Perak, Malaysia.

Objective: To determine the suitability of the use of a reflective learning portfolio during a two-week intensive course to train nurse educators in the NICU and labour room of Hospital Universiti Sains Malaysia.

Subjects and method: As part of a two-week training course for 12 nurses from the labour room and NICU, nurses maintained a personal reflective portfolio. At the beginning of the course the nurses were instructed on how to maintain a portfolio. The actual portfolio was completely personal but each nurse handed in a summary of the portfolio at the end of the course. The reflective portfolio summaries were thematically analysed using a grounded theory approach.

Results: Emerging themes from the nurses reflective portfolios included: significant increases in confidence in module presentation, knowledge and skill gains in research and training and positive suggestions and enthusiasm for ongoing training. Nurses experienced the keeping of a learning portfolio as a very helpful tool in assisting them with the process of learning. They had applied a lot of creativity, including pictures and drawings in their original portfolios.

Discussion and conclusion: The use of reflective portfolios during courses is relatively new in Malaysia but it seemed a valuable tool for the participating nurses.

OM-23

SMOKING AWARENESS AMONG THE STAFF OF SCHOOL OF DENTAL SCIENCES AND INFORMM, USM IN RELATION TO ISLAMIC PERSPECTIVE

Nurulsyazana MS, Rehanah MZ

School of Health Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Introduction: In Malaysia, smoking accounts for one out of every five deaths. It is the most important modifiable cause of premature death and about 10,000 Malaysians die each year as a result of smoking. In the Islamic point of view, smoking gives a bad effect to human health and according to the rule of syariah, smoking is categorized under makruh (discouraged) or haram (prohibited).

Objective: To determine the prevalence of smokers and awareness of smoking in relation to Islamic perspective.

Materials and method: A cross-sectional study among male staff (n=55) in School of Dental Sciences (PPSG) and INFORMM in Health Campus, Universiti Sains Malaysia through guided questionnaire. Categorizing of smokers through hair nicotine test, carbon monoxide (CO) test and lung function test were done.

Results: The number of smokers was 13 (23.6%). Most of them smoked during young adulthood aged between 18-24 years old. It was found that the educational level among staff did not relate to smoking habits. Most of the smokers (84.6%) claimed that smoking was only discouraged ('Makruh') in Islam. There was a significant difference between mean understanding of smoking from Islamic religion perspective among smokers and non-smokers ($p < 0.05$). The nicotine test analysis showed that 53.8% of smokers were categorized as regular smokers and from CO test analysis, 38.5% and 15.4% were categorized as moderate and light smokers respectively. Mean \pm SD for Forced Vital Capacity (FVC) was 2.76 ± 0.80 , for Forced Expiration Volume in 1 second (FEV1) was 2.36 ± 0.71 and for Forced Expiration Volume in 1 second / Forced Vital Capacity (FEV1/FVC) was 86.38 ± 12.58 . They were having possible restriction disease. The more rapid decline in FEV1 can result in chronic obstructive pulmonary disease (COPD).

Discussion and conclusion: Smoking habits can affect health and expose themselves to several diseases and it was clearly notified that smokers denied that smoking was haram (prohibited) in Islam but claimed that it is makruh (discouraged). However, the truth is Islam prohibits their believers to smoke. This should be changed and smokers should be advised to quit smoking with the reason of their possibility of having lung restriction.

OM-24

***AN E-MAIL WORKPLACE HEALTH PROMOTION INTERVENTION:
PRELIMINARY BASELINE DATA ON WEIGHT MANAGEMENT PRACTICES
AND PHYSICAL ACTIVITY OF PARTICIPANTS***

Kandiah M, Cheong SM, Wong CY, Zalilah MS, Hazizi AS, Chan YM.

Department of Nutrition and Dietetics, Faculty of Medicine and Health Science, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia.

Objective: To report preliminary baseline information on weight management practices and physical activity of adults in a 10-week workplace e-mail intervention designed to promote physical activity and healthy nutrition behavior which will be carried out at University Putra Malaysia.

Patients and method: Height and weight were measured using established methods to compute body mass index. A pretested questionnaire was used to obtain information on weight management practices and sociodemographic status. Physical activity was measured using the International Physical Activity Questionnaire.

Results: Baseline data was obtained on 100 adults of whom 29% were academic and 71% non academic staff. The results show that 40% of the respondents were categorized into low physical activity level, 42% in the moderate, and only 18% in high physical activity level. The prevalence of overweight and obesity were 29.0% and 13.0% respectively. About 43% of respondents thought that they were overweight or obese while 55% were trying to lose weight. The respondents had tried several weight management methods such as physical activity (2.23 ± 1.26 practices), dietary fat reduction (1.91 ± 1.4 practices), increasing fruits and vegetables consumption (1.85 ± 1.40 practices), and reducing portion size (1.63 ± 1.13 practices). Chi-square tests showed significant relationships between BMI categories (higher BMI) and physical activity level (lower physical activity level) ($\chi^2 = 7.911$, $p = 0.019$) while physical activity level was related to perception of body weight ($\chi^2 = 7.699$, $p = 0.021$). There were significant relationships between the practice of portion size control and age ($p < 0.05$), marital status ($p < 0.05$), occupation ($p < 0.01$), income ($p < 0.05$) and with BMI of respondents ($p < 0.05$).

Discussion and conclusion: University campuses provide an ideal setting for reaching working adults with education and prevention programs that promote physical activity and healthy weight management practices.

OM-25

THE IMPACT OF PEER ASSISTED LEARNING (PAL) ON STUDENT ACADEMIC PERFORMANCE

Mohd Hafiz NA

Cyberjaya University College of Medical Sciences, Unit No.2 Street Mall 2, 63000 Cyberjaya, Selangor Darul Ehsan, Malaysia

Objective: To evaluate the effectiveness of the PAL program in improving the test grade of academically weak students.

Subjects and method: A total of 16 high achievers and 32 academically weak students were selected from the first year 2007 batch of medical undergraduate program in Cyberjaya University College of Medical Sciences based on the overall results of the previous block. The students were randomly assigned into 2 groups i.e. intervention using PAL program and control groups, where each group consisted of 8 high achievers and 16 academically weak students. In the intervention group, the students were further subdivided into 8 subgroups. Each subgroup had one high achiever performing the task of a tutor to assist 2 academically weak students. The intervention group was briefed on the objectives and procedures of the PAL program. The tutoring involved revision on the student-centered team-based learning (SCTL) modules and examination answering techniques. The tutorial was carried out daily after each SCTL session. Routine checks were carried out to ascertain that the intervention group properly carried out the PAL program activities. The students' performances in both groups were monitored based on the weekly test grade. In addition, weekly reflection was also carried out to motivate the students and to solve problems. A survey was also carried out to determine the response of the students to the PAL program.

Results: The study showed that the academically weak students in the intervention group obtained significantly higher overall test grades compared to the control group (52.5% vs 49.4%, $p < 0.05$). The result was further supported by the fact that 75% of the students in the intervention group and only 44% in the control passed the Respiratory Systemic Block examination. The study also showed that when the overall performances of the intervention and control group was compared, the intervention group showed better improvement in their marks (7.2% vs 2.5%, $p < 0.05$). The average test grade of the peer tutor in the intervention and control group was 70.9% and 67.9% respectively. The study did not show a statistically significant difference in the peer tutor group. Both the academically weak students (78%) and peer tutors (83%) supported the PAL program as it helped them understand the Respiratory System better.

Discussion and conclusion: The study suggested that PAL program involving one peer tutor assisting 2 academically weak students helps to improve the academically weak students' academic performance, although, the advantage does not seem apparent to the peer tutors.

OM-26

SLEEP DISORDERS AMONG CHILDREN ATTENDING THE PAEDIATRIC CLINIC IN USM HOSPITAL

Nazzlin D, Quah BS

Department of Paediatrics, School of Medical Sciences, School of Health Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Objective: To evaluate the frequency of sleep disorders among children attending the pediatric clinic in USM Hospital.

Patients and method: The Sleep Disturbance Scale for Children (SDSC) consisting of 26 items which concentrates on six sleep disorders, Disorder of Initiating and Maintaining Sleep (DIMS), Sleep Breathing Disorder (SBD), Sleep Wake Transition Disorder (SWTD), Sleep Hyperhydrosis (SHY), Disorder of Arousal (DA), Disorder of Excessive Somnolence (DOES), was translated to Bahasa Malaysia. Parents of children aged 4-16 years attending the paediatric clinic, USM Hospital from December 2005 to February 2008 were requested to complete the SDSC while awaiting consultation.

Results: Among 684 children from 8 sub-specialty clinics who completed the SDSC, there were 361 (52.8%) boys. The number (%) of children in each age group was as follows: 6-12 years old (462, 67.5%), 4-5 years old (86, 12.6%), more than 12 years old (136, 19.9%). Sixty-three (9.2%; 95% CI 7.3% to 11.6%) children had a significant total sleep problem score. The proportion of children with specific sleep disorders were as follows: 64 (9.4%) DIMS, 55 (8.0%) SBD, 31 (4.5%) SWTD, 27 (3.9%) SHY, 31 (4.5%) DA, and 57 (8.3%) DOES. Regression analysis revealed that the frequency of SBD ($p=0.01$) and SWTD ($p=0.03$) was significantly different among subspecialty clinics, and children aged 6-12 years had a significantly higher prevalence of DOES ($p=0.02$) than other age groups. No significant gender differences were observed.

Discussion and conclusion: Sleep disorders were relatively high among children attending the paediatric clinic in USM Hospital. Given the impact of sleep disorders on children and families, there is a need for increased awareness of children's sleep problems in the clinics and community.

OM-27

THE FACTORS CONTRIBUTING TO THE UNCONTROLLED DENGUE OUTBREAK IN KG. CABANG TIGA MELAWI, BACHOK, KELANTAN.

¹Zawiyah D, ²Junaiden MZ, ¹Fauziah MN

¹Pejabat Kesihatan Daerah Bachok, 16300 Bachok, Kelantan, Malaysia. ²Unit Kawalan Penyakit Bawaan Vektor, JKNK, Jalan Mahmood, 15586 Kota Bharu, Kelantan, Malaysia.

Introduction: An outbreak of dengue fever occurred in Kampung Cabang Tiga Melawi, Bachok from 31 January 2008 until 18 March 2008 involving 8 cases.

Objective: The aim of this descriptive report is to identify factors that contributed to the outbreak.

Patients and method: This is a descriptive report whereby the data was collected manually during aedes survey and controlled activities that were carried out.

Results: During this outbreak, 8 cases were reported (7 dengue fever and 1 dengue haemorrhagic fever), all of which were locally acquired. The date of onset of the index case was on 21/1/08. She sought initial treatment at Klinik Kesihatan Bachok on 24/1/08. Patient was seen by medical assistant once before she was diagnosed as contracting dengue fever on 26/1/08. Notification was made 5 days after diagnosis was made. The median (IQR) duration of seeking first treatment was 5 (2.8) days. Aedes survey, active case detection, thermal fogging, larviciding and closing of wells and health education to promote destruction of aedes breeding sites were done. Aedes index was 2.17% and breteau index was 3 (per 100 premises examined).

Discussion and conclusion: Late notification of the index case leading to the delay in control action taken, late in seeking first treatment and poor implementation of Destruction of Disease Barrier Insect Act (DDBIA), 1975 were among the factors contributed to the uncontrolled of the outbreak.

OM-28

PATTERN OF MULTI-DRUG RESISTANT GRAM NEGATIVE ORGANISM IN A MALAYSIAN TERTIARY TEACHING HOSPITAL

Siti Asma' H, Zeehaida M, Nabilah I and Habsah H

Department of Medical Microbiology and Parasitology, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Introduction: Multi-drug resistant (MDR) *Acinetobacter baumannii* and *Pseudomonas aeruginosa* strains were defined when the isolates were resistant to 5 out of 7 antipseudomonal classes of antimicrobial agents, i.e. antipseudomonal penicillins, cephalosporins, carbapenems, monobactams, quinolones, aminoglycosides, and colistin. Clinically important subsets of MDR Gram-negative isolates are those who are sensitive only to colistin and carbapenems termed as colistin-carbapenem-only-sensitive (CCOS). Studies have shown that infections caused by antibiotic-resistant organisms may be associated with increased morbidity, mortality, and costs. Exposure to antibiotics is a major risk factor for producing antibiotic resistance in patients.

Objective: To determine the pattern of MDR organism in the Hospital Universiti Sains Malaysia for the past 5 years.

Patients and method: A retrospective review was done. Medical records of MDR cases from January 2001 through December 2006 were reviewed for the collection and analysis of demographic and clinical data.

Results: 92 isolates of MDR gram negatives organisms were detected during the past 5 years in our hospital. The first case was detected in 2003. *Acinetobacter spp* was the commonest MDR detected (54.4%) followed by *Pseudomonas aeruginosa* (34.7%). The remaining organisms were *Klebsiella spp* including *Klebsiella pneumoniae* (6.5%), *Enterobacter spp*, *E.coli*, *Sternotrophomonas multophila*, *Morganella morganii* (all 1.1% each). As far as sample is concern, ETT secretion sample yield the highest MDR (41.3%), followed by urine samples (20.6%). Only one blood sample yields MDR. Among the intensive care units (ICU), general adult ICU had the highest MDR followed by neurosurgical ICU. The pattern of MDR had increased and their occurrence is constantly high.

Discussion and conclusion: The MDR gram negatives organisms had emerged in our local setting and their prevalence are increasing. A close monitoring of their resistant pattern is crucial and an awareness of the prevalence and patterns of resistance among gram-positive nosocomial pathogens is vital for the appropriate treatment of hospitalized patients.

OM-29

A RARE CASE OF PAEDIATRIC GASTRIC VOLVULUS

Rohsila M, Meera Mohaideen AK

Department of Radiology, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Introduction: Gastric volvulus is not so common in paediatric age group. Only about 300 cases of gastric volvulus have been reported since 1866. Ten to 20% of cases occur in children, usually before age 1 year, but cases have been reported in children up to age 10 years. We present here the imaging features of Gastric volvulus.

Case Report: A 16 months old child with history of post feeding vomiting on and off presented with distended abdomen. On examination, there was fullness of the upper abdomen with guarding in the upper abdomen. Bowel sounds were diminished. No significant respiratory distress. Plain radiograph of the abdomen in supine and erect position revealed a dilated stomach with the fundal gas is in the midpart of the abdomen. The contrast meal study performed under fluoroscopy showed a gastric volvulus. After adequate resuscitation, the patient was subjected to laparotomy which confirmed the findings of gastric volvulus.

Discussion and conclusion: Gastric volvulus can manifest as an acute abdominal emergency or as a chronic intermittent problem. It requires a high index of suspicion from the treating clinician to avert delay or error in diagnosing the disease. It should be suspected in cases of congenital diaphragmatic hernia and early surgical treatment should be instituted.

OM-30

MANAGEMENT OF CARCINOMA OF BREAST WITH DOCETAXEL CHEMOTHERAPY

Bhavaraju VMK, Biswal BM, Nik Min A

Department of Nuclear Medicine, Radiotherapy & Oncology, Health Campus, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.

Introduction: Carcinoma of the breast is the commonest malignancy among Malaysian women. The incidence of breast cancer is on rise according to NCR and about 4337 new cases were diagnosed during the year 2002. Most of the patients presented in the advanced stages where local treatment is not feasible. Chemotherapy is best suited for these patients. Several chemotherapeutic agents are available in the treatment of breast cancer. Newer drug like Docetaxel is showing promising results in the management.

Objective: To present the experience of using Docetaxel in the treatment of breast cancer at HUSM from 2002 to 2007.

Patients and method: Forty-seven patients with breast cancer attending the Oncology clinic received Docetaxel based chemotherapy during 2002 to 2007. Chemotherapy is given as Neo-Adjuvant chemotherapy, Adjuvant chemotherapy or for the Metastatic Breast Cancer treatment. We analyzed the demographic features; disease status, other combination chemotherapeutic agents and the out come of the treatment.

Results: Forty- seven patients received Docetaxel based chemotherapy. All are female patients; the mean age is 45 years (range 20 to 64 years). More than 50% are presented in T4 status. Infiltrating ductal carcinoma is the commonest variant. 36% are receptor positive, 27% are receptor negative where as a quarter percent of patients are C erb-2 positive. 51% received chemotherapy as 1st line where as the rest as 2nd line chemotherapy. Mean chemotherapy cycles are 5 (range 1-6). 17% of patients developed some form of toxicity. More than 50% patients responded well.

Discussion and conclusion: Docetaxel is an active agent in the management of breast cancer patients both locally advanced and metastatic cancer and also with poor prognostic features like high grade tumors, LVI, close margins or involved margins, negative receptor and positive HER 2 status. The toxicity is manageable and response rates are good with survival benefit.

OM-31

REVIEW OF ALL SKIN CANCER CASES PRESENTED TO ONCOLOGY DEPARTMENT, HUSM FROM JANUARY 2002 TO JANUARY 2008

¹W Yus Haniff WI, ¹Bhavaraju VMK, ¹Biswal BM, ¹Syed Ejaz S, ²Faisham, ³Mutum S, ⁴Anwar Hau

¹Department of Oncology, Nuclear and Radiotherapy, ²Department of Orthopaedic – Reconstructive Unit, ³Department of Pathology, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia. ⁴Department of Orthopaedic, Hospital Raja Perempuan Zainab II, 15586 Kota Bharu, Kelantan, Malaysia.

Objective: To analysis the management of skin cancers patients attending Oncology Department during the period of Jan 2002 to Jan 2008.

Materials and method: Review of all Oncology records of all skin cancer patients attending the outpatient department between 2002-2008. All cases were confirmed by biopsy. Types of cancer, surgical management, adjuvant management, treatment duration and follow up, patient demographic as well as final outcome were taken into comparison.

Results: A total of 61 cases of skin cancers (melanoma and non-melanoma types) were analyzed. The group consists of 32 males and 29 females with age ranging from 26 to 82 years old (median 60 years). Types of skin cancer presented were: 26 Squamous Cell Carcinoma (SCC), 19 Malignant Melanoma (MM), 8 Basal Cell Carcinoma, 3 Merkel Cell Carcinoma (MCC), 2 Malignant skin adnexal tumour, 1 Basaloid Carcinoma, 1 Malignant Trichelemlnal Tumour and 1 Mucinous carcinoma of skin. Follow up raranged from 2 months to more than 7 years. Currently only 10 cases are still on active follow up while 48 patients defaulted at some stage after 1st appointment and treatment. 3 patients died of diseases during treatment and follow up. Of 48 patients who were lost to follow up, 8 are still alive while 8 patients died .The rest however was not traceable. MM caused 6 deaths with SCC 2 deaths and 1 each for BCC, MCC, Malignant Skin Adnexal Tumor (Sebaceous Carcinoma). Total of 21 cases obtained complete response (34.4%), 4 partial response, 5 had stable disease while 17 had progressive disease (12 MM ,4 SCC and 1 MCC). Majority of progressive disease were MM (73%)

Discussion and conclusion: The skin cancers are divided into melanoma and non-melanoma cancer. Our series showed melanoma patients do badly compared to non-melanotic cancer patients. Radiotherapy and chemotherapy play major roles in achieving cure and preventing relapse in the form of primary treatment or adjuvant treatment.

OM-32

APOE GENOTYPE AND NEUROPSYCHOLOGICAL OUTCOME IN TRAUMATIC BRAIN INJURY: A PRELIMINARY STUDY

¹Rahida M. S., ¹Pieter, MS, ²Mohd Jamil, BHY, ³Faridah AR

¹Department of Neurosciences, ²Department of Psychiatry, ³Department of Chemical Pathology, School of Medical Sciences, Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Objective: To determine whether apolipoprotein (APOE) genotype influences neuropsychological outcome in patients with mild and moderate traumatic brain injury (TBI).

Patients and Method: Subjects were 19 patients (one female and 18 males, 25.79 ± 7.22 years) diagnosed with non-penetrating mild and moderate head injury based on the Glasgow Coma Scale at the time of admission and resuscitation. Blood samples were analyzed for the APOE gene utilizing the restriction enzyme method. Seven subjects had at least 1 APOE $\epsilon 4$ allele and were compared on neuropsychological measures (executive function, verbal learning and memory, verbal fluency, abstract reasoning, speed of processing and index of emotional distress) to those who were APOE $\epsilon 4$ negative at baseline (approximately 6 weeks) and 6 months post-injury. Both groups were matched on age, years of education and intelligence. Data were analyzed using a 2-way (APOE Genotype x Time) ANOVA with repeated measures on the second factor.

Results: There was a time effect for executive function (22.21 ± 15.28 vs. 13.58 ± 10.16 , $p=0.006$, $\eta^2=0.367$). No interaction or main effects were found for verbal learning and memory, verbal fluency, abstract reasoning, speed of processing and emotional distress index.

Discussion and Conclusion: While the sample size is small, the initial results seem to agree with the current findings that there might be no clear APOE genotype influence on the recovery curves of patients with mild and moderate TBI. An extension of this research to include a larger sample size and longer follow-up may further elucidate the understanding of the association of APOE genotype and neuropsychological outcome.

OM-34

THE PATTERN OF SUICIDE RECORDED IN IPOH GENERAL HOSPITAL

Mohammad Hafiz F, Emdadul Haque ATM

UniKL-Royal College of Medicine Perak, No. 3, Jalan Greentown, 30450 Ipoh, Perak, Malaysia.

Objective: To determine the trend of suicides recorded in Ipoh General Hospital (IGH), and to identify the demographic and other characteristics of suicide cases.

Materials and method: It was a retrospective record review study. Data on 110 completed suicides were obtained from the records of the Forensic Pathology Department of IGH autopsied during the period of January 2005 to December 2007. The data were then analyzed by using SPSS version 13.0.

Results: There were important race, sex and age differences among the suicide cases. Out of total 110 cases, 49.1% were Indian, followed by Chinese (36.4%), and Malay (9.1%). Victims who were unemployed contributed highest (36.5%) proportion, followed by physical worker (35.6%), and self-employed (19.2%). Hanging was seen to be the most common (54.6%) method, followed by organophosphorous poisoning (31.8%), and carbon monoxide (CO) poisoning (6.4%). Victims with CO poisoning were more likely to be Chinese and occupationally physical worker, but with organophosphorous poisoning were likely to be Indian. Jumping from heights was mostly chosen by the Chinese victims.

Discussion and conclusion: This study draws attention to the pattern of suicide among different racial and occupational groups. Further study can be done to determine the social and psychiatric factors associated with suicide and the magnitude of their effect in community and clinical settings.

OM-35

THE PREVALENCE OF DISABLED CHILDREN EXPERIENCING ABUSE IN MALAYSIA

Shamsul Amri S, Siti Hawa A, L Naing, Tengku Norbanee TH

Unit Kebajikan Perubatan, Hospital Universiti Sains Malaysia, Health Campus 16150 Kubang Kerian, Kelantan, Malaysia.

Objective: To determine the prevalence rate of disabled children being abused.

Subjects & Method: About 375 disabled children, aged between 13 to 19 years old, from selected special school and classes in Malaysia were interviewed regarding their abuse experiences. They were divided into three groups, namely student with visual problem (115), student with hearing problem (130) and student with learning problem (130). Their abuse experiences were accumulated using questionnaires specially design for that Objective. The questionnaire were validated and pretested.

Result: Approximately, 18.3% (95% CI: 11, 25) visually impaired children, 50.8% (95% CI: 42-59), hearing impaired children and 20% (95% CI: 13-27) learning problem children had been a victim of abuse.

Discussion & Conclusion: This study shows the existence of abuse amongst disabled children in Malaysia. It is essential to determine the risk factor in order to explain this phenomena and to find a solution.