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Glimpses of our Past Conferences

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POTENTIAL OF NURSING CARE USING KT (KUCHI-KARA TABERU) INDEX RADAR CHART FOR ELDERLY PATIENTS WITH DYSPHAGIA TO LIVE LIKE HUMAN BEINGS

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Aim & Background: Oropharyngeal dysphagia increases with age and can have devastating health implications, such as malnutrition and aspiration pneumonia. Elderly patients admitted to the ward E3 (mixed specialties) often have eating and swallowing problems. Here we assessed those problems of elderly patients with dysphagia on admission.

Subjects & Methods: Thirteen patients with dysphagia (age, 87.1±11.4 (mean±SD); body mass index (BMI), 17.8±3.1) were assessed by the Kuchi-Kara Taberu (KT or ingesting orally in English) index and malnutrition universal screening tool (MUST). The KT index consists of 13 items rated 1 (worst) to 5 (best) points by noninvasive tests, which was recently developed by Koyama et al. in Japan to comprehensively assess and intervene in dysphagia.

Results: The elderly patients with dysphagia admitted to the ward 3E had a trait of malnutrition and poor activities on the whole as shown in Figure 1. Out of 13 patients, 4 patients underwent percutaneous endoscopic gastrostomy (gastrostomy feeding), who had a significantly (p<0.05, unpaired t test) lower score of respiratory condition and higher score of MUST compared with those of the other patients (3.3±0.5 vs. 4.3 ±1.0 and 5.3±1.0 vs. 3.0±1.7). Continuing nursing care with the KT index enabled them to eat orally again.

Conclusion: It was suggested that nursing care using the KT index radar chart for elderly patients with dysphagia could improve quality of life, even after gastrostomy feeding is initiated. Such feeding support using KT index may be suitable for individual patients to live like human beings.

Figure 1: The mean values of 13 items comprising the KT index in 13 patients with dysphagia at admission are shown in a radar chart.

Biography

Yumiko Aruga is a Staff Nurse on the ward E3 of Nursing Department, National Hospital Organization Matsumoto Medical Center. She was a certified care worker in 2002 and got a BS degree in Nursing at Matsumoto Medical Association Nursing School, Matsumoto, Japan in 2006. She is mainly working in Elder Care. Her research interest includes Nursing care, Elder care, Oral care.

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THE HAND HYGIENE PRACTICE OF HONG KONG PEOPLE: A QUANTITATIVE STUDY

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Introduction: In 2003, the outbreak of severe acute respiratory syndrome (SARS) took 286 lives of Hong Kong people and eight of them were healthcare professionals. Since then, the Hong Kong government has established the Centre for Health Protection and has been promoting hand hygiene to Hong Kong people proactively over the last decade. The World Health Organisation (WHO) has also been advocating the importance of hand hygiene because it is an important measure to prevent the outbreak of communicable diseases in the community. Given that there are limited studies exploring the quality of hand washing among the general public as well as their hand hygiene practice in terms of duration of hand washing and common hand washing moments, these became the aims and objectives of this study.

Methodology: This was a quantitative study which was conducted in Jan 2018. A black box with a 20W ultra-violet light was used to assess the remaining fluorescent stains on both hands of participants after hand washing in the community and the stains were recorded in accordance with the anatomical structure of the hand.

Results: A total of 190 Hong Kong adults (M=94, F=96) were recruited. Among the eight hand hygiene moments, the majority of the participants washed their hands after handling vomitus or fecal matter (87%) and after using the toilet (73%). However, fewer participants did so before touching their eyes, nose and mouth (12%) and after touching public installations or equipment (17%). The mean of the duration of hand washing was 36.54 seconds (SD=18.57) and 165 (86.8%) participants performed hand washing for more than 20 seconds. The top three common missed areas of hand washing were the fingertips (48.1%), medial (30.5%), and back of the palm (28%). Multiple logistic regression showed that participants who have tertiary or above education tend to have one hand hygiene moment more than those who have below tertiary education (p=0.000, B=1.003). Thus, participants aged 30 tended to have five missed areas more than those aged below 30 (p=0.001, B=4.933).

Biography

Wong Sze Wing Julia is an EdD candidate of the University of Liverpool. She is a Registered Nurse as well as a Senior Lecturer of the School of Nursing in Tung Wah College, Hong Kong. She is also a fellow member of the Hong Kong College of Education and Research in Nursing. She has published a few papers in reputed journals and has been serving as a Reviewer of reputed journals. Her research interest includes Public Health, Quality of Life, Nursing Education.

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IMPLEMENTATION AND EVALUATION ON HIERARCHICAL MEDICAL SYSTEM OF HYPERTENSION AND DIABETES IN FUTIAN, CHINA

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Background: China is setting up a hierarchical medical system to solve the problems of biased resource allocation and high patient flows to large hospitals. However, it is in its early phase, and the overall effect is dissatisfied.

Objective: This study aimed to implement the hierarchical medical system of hypertension and diabetes in Futian, China, and evaluate the effect.

Methods: To establish the hierarchical medical system of hypertension and diabetes by series of measures: building regional medical association, promulgating hierarchical medical programme, taking the Futian hospital for prevention and treatment of chronic disease as the bridge, setting up a discipline alliance, enhancing the ability of health care, modifying two-way referral service process, information construction, and evaluated the overall effect of the hierarchical medical system.

Results: Hierarchical medical system of hypertension and diabetes in Futian has been established successfully since June 2016. The evaluation shown that the hierarchical medical system was running well, the priority registration, priority admission, priority examination, priority hospitalization service for the patients were implemented, and collaboration between general practitioners and specialists were significantly improved. The number of patients with hypertension and diabetes attending community health center increased by 18.2% and 26.9% compared with the same period before implementation of hierarchical medical system. The increment speed of standardized management for hypertension and diabetes patients were more than 3 times and 2.18 times compared with the same period before implementation of hierarchical medical system. There was 3057 patients' referral to the community health center from hospital, while there was no patients' referral to the community health center before June 2016.

Conclusion: The hierarchical medical system of hypertension and diabetes in Futian, China is satisfactory, which is a first and high quality model of hierarchical medical system in Shenzhen, and is worth extending to other place in China.

Biography

Dr. Wenru Chen is the director and doctor of Futian hospital for prevention and treatment of chronic disease, Shenzhen, China. His research interests now are related to the chronic diseases management and health policy. He has engaged in several research projects and published more than 20 papers on lifestyle behavior change, chronic diseases management and hierarchical medical system.

Dr. Hongwei Dong has been Graduated from China medical university and received the Ph.D degree of surgery. He had worked as surgeon at affiliated Hospital of China Medical University for many years, as vice president of the hospital at Shenyang, China, and joined Shenyang First Aid Center as the director. He is currently director of Health and family planning bureau of Futian, Shenzhen, China.

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MIGRAINE AMONG PRINCESS NOURAH BINT ABDULRAHMAN UNIVERSITY STUDENTS IN RIYADH, SAUDI ARABIA

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Objectives: To Estimate the prevalence of migraine among PNU students, in medical and other (non-health) colleges and to identify its common triggers, and assess its severity and effects on the students' life.

Materials & Methods: This is cross-sectional, questionnaire based study, of convenient sampling technique. 523 students out of 539 participated students were included. Participants who had two or more headaches in the last three months formed the headache group. Afterwards, two preliminary questions were applied to the headache group and participants with at least one affirmative response were asked to perform the validated ID-Migraine test.

Results: The mean age of the participants was 20.97±1.6 years; 448/523 students (85.7%) were screened positive for headache. Migraine was detected among 234/523 of the students (45%); 17% were medical and 55% were non-health colleges. Lack of sleep 89.3%, stress 74.8%, and menstruation 46.6% were the most triggering factors of migraine. This study showed significant association between migraine headache and studying in non-health colleges (P=0.001). In medical students, the median pain level was III (moderate) and migraine disability assessment score was I (little).

Conclusion & Recommendations: The prevalence of migraine among PNU students was high compared to other studies. Further studies should be carried out by neurologist for more knowledge about migraine among students' population.

Biography

Aroob Almoagti is a medical student at Princess Norah Bint Abdul Rahman University, Saudi Arabia.

August 2013 to current

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ACCUMULATION OF STABLE ~35-37KD ΔFOSB ISOFORMS IN THE REWARD SYSTEM OF CHRONIC DRUG ABUSERS: THE KEY FACTOR OF HIGH RELAPSE RATE?

Monika Heidemarie Seltenhammer[1], Ulrike Resch[2], Friedrich Altmann[3], Johann Sölkner[4] and **Daniele Ugo Risser[1]**

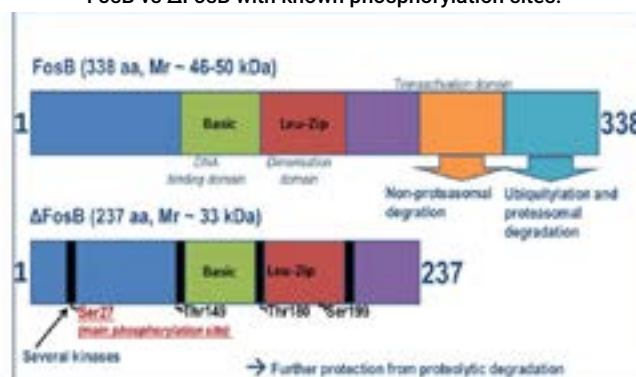1 Center for Forensic Medicine - Medical University of Vienna, Austria
2 Centre of Physiology and Phamacology - Medical University of Vienna, Austria
3 University of Natural Resources and Life Sciences, Austria
4 NUWI - BOKU, Austria

As a member of the Fos family proteins and belonging to the IEGs (Immediate Early Genes), the ~33kD transcription factor ΔFosB, is initiated by a wide range of effects such as drugs of abuse or other psychoactive substances, but also external stimuli of manifold nature. ΔFosB forms heterodimers with Jun proteins, to form active activator protein-1 (AP-1) complexes, binding then to AP-1 sites in the promoter regions of many neural genes. To date, several downstream target genes for ΔFosB have been identified, including NMDAR1, GluR2, Cdk5, and NF-kB, being involved in molecular pathways concerning addictive behavior. Chronically recurring exposures to stimulant interactions induce a displacement of the rather unstable ~33kD transcription factor ΔFosB by highly robust ~35-37kD isoforms; leading to consistent accumulation of these stable ΔFosB derivates particularly in the nucleus accumbens (NAc), a key region in the reward center of the brain, and hippocampus (HPC). These inert ~35-37kD ΔFosB derivatives linger there for several weeks, even after cessation of excitations. A fact seeming to be responsible for the development of sustained neuronal plasticity. Here, we demonstrate the presence of ~35-37kD ΔFosB isoforms in the NAc and HPC of chronic drug abusers via immunoblotting and immunohistochemistry. Moreover, this protein was characterized by means of mass spectrometry to elucidate potential additional phosphorylation sites, seeming to accelerate the factors stability. Our findings provide additional evidence of the potential impact of ΔFosB on its downstream targets, which are responsible for long-term effects and serious adaptations in the brain leading to addictive behavior.

Figure 1: Schematic presentation of full length FosB vs ΔFosB with known phosphorylation sites.

Biography

Monika Heidemarie Seltenhammer completed her DVM and PhD from VMU in Austria and Postdoctoral studies from Veterinary University of Vienna, Max Perutz Laboratories and Medical University of Vienna in Austria, where her core area of scientific work mainly consisted in Cancer Research (melanoma) and Pathology, but also Immunology, Neurology and Virology. She has received several honor and awards. She is a leading member of the scientific staff of Dr. Daniele Ugo Risser at the Department of Forensic Medicine of the Medical University Vienna, where she specializes in Neurobiology and Addiction Behavior.

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ASSOCIATIONS OF LONG NON-CODING RNAS AND LEUKEMIA: A META-ANALYSIS

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Accumulating evidences support that the expression and function of long non-coding RNAs (lncRNAs) associated with blood cancers development and progression. Here, we evaluate the aberrant expression of lncRNAs in the prediction of leukemia risk by a meta-analysis of the 16 published studies involving 697 healthy controls and 781 individuals with leukemia. The combined analysis showed that lncRNAs was associated with the increased risk of leukemia (OR= 89.83, 95% CI: 29.50-273.55 P<0.00001). Quantitative analysis of single lncRNA showed that low expression of lncRNAs-H19 (OR= 112.9, 95% CI : 24.08−529.39), the overexpression of DLEU1(OR= 74.41, 95% CI: 1.08-5104.09), DLEU2 (OR=76.14, 95% CI:1.53−3782.4), LUNAR1(OR=291.65,95% CI:15.66−5433.21), P15AS (OR=87.25, 95% CI:7.72−986.52) and HULC (OR=201.97, 95% CI: 24.96−1634.33) were associated with the increased risk of leukemia. Moreover, the abnormal expression of LUNAR1, p15AS, HULC were related to acute leukemia, while DLEU2 and H19 abnormally expressed were related to chronic leukemia patients. In addition, MLL-r acute leukemia related to 7 lncRNAs (OR= 14.97, 95% CI: 5.37-41.75). These results identified strong associations between lncRNAs abnormal expression and leukemia. Some lncRNAs may be novel diagnostic markers for leukemia.

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LNCRNA-ENST00000414355 REGULATES CELL PROLIFERATION AND APOPTOSIS IN ACUTE MYELOID LEUKEMIA

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Objective: Increasing evidence suggests that long non-coding RNAs (lncRNAs) are involved in a variety of physiological and pathophysiological processes of cancer, but whether lncRNAs can serve as an important role in acute leukemia is still unclear. This study was designed to investigate the effect of LncRNA-ENST00000414355 in regulating cell proliferation and apoptosis in acute myeloid leukemia.

Methods: HL-60 K562 THP-1 and U937 cells were transfected with si-ENST00000414355 and si-NC, respectively, MTT assay was performed to determine the proliferation, cell apoptosis was assayed by flow cytometry using Annexin V-FITC/PI. Bone marrow (BM) samples were obtained from 10 AML patients and five healthy volunteers in Guangzhou First People's Hospital. The LncRNA-ENST00000414355 expression of the BM samples was detected using qPCR.

Results: We found that the expression of LncRNA-ENST00000414355 in AML cells was significantly knock-down after 72 h treated with si-ENST00000414355. Down regulation of LncRNA-ENST00000414355 in AML cell lines HL-60 K562 THP-1 and U937 inhibited cell proliferation, and induced cell apoptosis. LncRNA-ENST00000414355 expression was markedly up-regulated in AML patients' bone marrow samples comparing with the healthy volunteers' ($P < 0.01$).

Conclusions: Results indicated that LncRNA-ENST00000414355 level up-regulated in AML and regulates cell proliferation and apoptosis.
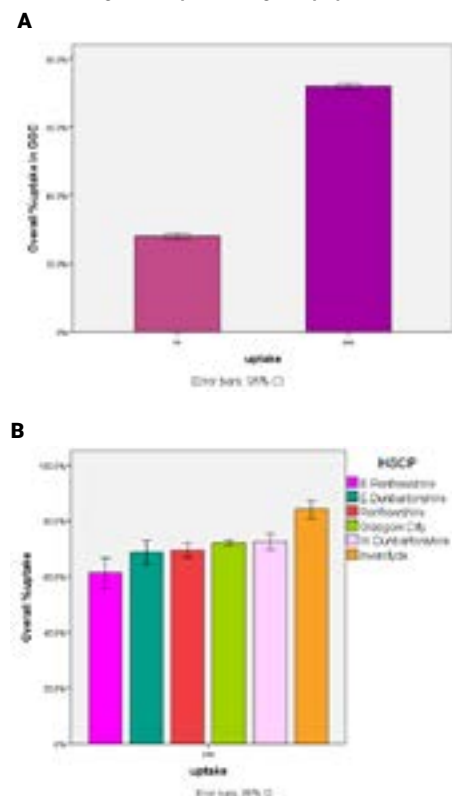
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VARIATION IN UPTAKE OF HEALTHY START FOOD VOUCHERS IN THE SIX HEALTH AND SOCIAL CARE PARTNERSHIPS WITH THE GREATER GLASGOW AND CLYDE HEALTH BOARD

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This study assessed the difference in uptake levels of healthy start food vouchers, a means tested benefit that aims to support low income families afford nutritious food, between 6 health and community partnerships (HSCP) in greater Glasgow and Clyde (GGC). Having observed variation our secondary aim was to explore possible reasons for this difference. Routinely collected healthy start data for the months of August to September 2017 was obtained from the UK Department of Health. After data cleaning and organization postcode sectors were matched up with their corresponding HSCPs in GGC. Analysis was then carried out to look for associations between uptake rates and various HSCP area-based characteristics. We were able to find for the first time large variations in uptake rates within GGC. Chi-square test showed a significant association between uptake and HSCP area. Trend analysis of uptake with area deprivation and resource allocation was also significant. Objective analysis of scatter-plots suggested that uptake increased with deprivation and resource allocation of the HSCP. Significant trends were found and the observed patterns suggested that the relationship between uptake rates and HSCP area is more complex than the geographical characteristics alone. We conclude that in order to fully understand the observed variation a more qualitative approach is required. We recommend that future studies need to look at the difference in management, awareness and experience between maternity teams in HSCPs. Subsequent studies would also be advised to look at larger numbers of HSCPs in order to objectively conclude if the trends seen here are present across the country.

Figure 1: (A) Uptake rates by GGC and (B) HSCP. 'yes' is the percentage of population receiving. 'no' is percentage of population not receiving.

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THE IMPACT OF MAJOR LIFE EVENTS ON PHYSICAL ACTIVITY

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Introduction: Regular physical activity (PA) can prevent and manage chronic diseases yet physical inactivity remains a global public health concern. Determinants of PA are complex and vary between men and women. Specifically, the impact of intrapersonal factors such as how major life events impact PA behavior is less understood. Therefore, the purpose of this study is to examine the effects of life events on adults' PA levels.

Methods: Nationally representative panel data from the Americans' changing lives survey (1986-2012) were used to analyze the impact of major life events on age-based trajectories of PA separately for men and women using latent growth curve models.

Results: Among women, death of a parent or retiring was associated with greater PA at baseline. When examining across time among women, experiencing death of a parent or close friend, entering into marriage, or moving were all associated with greater PA while entering in to retirement was associated with less PA as women aged. Among men, becoming a caregiver was associated with greater PA at baseline, and experiencing death of a close friend or entering into marriage were associated with more PA as men aged.

Discussion: Findings of this study suggest that major life events do affect PA behaviors at varying levels for men and women. Considering the impact of life events is important in planning effective health promotion interventions to increase PA, and it appears to be important to consider these impacts separately for men and women.

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KNOWLEDGE AND BEHAVIOR OF SAUDI FEMALE UNIVERSITY STUDENTS TOWARDS SELF-MEDICATION.

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Background: Self- medication is considered a fairly common practice worldwide. A recent study in the UK showed that an estimated of 20% of the population choose to self-diagnose themselves versus seeking medical advice. Self-medication is considered a fairly common practice. It has a harmful side, since it might lead to wasting of resources ,development resistance, drugs reactions or dependency, misdiagnosis, accidental overdoses and addiction development.

Methods: Cross-sectional based study conducted to University students aged 18-26 through a self administered questionnaire to collect the data from all college students with no exception over 6 months.

Results: A total sample size of 500 students, their mean age was from 25-21, most of them were from science faculty 191 (38.8%),bachelor level of education was the most 416 (83.2%),single students made the mass of the study 461 (92.2%). A 413 (82.6%) of total 500 have tried Self-Medication,189(37.8%) choose drugs, most common used was Analgesic 227(45.4%) ,the most frequent symptoms was stomach pain and headache 150 (30%), 145 (29%) took the medication from their relatives, there was illness improvement among most of them 363 (72,6%),while least 21(4.2%) went to ER due to it. Most of the responses regarding health care system were positive.

Conclusion: We found that Self- Medication practice is highly prevalent in our University, even though most results of their treatment was improving, the 4% who went to ER is enough indicator that this act is dangerous and thus we need to do more awareness activities regarding it.

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ARE FACTORS THAT PROMOTE QUIT ATTEMPTS ON FIRST VISIT PREDICTS SUCCESS AT 1-MONTH, 3-MONTH AND 6-MONTH FOLLOW-UP BETWEEN SMOKERS TREATED WITH STANDARD SMOKING CESSATION PROGRAMME AND THE MODIFIED UK STANDARD TREATMENT PLAN?

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Background: Factors contributing to successful quitting are dynamics in nature and difficult to predict. This study attempted to identify factors that promote quit attempts at first visit able to predict success rates among smokers treated with standard smoking cessation treatment programme and the modified UK standard treatment plan from NHS Centre for Smoking Cessation and Training (NCSCT).

Methods: This was a double arms cluster-randomized control trial with follow-up to 6-months. All 19 public hospitals in Malaysia that offered quit smoking services (QSS) were randomized in to intervention (n=10) and control (n=9) groups. The smokers were required to complete self-administered questionnaires on their first visit and were followed up at 4-week, 3-month and 6-month. The health staff in the intervention group were trained with the UK adapted training module to treat smokers (n=330) and the control group continued with the standard treatment programme (n=172). The association between both groups was analyzed using univariate analysis. Multiple logistic regression backward elimination was carried out to assess the repeated measures treatment effect of quitting.

Results: There was no significant difference between intervention and control group in most demographic and characteristics of smoking habits such as mean age, education level, marital status, perceived health problem and age started smoking. However, there were significant differences on the first cigarette of the day (P=0.05a), urges to smoke (0.020a), methods of quitting (0.018a) and CO level at base line (0.0234d). Interestingly, there was no significant difference on their motivations and confident levels to quit smoking between both groups even though the control group reported they were more worried about their future health (p= 0.030a), concerned about the effect of cigarettes smoke to their family (p<0.0001a), smoking is expensive (p=0.001a), family wanting them to stop smoking (p<0.0001a), family nagging (p=0.001a), ashamed to be a smoker (p<0.0001a), had a family who had quitted successfully (p= 0.017a) and friends encouragement to quit (p=0.002a). The intervention group showed higher success rates with carbon-monoxide validated at 4-week (p=0.013a), 3-month (p<0.0001a) and 6-month follow-up (p<0.0001a)

Conclusions: Factors that promote quit attempts at first visit may not predict successful quitting at 4-week, 3-month and 6-month follow-up.

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THE APPLICATION OF EPIDEMIC DYNAMICS ON THE PREDICTION AND PREVENTION OF HAND-FOOT-AND-MOUTH DISEASE (HFMD) INDUCED BY EV71 VIRUS

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Objective: The study aimed to develop an epidemic dynamics model for the transmission and prevention of hand-foot-and-mouth disease (HFMD) induced by EV71 virus.

Methods: A SEIR model for susceptible, exposed, infected and recovered HFMD patients was created based on research results and actual incidences of HFMD in China using mathematical and epidemic dynamical methods. Time-fitted curves determined by the relevant parameters were adopted to simulate the epidemic process and the effectiveness of the model with and without an intervention was evaluated.

Results: Comparison of the results of data fitting to the model for HFMD cases occurred in China from 2009 to 2015 with the actual incidence showed that the model fitted well to the maximum number of infected HFMD patients and that the simulated trend of epidemic process was identical to that of the actual situation. Implementation of intervention measures was demonstrated to effectively delay the onset of HFMD epidemic peaks and reduce the number of incidence during peak seasons. Finally, we make use of the parameter values of the year 2013 and 2014 to simulate and forecast the number of patients of 2015, and the predictive results inosculate well with the real-world situations.

Conclusion: The model created in this study is suitable for simulating the spread of HFMD in China and may be used to evaluate the effectiveness of relevant intervention and preventive measures.

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UTILIZATION OF ANTIDEPRESSANTS IN CROATIA: IS DEPRESSION UNDERDIAGNOSE IN PRIMARY CARE?

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[2]Teaching Institute of Public Health of Split and Dalmatia County, Croatia
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[4]Private pediatric practise, Croatia

Background: The aim was to determine the effect of antidepressant outpatient consumption on the rate of hospitalization for depression and to explore the role of family physician in the early recognition and treatment of depression.

Methods: Using the WHO anatomical-therapeutic-chemical classification/defined daily doses (ATC/DDD) methodology, the number of DDD was calculated from data collected from all Zagreb pharmacies on the number and size of drug packages from 2001 to 2010. The rationality of prescribing was evaluated by use of the Eurostat ratio indicators and the DU 90% method. Hospitalization data were collected for every patient hospitalized for depression.

Results: Outpatient utilization of antidepressants increased by 90% (11,4 DDD/TID vs. 20,59 DDD/TID). The highest rise was recorded in the consumption of selective serotonin reuptake inhibitors (SSRI) by 148%, with an increased proportion of sertraline and fluvoxamine. Consumption of nonselective inhibitors of monoamine reuptake was decreased by 68%. A rise was recorded in the consumption of mirtazapine and venlafaxine in particular. In Zagreb in 2010, even 6 of 8 antidepressants within drug utilization 90% (DU90%) segment were from the SSRI group. The anxiolytic/antidepressant ratio decreased from 6.45 in 2001 to 2.55 in 2010. The rate of hospitalization for depression has significantly increased for 50%.

Conclusions: Although the overall outpatient utilization of antidepressants increased during the study period, the rate of hospitalization for depression increased as well. The decrease in the utilization of anxiolytics with symptomatic action and the increased utilization of antidepressants with etiologic action points to improved psychopharmaceutical prescribing quality. Continuous education of primary care physicians in early detection and treatment of mild to moderate depressive disorders is required. Introduction of a questionnaire for early recognition of depression symptoms at the primary healthcare level would be highly useful. Depression is underdiagnose in primary care; despite improvement observed in the prescribing quality, continuous education of GP's in early detection and treatment of depression is required.

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FACTORS HINDERING ACCESSIBILITY OF QUALITY MEDICO-LEGAL SERVICE IN SECURED DIAGNOSTIC CRIME IN WESTERN KENYA

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Globally, regionally and local population health suffer from significant number of evidence contamination, which remains inadmissible in jurisprudence thus, major challenges among forensic investigators and population health. In given secured crime scene triangle, (History / testimony, physical evidence and victim/ corpse), most investigators ignore admissible evidence as indicated by witness, geographical features or, anatomical positions of the victim scene, hence provide evidence based on current events on victim, with limited reconstruction of evidence content on scene, thus contaminating valuable medico-legal evidences and render them inadmissible before a common law. Traditional forms of forensic investigations remain key pillar, which provide access to look at crimes objectively and uncertainty on measured results. Determinants of increased evidence contamination at crime scene in Sub-Saharan Africa (SSA) are aimed at hiding political and social cultural differences among population health, hiding patient mismanagement, and enhancing unavailability of valid data from the crime scene to testify. Also, prolonged limited access to grant witness immunity and limited access to affordable and reliable forensic training in middle level in medical on standard procedure of management of quality evidence at crime scene remains a major challenge on implementing quality medico-legal issues. Failure to utilize quality standards on evidence reconstruction, have ignited severe criticism in forensic science. Chain of custody on secured evidence and traceable at all times remains unachievable in western Kenya. Hence, need for study using sampling and cross sectional designs, by purposive sampling, research tools used were survey and interviews on forensic service providers. Exploring study, a sample size of 160 respondents was used. Result showed, majority) 84%, (150) respondents, demonstrated that evidence contaminations are aimed at hiding real evidence, thus inadmissible. We also established that, prevalence of witness reconstruction among forensic experts providing forensic services are trained on criminal investigation and forensic science, those on contract are low compared to forensic experts, permanently employed, with prevalence risks of OD (0.34, 2.22) and relative risk of RR (1.5) signifying, that more we employ unsuitable and unreliable forensic experts, higher we increase harmful effect on population health, study revealed that, over 85% (136) service providers have no a dear on witness grant immunity with RR (3.6).

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EVIDENCE FOR A RELATIONSHIP BETWEEN A COMPOSITE LIFESTYLE SCORE AND RISK OF HIGHER CAROTID INTIMA- MEDIA THICKNESS: IS THERE A LINK TO OXIDATIVE STRESS?

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Lifestyle behaviors have been closely linked to the progressive cell damage associated with oxidative stress (OS) and the development of cardiovascular disease (CVD). Early detection of lifestyle-linked OS may therefore be useful in the early identification of prodromal disease. To test this hypothesis, this study assessed the relationship between a comprehensive redox balance lifestyle score (RBLS) and carotid intima-media thickness (CIMT), a recognized marker for CVD, and plasma biomarkers of OS. In a cross-sectional study design, 100 apparently healthy middle-aged participants were asked to complete a comprehensive lifestyle questionnaire, followed by DXA scanning, CIMT ultrasonography, and blood collection. The RBLS was composed of lifestyle components with pro- and antioxidant properties with a higher score indicative of lower oxidative activity. Multiple linear regression and logistic regression analysis were performed for statistical analysis. The RBLS was significantly associated with the risk for increased CIMT that was independent of conventional CVD risk factors (($x2(9)$ = 35.60, P ≤ 0 001). The adjusted model explained 42.4% of the variance in CIMT. Participants with RBLS below the median were at significantly increased risk of higher CIMT compared to participants with RBLS above the median (OR=3.60, 95% CI: 1.19−10.88, P = 0.023). Significant associations were also observed between the RBLS, plasma total antioxidant capacity (TAC) (r: 99 = 0.28, P=0.006), hydroperoxide (HPX) (rs: 99=−0.28, P=0.005), TAC/HPX ratio (r: 98 = 0.41, P ≤ 0.001), ã-glutamyltransferase (r: 97=−0.23, P=0.024), uric acid (r:98 = −0.20, P=0.045), and inflammatory C-reactive protein (rs: 97=−0.25, P=0.012) and interleukin-1â (r 97= −0.21, P=0.040). These findings highlight the importance of identifying the collective influence of lifestyle behaviors on OS activity and its potential to remodel the vascular endothelium.

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NUTRITIONAL KNOWLEDGE, ATTITUDE AND PRACTICES AMONG PEOPLE LIVING WITH HIV IN ARMENIA: A CROSS-SECTIONAL SURVEY

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Background: It is acknowledged that there is a strong relationship between HIV and nutrition. Malnutrition can be caused by reduced appetite, depression, and common opportunistic infections among people living with HIV, such as oral thrush. Malnutrition contributes to immunosuppression and quicker progression to the stage of AIDS. Proper nutrition leads to stronger resistance to the disease and increases compliance to and effectiveness of antiretroviral treatment.

Aim: This study aims to explore nutrition-related knowledge, attitudes, and practices (KAP) of people living with HIV in Armenia. The specific research questions are the following: What is the level of nutrition-related KAP among PLHIV in Armenia? Is there an association between nutrition-related knowledge, attitudes, and actual practice among PLHIV in Armenia?

Methodology: A quantitative cross-sectional survey study design was utilized with interviewer administered questionnaire. The surveyed population included adult PLHIV. Convenience sampling approach was used to recruit PLHIV in the survey. The survey questionnaire has been developed based on the questionnaires used in previous studies conducted on the topic of nutrition internationally and in Armenia.

Results: During the period of data collection 111 PLHIV were surveyed. The mean percent knowledge score of nutrition was 68.8%, while the mean percent attitude score was 71.2%. Simple linear regression analysis showed statistically significant associations between the mean cumulative practice score and spending on food (p=0.036). The analysis also showed marginally significant association between the mean cumulative practice score and the employment status of the study participants (p=0.098), with employed participants being more likely to have higher cumulative practice score than unemployed ones.

Conclusion: This was the first study to explore nutritional knowledge, attitude and practices of people living with HIV in Armenia. The study found high level of knowledge and positive attitude, but inadequate consumption of certain food groups among people living with HIV. Larger-scale investigations should be conducted to explore the nutrition-related KAP and nutritional status of people living with HIV in Armenia with the focus on barriers to healthy nutrition in this population.

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ENCOURAGING POLICY, SYSTEMS AND ENVIRONMENT CHANGES TO SUPPORT HEALTHY LIFESTYLES THROUGH ACADEMIC-COMMUNITY PARTNERSHIPS

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Non-communicable diseases (NCDs) remain a strong public health challenge, having impacts both in terms of human suffering and socioeconomic harm. NCDs are the leading cause of death globally, and account for greater than 40% of premature deaths in those under the age of 70, with the greatest impact occurring in low-to middle-income countries. To address these issues, a culture of health must be created, targeting individuals where they live, work and play. The purpose of this study was to evaluate the effectiveness of a community-based wellness program offered by a local grassroots coalition in a poor, underserved, rural, Midwest, largely Hispanic county. Monthly health screenings and education as well as referrals to local resources are provided at a variety of sites (manufacturing, low-income housing, service, and faith-based) to address the multiple determinants which underlie chronic disease development. Additionally, the coalition provides feedback to the sites concerning health needs of the population. An academic-community partnership between a nurse researcher and the coalition was created with the support of a clinical and translational sciences grant to collect information concerning policy, systems and environmental changes (PSE) secondary to this program. Multiple PSE changes have been noted as documented by qualitative data and quantitative scores on the CDC community health evaluation and group assessment (CHANGE) tool. This program is reaching vulnerable population and creating PSE changes supporting healthy policies across all sites and the community including instituting tobacco free policies, making healthy food options cheaper, and creating options for physical activity.

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BUILDING A MODEL FOR HEALTH PROMOTION WITH OLDER ADULTS: A NURSE GUIDED PERSONALIZED INTERVENTION

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Non-communicable diseases (NCDs) and risky lifestyle behaviors challenge healthcare systems worldwide; an increasing elderly population compounds this challenge. NCDs are the leading cause of death and disability globally, accounting for 3/5 deaths worldwide, and more than half of the global disease burden. The challenge is to keep the growing ageing population healthy, functional, and independent by delaying/ preventing disease development or better managing existing diseases. As health care systems place greater emphasis on health promotion/disease prevention, the active involvement of primary care providers including physicians and nurses is vital. Building the capacity of health systems and health workers to respond effectively to NCDs and ensuring access to needed community resources and supports, can support healthy ageing. Health risk appraisals with feedback (HRAFs) are readily available and widely used tools which can support healthy ageing. They collect data concerning the multiple factors affecting the ability of individuals to be healthy, allowing for development of personalized prevention plans which better meet the needs of patients as they attempt to change lifestyle behaviors. This study examined advanced practice nurse (APN) perceptions/ practices concerning use of HRAs during wellness visits. Results indicated that APNs agreed it is important to collaboratively identify risks and develop a personalized prevention plan, but only a small percentage use data such as that generated by HRAs to do so. This study informed development of an APN intervention using HRAs, home/social assessments, and monthly follow-up support to enhance health promotion efforts with ageing adults visiting a community-based clinic for care.

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Preventive Medicine & Public Health

COMPARISON OF THREE SAMPLE SIZE ESTIMATION METHODS FOR NON-INFERIORITY VACCINE TRIALS WITH MULTIPLE CONTINUOUS CO-PRIMARY ENDPOINTS

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Combination vaccines have been extensively used for decades and bring together the issue of intersection-union. To make up for the reduction in statistical power at the study level, researchers have to increase the study sample size. In view of the nature of immunogenicity variables, we use the geometric mean concentration of immune response after vaccination as immunologic endpoint and compare three sample size calculation methods: the inflation factors method, the incrementing method and the Bonferroni correction method when there are multiple continuous co-primary endpoints. The parameters are set according to the actual situation of combination vaccines and the simulation results were used as reference. The present study demonstrates that the incrementing method, the Bonferroni corrected method and the inflation factors method are all available when the effect size of each endpoint is comparable and there is no or weak correlation between each endpoint. When there is a valid difference of effect sizes among endpoints, the incrementing method performs better.

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ASSESSMENT OF IMMUNIZATION SESSION PRACTICES IN PRIMARY HEALTHCARE CENTERS - WASIT PROVINCE, IRAQ, 2016-17

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Background: Annually, vaccines prevent more than 2.5 million child deaths globally. WHO and UNICEF estimates of immunization coverage in Iraq in 2016 revealed 63% for DTP3 and 66% for MCV1. Wasit is among governorates with a large number of under-immunized children, opening the door for many future outbreaks. Immunization session practices (ISPs), when maintained of high-quality, can ensure safer and more effective vaccination as well as higher coverage rates.

Objectives: The main objective is to assess ISPs in primary healthcare centers (PHCs) in Wasit province.

Methods: We conducted this cross-sectional study on 24(44%) PHCs in Wasit province were selected by simple random sampling. Based on WHO and the national guidelines, checklists were developed to assess 58 ISPs that were grouped into seven domains: vaccine and diluent management, cold chain management, session's equipment, communication with clients and caregivers, vaccine preparation and administration, card review and registration and waste management. The score (out of 100%) was calculated for each domain in all selected PHCs, and then the average for all domains was calculated in each PHC. The assessment was made by direct on-job observation of immunization sessions, through a single visit conducted to each PHC.

Results: The range of PHCs' ISPs score was 52-78%; with a mean of 67% (±8%). The highest scores were for the following domains session's equipment (88%), waste management (82%) and card review and registration (81%). The least achieving domains were communication with clients and caregivers (36%) and cold chain management (38%). Vaccine preparation and administration was scoring 69%, whereas the score for vaccine and diluent management was only 50%.

Conclusion: ISPs practiced in PHCs in Wasit province were far from the standard. National expanded program on immunization should work on raising the capacity of vaccinators, particularly their communication skills with the clients and caregivers and the management of vaccines and cold chain.

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EFFECT OF REMINDING PARENTS ON VACCINATION DATES USING MOBILE SHORT MESSAGES ON THE ROUTINE VACCINATION COVERAGE OF INFANTS IN AL RESAFA-BAGHDAD, 2015-2016

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Introduction: Vaccination is one of the most successful and cost-effective public health interventions. Public confidence in immunization is critical to sustaining and increasing vaccination coverage rates and preventing the outbreaks of vaccine preventable diseases (VPDs). New innovative methods involving technologies need to be employed to increase the vaccine coverage. Technology use is widespread by patients and providers including text message, email, internet, social media and electronic health records.

Objectives: To assess the effect of reminding parents on their children's vaccination dates using short message system (SMS) on the coverage rates of vaccines in the Primary Healthcare Centers (PHCs) in Baghdad, Iraq, 2015-2016.

Methods: We conducted this interventional study in six PHCs that were selected by simple random sampling technique from all PHCs in Resafa side of Baghdad of 4.8 million inhabitants. All infants aged less than one year who missed any of the vaccines enlisted in the national immunization schedule in these PHCs were considered defaulters and included in the study. In three PHCs, the parents of those children received SMS reminders while the children's in the other three PHCs were left for the routine defaulter tracing practices.

Results: There were 1299 defaulter children in the six PHCs during the study period; 625 infants were in the intervention PHCs and 674 infants in the non-intervention PHCs. Prior to the intervention, there was no significant difference in the vaccines' coverage between the two groups. After the intervention, the coverage rates among the intervention versus non-intervention groups were: OPV1 (67.1% vs. 42.9%; $p<0.001$), OPV2 (58% vs. 47.1%; $p<0.0001$), OPV3 (67.4% vs. 31.9%; $p<0.001$), Penta1 (67.1% vs. 42.9%; $p<0.010$), Penta2 (67.4% vs. 31.9%; $p<0.001$), and Measles (69.6% vs. 21.6%; $p<0.0001$), respectively. The average cost per respondent defaulted infant was US$ 0.3

Conclusions: The use of SMS in the PHCs to remind parents with defaulters' infants proved effective in improving the vaccination coverage rates.

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EPIDEMIOLOGICAL CHARACTERISTIC OF FATAL DOMESTIC INJURIES, SOUTH PROVINCES (BASRA, MISAN, MUTHANA, THI-QAR), IRAQ, 2010-2015

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Background: Fatal injuries within the home are a leading cause of death and permanent disability worldwide and are globally recognized as a public health priority. About 16,000 people die from injuries every day worldwide. One third of all injuries happen within home and it is environment. This study is conducted to describe the epidemiological characteristics of fatal domestic injuries (FDI), identify the mechanism and estimate the incidence, South provinces (Basra, Misan, Muthana, Thiqar), Iraq, 2010-2015.

Methods: A cross sectional study was conducted on all fatalities reported from the coroner offices in four south provinces for the period of 2010-2015 as part of Iraqi Injury Surveillance System. The surveillance form included detailed data on the demographics, injury circumstances and injury mechanisms. Populations' data were obtained from Ministry of Planning.

Results: The number of FDI during this period was 3,920 with an average annual incidence of 13.2/100,000P. FDI represented 22.7% of total FDI. The incidence of FDI has decreased from 16.7/100,000P in 2010 to 12.6/100,000P in 2015. The female to male ratio was 1.1:1 and 44.4% occurred at the age group 10-29 years. The highest incidence 32.1/100,000P was recorded at the age group 30-49 years. About 57.7% were unintentional with average annual incidence 7.5/100,000P and 52.9% occurred during 7 am-2 pm. The main causes of FDI were: burn (30.9%), electric injury (19.8%), gun fire (10.5%), and fall (4.3%) with average annual incidence 3.9, 2.2, 1.3, 0.4/100,000P respectively. The highest average annual incidence was reported in Misan (19.4/100,000P) governorate, while the lowest was in Basra (11/100,000P). About 89.5% arrived by other vehicle rather than ambulance and 62.4% reached within 24 hours.

Conclusions: Injuries should receive similar importance as communicable and non-communicable diseases. A multi-disciplinary prevention programs for FDI should be established in order to prevent and control injuries particularly and Creating safer and supervised home environments.

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FATAL INJURIES AMONG CHILDREN UNDER FIVE YEARS, SOUTH PROVINCES (BASRA, MISAN, MUTHANA, THI-QAR), IRAQ, 2010-2015

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Background: Child injury is a growing but preventable global public health problem. For every person killed by injury, 30 people are hospitalized and 300 are treated in emergency rooms that may live with varying degrees of disability. Every day >2,000 children die from injuries. This study is conducted to describe the epidemiological characteristics, estimate incidence and identify mechanism of fatal injuries (FI) among under five years' children (U5) in four south provinces (Basra, Misan, Muthana, and Thiqar), Iraq, 2010-2015.

Methods: This cross sectional study was conducted on the data obtained from Iraqi Injury Surveillance System. The mortality part of the injury surveillance is a population based involving the coroner offices in four south provinces (Basra, Misan, Muthana, and Thiqar), Iraq. U5 population data were obtained from Ministry of Planning.

Results: The total number of reported U5 FI during this period was 1,022 with an average annual incidence of 24.7/100,000 U5 population (P). It represents 22.2% of FI among U5 and 1.4% of total FI of all ages. The incidence of FI increased from 17.1/100,000 U5P in 2010 to 28.7/100,000 U5P in 2015. Male to female ratio of FI was 1.6:1 and 28.9% occurred at the age of two years. About 50.1% occurred at home. 79.1% were unintentional with average annual incidence 17.5/100,000 U5P, 63% occurred during 6 am-3 pm. The main causes of FI were: road traffic accidents (22.6%), drowning (19.8%), burn (16.9%), electric shock (9.6%), fall (7.3%) and explosions (2.9%). The highest average incidence was reported in Muthana (54.2/100,000U5P) and the lowest was reported in Basra (8.7/100,000U5P) governorate.

Conclusions: The increasing incidence of FI is the tip of the iceberg which indicates that every year thousands of U5 are injured and hundreds end with disability. Public health officials need to develop a comprehensive program to control injuries among young children particularly the traffic and home injuries.

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Preventive Medicine & Public Health

EPIDEMIOLOGICAL PROFILE OF HEMOPHILIA IN BAGHDAD, IRAQ, 2016

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Background: Hemophilia is an X-linked bleeding disorder that mainly affects males. Globally, there are about 400,000 people with hemophilia; only 25% of them receive adequate treatment. In developed countries, life expectancy of hemophilia patients is more than that in developing countries. This study was conducted to describe epidemiological characteristics and estimate prevalence, incidence, and their trends among hemophilia patients in Baghdad, Iraq, 2007-2016.

Methods: In this cross sectional study we conducted a desk review of the records of all hemophilia patients resided in Baghdad and registered in the four hemophilia treatment center during 2007-2016. Baghdad population data was obtained from Ministry of Planning.

Results: The total number of the registered hemophilia patients resided in Baghdad was 639. The prevalence of hemophilia had increased from 3.6/100,000 population in 2007 to 7.9/100,000 population in 2016. Also, the incidence had increased from 8.4/100,000 live births in 2007 to 16.3/100,000 live births in 2016. Only one death was reported among the patients in 2016. Hemophilia A constituted 74.6% with a prevalence of 7.9/100,000 population and the remaining had hemophilia B with a prevalence of 2.0/100,000 population. The mean age of all hemophilia patients was 19.3±14 years, and only 22.7% were ≥30 years old. Severe hemophilia represented 63.4%. About 50% of the patients descended from consanguineous marriages and 69.0% had positive family history of hemophilia. The percentage of patients who attended university was 23.6% and that of patients who did not attend school or were illiterates was 7.6%. Among patients who were ≥18 years; more than half of them (59.6%) were married, and 34.2% of them were unemployed. Target joints were found among 45.8% of patients and 28% were on prophylactic therapy.

Conclusions: The prevalence and incidence of hemophilia in Baghdad was doubled in 10 years' period. We recommended establishing an electronic National Registry of Hemophilia and enhancing universal coverage with prophylactic treatment.

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PREVALENCE AND SEROCONVERSION OF VIRAL HEPATITIS B AND C AND HIV AMONG HEMOPHILIA PATIENTS IN BAGHDAD, IRAQ, 2016

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Background: Hemophilia is an inherited bleeding disorder caused by a deficiency of either factor VIII (hemophilia A) or IX (hemophilia B). Treatment with intravenous replacement of these factors and blood carries the risk of transfusion transmitted viral infections. We performed this study to estimate the prevalence and seroconversion rates and identify risk groups of hepatitis C (HCV), hepatitis B (HBV) and human immunodeficiency virus (HIV) infections among hemophilia patients in Baghdad City, Iraq, 2016.

Methods: We conducted this cross sectional study by reviewing records of all hemophilia patients resided in Baghdad in 2016 and registered and received treatment in the four hemophilia centers in Baghdad. All hemophilia patients are annually screened for anti-HCV antibody, HBsAg and HIV antibodies. Positive samples are sent for confirmation at the Central Public Health Laboratory and the results are reported in the patients' records.

Results: The total number of registered hemophilia patients in Baghdad in 2016 was 639. There were 150 (22.9%) patients with HCV infection, six (0.9%) with HBV infection, and only one patient (0.2%) had HIV infection. The seroconversion rate for HCV was 8/1000 and for HBV was 1.7/1000. The median period between birth and acquiring HCV infection was 17 (IQR=24) years, and for HBV was 11.8 (IQR=9.4) years. Binary analysis, revealed the following statistically significant risk factors ($P<0.05$) for acquiring viral hepatitis infection: age, severity of hemophilia, presence of inhibitors, type of treatment, number of treatment products used and presence of target joints. After applying logistic regression analysis, the significant independent risk factors were: age (14-18years: OR=4.03; 95%CI: 1.25-12.94), (19-44 years: OR=18.8; 95%CI: 6.69-52.85), (≥45 years: OR=5.18; 95%CI: 1.01-26.58) and severe hemophilia (OR=6.25; 95%CI: 1.27-31.25).

Conclusions: Despite screening of blood and blood factors, HBV and HCV infections still occurring in hemophilia patients. Closer monitoring of transfused blood and ensue vaccination of all hemophilia patients for HBV are recommended.

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EPIDEMIOLOGICAL PROFILE OF SICKLE CELL DISEASE-IRAQ, 2015

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Background: Sickle cell disease (SCD) is an autosomal recessive disorder characterized by production of abnormal hemoglobin. It is particularly common among people whose ancestors come from certain areas in the world including Arabian Peninsula and Mediterranean countries. In the United States, there are 72,000 SCD patients and two million carriers. In Iraq there is limited data on epidemiology and burden of SCD. The objectives of this study were to estimate the incidence and prevalence and identify their trends over the period 2010-2015, and describe basic epidemiological characteristics of SCD patients in Iraq.

Methods: We conducted this descriptive study through visiting the accessible 16 (of the 19) hemoglobinopathies centers in Iraq. A desk review of the records of all patients registered in these centers during 2010-2015. We obtained population data of Iraqi governorates from the Ministry of Planning.

Results: The total number of SCD patients in Iraq in 2015, was 5,124. The prevalence of SCD had slightly increased from 13.1/100,000 in 2010 to 13.9/100,000 in 2015, while the incidence had decreased from 19.7/100,000 in 2010 to 13.2/100,000 in 2015. The highest prevalence of SCD was registered in Basra province (the most southern province) (124/100,000) and the lowest was in Sulaymaniyah and Salahaldin (0.3/100,000). Male: female ratio was 1.1:1. The mean age of SCD patients was 16.3±12.4. Most of the patients were in the age group 6−15 years (37%) and only 16% aged ≥30 years. Around 67% of patients were of consanguineous parents. The current prevalence of hepatitis C infection was 6.4% and for hepatitis B infection was 0.2% and none of the patients had human immunodeficiency virus (HIV).

Conclusion: In spite of decreasing incidence of SCD, more work is needed to increase public awareness against consanguineous marriage. Further studies are needed to explore factors behind the variability in the prevalence between different governorates.

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EPIDEMIOLOGICAL PROFILE OF THALASSEMIA-IRAQ, 2015

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Background: Globally, thalassemia is the most common hereditary hemoglobinopathy, affecting equally males and females and occurred in 4.4/10,000 live births. In the developing world, the majority of patients die before the age of 20 years. In Iraq, there is a little data on epidemiology and burden of thalassemia. The objectives of this study were to identify the epidemiological characteristics of thalassemia patients in Iraq, estimate its incidence, prevalence, and identify their trends during 2010-2015.

Methods: A retrospective review of all patients' records for 2010-2015 that retrieved through visiting the accessible 16 (of the 19) thalassemia centers in Iraq. Corresponding population data of Iraq provinces obtained from Ministry of Planning. We calculated annual incidence and prevalence for all provinces.

Results: Thalassemia represented 75% of all hemoglobinopathies in Iraq in 2015, with a prevalence of 36/100,000 population, and incidence of 34/100,000 livebirths. The prevalence of thalassemia increased from 32/100,000 population in 2010 to 36/100,000 population in 2015, while the incidence decreased from 63/100,000 livebirths in 2010 to 34/100,000 livebirths in 2015. β-thalassemia major represented 67% of all types of thalassemia. The highest prevalence of thalassemia was registered in Basra province (74/100,000 population). Male, female ratio was 1.1:1. Most of the patients were in the age group 6–15 years (42%) and only 9.5% aged ≥30 years. Around 75% of patients were of consanguineous parents. Among 10,740 patients aged 6+ years (school age), 13% (1,401) did not attend schools. About 28% (3705) of all patients aged >18years; 18% (648) of them were married, 8% (310) attended college, and 17% (628) were employed.

Conclusion: In spite of the decreasing incidence, hundreds of new children with thalassemia are born every year. Health education, carrier screening and premarital screening remain the best preventive measures that can enhance health, social and economic benefits.

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MENTAL DISORDERS AMONG THE ELDERLY PEOPLE ATTENDING GERIATRIC CLINIC OF BAGHDAD MEDICAL CITY, BAGHDAD, IRAQ, 2017

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Background: The aging population is currently one of the main issues facing international healthcare systems. Between 2015 and 2050, the proportion of the world's population ≥60 years will increase from 12% to 22%. In Iraq, 2014, the proportion of this group was 5%. WHO estimates that 15% of elderly people are suffering from mental disorders (MDs). Iraqi population was exposed to wars and conflicts, which affect their mental health. We conducted this study to measure the prevalence and identify types and potential associated factors of MDs among elderly people in Baghdad, Iraq, 2017.

Methodology: We conducted this cross-sectional study with analytic element using a convenient sample of 320 elderly people attending Geriatric Clinic of Baghdad Medical City Hospital for non-psychiatric complaints. We collected data on basic demographics and potential risk factors using a self-reported questionnaire. MDs were defined based on Kessler Psychological Distress Scale (K10) with a known validity and reliability where the cutoff score was 20+. Accredited tools used by WHO were used to identify the types of MDs.

Results: The prevalence of MDs in the study sample was 24.4% (95%CI: 19.85-29.53%). The prevalence rates of MDs types were: depression 16.6% (95%CI: 12.75-21.19), anxiety 12.8% (95%CI: 9.45-17.09), dementia 5.3% (95%CI: 3.22-8.53), substance use disorder 2.5% (95%CI: 1.17-5.06), suicide thoughts 5.6% (95%CI: 3.59-8.72) and suicide attempts 2.5% (95%CI=1.17-5.06). Logistic regression analysis revealed the following significant independent factors: aging (OR:13.7, 95%CI: 9.40-20.2) dependent on others (OR:19.25, 95%CI: 8.06-24.8), loneliness and social isolation (OR:53.4, 95%CI: 18.4-55.3), visual impairment (OR:14.9, 95%CI: 4.63-21.8), economic state deterioration (OR:32.9, 95%CI: 14.7-42.4), neglect and mishandling (OR:46.02, 95%CI: 15.7-49.2), cardiovascular diseases (OR:9.79, 95%CI: 9.23-17.7) and chronic joint pain (OR:11.1, 95%CI: 5.59-17.4).

Conclusions: MDs are widespread among elderly people determined by multiple physical, psychological and socioeconomic factors. We recommended stronger integration of elderly mental healthcare within geriatric healthcare services.

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A FOOD POISONING OUTBREAK IN AL-KHAZIR U2 CAMP OF INTERNALLY DISPLACED PERSONS - IRAQ, SUMMER 2017

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Background: Globally, about 600 million fall ill and 420,000 die every year after eating contaminated food. On June 12, 2017, Iraq CDC informed about a food poisoning outbreak among internally displaced persons (IDPs) in Al-Khazir camp, Northern Iraq after consuming iftar (Ramadan breakfast) provided by an NGO. Iftar was composed of rice, white bean broth, chicken, yogurt, date and bread. We conducted this study to describe the outbreak, identify the causative agent and recommend preventive measures.

Methods: A team of field epidemiology training program (FETP) residents dispatched to investigate the outbreak. The case patient was defined as any person in the camp who ate iftar and developed nausea/vomiting or diarrhea or abdominal pain. A retrospective cohort study was initiated.

Results: The total number of IDPs in the camp was 6,425; 1,470 (22.9%) were in sections C, D and E who got iftar and all were directly interviewed. The mean age of patients was 19 (±15years), and the female, male ratio was 1.1:1. The attack rate was 91%. The most frequent symptoms were nausea and vomiting (86.6%), abdominal pain (68.4%) and diarrhea (59%). The range of incubation period was 15 minutes-16 hours; 62.2% had symptoms after three hours. About 72% of patients treated in the nearby primary health care (PHCs) and 28% transferred to the ER. None of the patients was hospitalized or died. The implicated food items were: rice (RR=1.4; 95% CI: 1.2-1.6) and chicken (RR=1.2; 95% CI: 1.1-1.3). Laboratory results of examined leftover food samples revealed Staphylococcus aureus growth. All meals were prepared by one restaurant, not kept in refrigerators and served after 10 hrs. For legal causes, the team was not allowed to assess the restaurant or examine the workers.

Conclusions: The large number of ordered meals from a single restaurant led to suboptimal food preparation and storage. We recommended rigorous implementation of food handing instructions and health education of the food handlers.

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