Abstracts Book
2016
It gives me great pleasure to introduce this booklet of the research production of the students in the Health Professions Conference. The volume and quality of abstracts published in this book represent a unique and significant achievement towards realizing our University mission of enhancing and fostering scientific research. What is special about this book is that all contents are authored by students from all Colleges of this University under the supervision of their faculty. In my own view, this is a good predictor of graduating health professionals who cares for research to make informed decision based on scientific evidence generated from high quality research.

I would like to take this opportunity to congratulate all the participating students in The health professions Conference for KSAU-HS Students, in addition to the scientific and organizing committees, for their hard work and team efforts to organize this important conference. From our side as leaders of this University, we will provide all possible support to encourage students’ research and similar activities in the future.
Since the establishment of the King Saud bin Abdulaziz University for Health Sciences (KSAU-HS), research has been highlighted as an important approach in realizing the mission, strategies, and activities of our University. Research is well incorporated and integrated in the curricula of all Colleges. For instance, the Medical Research Block at the College of Medicine runs longitudinally through the four-year medical program where students are expected to write a proposal, implement the research, and formulate a scientific manuscript. Therefore, it is not surprising to see this reasonable volume and high quality research that are put together in this booklet.

I am proud to convey this message to thank all students for their significant efforts, and perseverance that allow them to spend time out of their busy schedule to participate in this important conference. I would like to take this opportunity to thank all students, the scientific and organizing committees, and support staff for their collaborative efforts to ensure an organized and successful event.
As you are aware, KSAU-HS is organizing a very important university event- The Health Professions Conference for all health science Students. This conference will be organized under the auspices of H.E Dr Bandar AlKnawy, The President Of KSAU-HS university.

The research day will be held simultaneously in the three campuses of the university (Riyadh, Jeddah and AlAhsa), during which research papers will be presented.

The main objective of this event is to encourage, strengthen, as well as creating conducive environment for supporting students ‘research and their extra-curricular activities in addition to carrier planing.

Oral presentations and posters were evaluated. The best students’ research contributions (oral /poster) for undergraduate and postgraduate included.

The selected papers will be submitted to the Ministry of Education, 7th student Conference, for competition with other universities in the kingdom, which will be held in AlMadinah AlMunawarah from the 7th to the 10th of November 2016, activities include poster and oral presentations. In addition, awards will be distributed for the best student’s research papers during this event.

This conference has been organized by Deanship of Student Affairs.

Overall, this event is “by the students, from students, to students”
On behalf of all the organizing committee, it’s a great pleasure to welcome you to the Health Professions Conference 2016.

This year, we were hugely impressed by more than 700 abstracts that were submitted from more than 15 universities across the Kingdom and the region, which made us increase the accepted abstracts to be 240 and awards from 12 to 26 awards for posters and oral presentations from both undergraduate and graduate researchers.

As we all know, the health field is rapidly progressing in terms of medicine, guidelines and even disease behavior, and the need for safe, up-to-date information is crucial. For this, HPC2016 has a special focus on promoting and investing in younger researchers who will take the lead in changing the future of health. So all coming pages are made by effort and contribution of young researchers under the supervision of field experts.

I would like to end my brief welcome by thanking all those who have contributed to this conference: Deanship of Students Affairs staff for their continuous support throughout the stages of preparation, Student Research Board for the great input in formulating conference research program and abstracts evaluation, all the speakers for preparing and presenting talks that inspire us and last but by no means least, the Students Club organizers for their enthusiastic efforts that have turned this conference into reality.
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Oral Presentations
The Relationship of Children’s Growth with Mothers’ Educational, Employment and Socioeconomic Levels: A Cross-Sectional Study in Riyadh, Saudi Arabia

Presenter:

Abdullah Omar Al Houssien

Authors:

Abdullah Omar Al Houssien, Suliman Ibrahim Alhaidari, Mohammed Ahmad Al Teraiqi, Rana Omar Al Houssien, Omar Ibrahim Alhaidari, Dr. Assad M. Al-Arafah and Dr. Aamir Omair

Background: Children’s normal growth is an indication of well-being and is influenced by multiple factors, which can be genetic or environmental. Social status of mothers plays an important and crucial role in children’s growth during early stages of childhood. Aim: To explore the effect of mothers’ educational, employment and socioeconomic levels on their children’s growth in Riyadh. Methods: A cross-sectional study was conducted in eight hospitals in Riyadh. It targeted children between one month and seven years old visiting the vaccination clinics using convenience sampling. Data were collected by interviewing mothers to collect their educational, employment and socioeconomic statuses and by measuring and plotting their children’s height and weight on CDC growth charts. Results: A total of 744 children were screened (392 males, 352 females). The proportion of children having weight and height under the 25th percentile were 40% and 29%, respectively. It was found that the proportion of children having height under the 25th percentile was significantly higher as mothers’ education decreased (p=0.02). Mothers who worked in the private sector had significantly less proportion of children under the 25th percentile for weight (p=0.02) and height (p=0.05) than government employed and unemployed mothers. Mothers who lived in apartments had significantly less proportion of children having height under the 25th percentile than those who lived in houses (p=0.04). Mothers who lived in rented residences had significantly less proportion of children having weight under the 25th than those who lived in owned ones (p=0.02). Conclusion: Underweight and short-stature among children are associated with less educated and unemployed mothers and with mothers who lived in houses. These findings indicate the necessity for introducing the importance of mothers’ social status effect on children’s growth during parents counseling.
Arterial and Venous Electrolytes in Pediatric Population- A Correlational Analysis

Presenter:
Jaber Abdullah Alshaya

Authors:
Mohammed Abdullah M. Al-Kthran, Farhan Al Enezi, Abdullah Al Mutrafy, Mohammed Al Mutairi, Nesrin Al Harthy, Saleh Al Garni, Manjush Karthika

Introduction & Background: Electrolyte disturbances are life threatening scenarios that require quick and accurate diagnostic assessment and acute medical attention. To overcome the delay of venous electrolyte reports in adults, arterial blood gas (ABG) analyzers can be used to measure electrolytes and the results are available within 5 minutes. Objective: To assess the correlation between the ABG and venous electrolytes (sodium, potassium and calcium) in pediatric intensive care unit (PICU) patients of King Abdulaziz Medical City (KAMC). Method: This observational cross sectional study included all pediatric patients (<18 years) who were in pediatric intensive care unit (PICU) during the period September 2014- August 2015 by convenient sampling. ABG analysis of electrolytes was done inside the PICU with COBAS B 221 analyzer and venous analysis was done at laboratory. Result: The ABG electrolytes (sodium, potassium and calcium) were compared with venous values using Pearson Correlation. The ABG sodium and potassium was highly positively correlated (r= 0.9 and r= 0.544 respectively) with the venous values (p<0.05). The correlation for Calcium was found to be 0.122, showing a weak correlation. Discussion: Electrolyte abnormalities are considered as one of the common causes of morbidity and mortality in ICU patients. Jain et al. concluded no significant difference between the potassium values of ABG machine and lab, whereas sodium values were significantly different. In our pediatric group study, arterial sodium and potassium samples are found to be positively correlated with venous results, and arterial and venous calcium showed a weak correlation. Conclusion: ABG analysis of electrolytes could be considered as an alternate tool for electrolyte quantification, except in rarest scenarios, that demands specific venous electrolytes. We conclude that rapid estimation of electrolytes by ABG analyzer method would facilitate diagnostic and prognostic aspects of critically ill pediatric patients.
Trends of Opioids Consumption for Cancer Patients Treated by Palliative Care Team at the Last Week of Life in a Tertiary Care Center

Presenter:
Nayef Ahmed Alhinti

Authors:
Saleh Ali Alghsoon, Abdullah Yousef Alawlah, Abdulmalik Abdulrahman Aljulaihim, and Dr. Abdullah Alqarni

Introduction: One of the most distressing symptoms for patients globally is pain. Practically stage four cancer patients who are under palliative care. For this reason, World Health Organization (WHO) established a guideline to assess pain and manage it. Aim: to determine the amount of opioids administered in the last week of life for adult cancer patients under palliative care department. Methodology: A retrospective cross-sectional study. Clinical records of cancer patients who were admitted under palliative care department at King Abdulaziz Medical City (KAMC) in Riyadh and died from 1-Jan-2014 to 1-Jan-2015 were reviewed. Demographic variables, date of admission and death, type of cancer and intervention, administration and doses of opioids, administration of other analgesics, and incidence of respiratory depression were collected. Opioids doses were collected on day 7 and day 1 before death (day 0 is the day of death). Results: Out of 64 patients, 46 received opioids of different types. The average dose equivalent to PO morphine on day 7 was 49.14mg and on day 1 was 39.37mg. IV morphine was the most prescribed opioid on day 7 (28 patients) and on day 1 (33 patients). Thirty three out of the 64 patients received other analgesics. The incidence of respiratory depression was 13% (6 out of 46). Conclusion: more than 2/3 of palliative care patients received opioids with an average dose 39.37mg in day 7 increasing in day 1 to 49.14. The average in USA is 79.1 mg according to university of Wisconsin database. As a result we believe that patients are receiving less than needed analgesia in compare to USA. So local physicians taking care severely debilitated patients need to increase the amount of opioids prescribed and monitor the patients for respiratory depression.
Introduction & Background: Safety of healthcare workers (HCW’s) is essential for patients safety. Despite of this fact, HCW’s are at high risk of work-related injuries (WRI). Those injuries include falls, musculoskeletal disorders, needle stick injuries (NSI’s) and workplace violence. These injuries have a negative impact on HCW’s and reduces the quality of care. Objectives: 1- To assess the incidence and time trend of occupational injuries among health care workers. 2- To analyze the distribution of injuries across hospital departments, job categories, location, and nature of the injury. Method: A retrospective study, in which data collected from WRI reports available in the Armed Forces Hospital in Khamis Mushayt city, injuries were NSI’s during (January 2010 to June 2015) and workplace violence during (March 2014 to June 2015). Results: Total NSI’s were 338 with a peak incidence of (n= 85, 4.39%) during 2010, while it was the lowest during 2015 (n= 31, 1.12%). Regarding to workplace violence, 211 incidents were reported over the period of two years, and there was decreasing from 125 cases (4.73%) in 2014 to 86 cases (3.11%) in 2015. Discussion: The risk analysis showed that nurses had the highest rate of NSI’s and workplace violence as compared to other HCW’s. The highest rate of NSI’s took place in dental, family and community medicine clinics which are usually crowded and had more activities, but emergency room and other clinics, had the highest frequency of workplace violence. Conclusion: Needle stick injuries and workplace violence represent a major occupational challenge to HCW’s in the hospital. To prevent those types of WRI’s, there is a need for a system of environmental safety, continuous education, skills development, and infection control surveillance that is based on best available evidence of quality and safety best practices.
Isolation and Phenotypic Characterization of New Isolated Bacteria from Treated Water Plant in Wadi Hanifa, Riyadh, Saudi Arabia

Presenter:
Fahad Saqer Almutairi

Authors:
Raed Aljodai, Abdelrahman Alkahtani, Mohamed Alshebrin, Ahmed Abujaffal, Faisal Almajed & Hazem Aqel

Introduction & Background: The water treatment plant is aimed to collect all surface water sources that come from the city by adapting a new natural and nonchemical water treatment system. Objective: This study is aimed to isolate and characterize public health important bacteria from water treatment plant. Method: Five different water samples were collected from treated water plant in Wadi Hanifa. The samples were transferred to Microbiology Laboratory, KSAU-HS, CAMS. The new isolated bacteria were characterized using four methods: 1) Culture method, 2) Gram stain, 3) Biochemical tests, and 4) API20E. Result: Seventeen colonial bacteria were isolated from blood agar (6 bacteria) and MacConkey agar (11 bacteria). But according to Gram stain and biochemical tests, 14 new rods bacteria were identified. Six out of 14 were Gram negative rods (WH1, WH2, WH3, WH5, WH7 and WH9) and 8 were Gram positive rods (WH4, WH6, WH8, WH10, WH11, WH12, WH13 and WH14). The optimum growth temperature for 14 strains was 37°C. All strains grow at 25°C except three strains WH1, WH3 and WH8. Three strains (WH1, WH2 and WH3) out of 6 Gram negative rods were lactose fermenter and produce β-hemolysis. In other hands, one strain (WH10) out of 8 Gram positive rods was lactose fermenter and non-hemolytic bacteria. All isolated bacteria showed high growth turbidity except one strain (WH3) from Gram positive rods showed sedimentation at bottom. According to API20E, for 6 Gram negative rods were all positive for ONPG but negative for indole test. All 6 Gram negative rods were positive for ODC except one strain (WH3). Discussion: Phenotypic characteristics suggest that some of the isolated strains could be regarded as potential type strain for novel species. Conclusion: Further studies are recommended such as genotypic characteristics and resistance to antibiotics.
Effect of Education on Menstrual Knowledge among Saudi Adolescent School Girls

Presenter:
Sara Mohammed Al Eraij

Authors:
Dr. Sara Al Eraij, Dr. Hanan Al Kadri

Introduction: Menstruation is a natural phenomenon that indicates reproductive maturity in adolescents. The way adolescents perceive menstruation, including their beliefs and attitudes towards menstruation and their hygienic practices and behaviours during it, greatly affect their reproductive health. Aim & Objectives: This study is designed to identify the effect of education on adolescent school girls’ knowledge about menstruation, and to assess the hygienic behavior and indigenous practices among the study population during menstruation. Methods: A quasi-experimental study was conducted to assess the impact of a menstrual education program on adolescent girls’ knowledge about menstruation. A total of 232 students in a randomly selected intermediate and high schools in the eastern region of Riyadh City were included. A self-administered questionnaire was distributed before and after the menstrual education program to obtain the required information from the study population. Results: The results showed a significant difference in the mean score of knowledge before the menstrual education program and the mean score of knowledge after the menstrual education program among Saudi adolescent school girls (before: 2.81±1.07, after: 5.16±1.12, P <0.001). The high school girls’ mean knowledge score was significantly higher than the mean knowledge score of the intermediate school girls before and after the menstrual education program (P= 0.016 and P= 0.013 respectively). Conclusion / Recommendations: The present study confirms that menstrual education programs can be an effective method in improving the adolescent girls’ knowledge about menstruation and promoting their menstrual health.
The Role of Health Information Management (HIM) Practice in Health Care Settings: An exploratory study in healthcare settings in Riyadh

Presenter:
Mohammed Ali H. Shami

Authors:
Mohammed Ali H. Shami, and Basema Saddik, PhD

Introduction & Background: The role of HIM has been vital in healthcare organizations, enhancing the standards of paper-based records from clinical, financial, and social perspectives. Today, HIM is facing major changes towards e-HIM due to the growth of the EMR among healthcare settings. Therefore, the role of health information management professionals is crucial in the health informatics era. Objective: Investigate the role of HIM in healthcare settings and measure the adoption of e-HIM to identify the new roles for HIM professionals in order to provide training opportunities for new skills. Method: Mixed methods used to identify the role of HIMs across 12 hospitals in Riyadh. Eleven interviews were conducted to identify the HIM administrators’ roles and 91 surveys were distributed to HIM subordinates using systematic random sampling for exploring the role of HIM’s workers. Thematic analysis was used for the qualitative part and statistical analysis was utilized for the quantitative part. Result: HIM workforce in supervisory positions were involved in quality management, in developing the EMR, and played a role in medico legal issues. The majority of HIM’s subordinates were involved in ensuring completion of the medical records (40.3%), filling (49%) protecting patient information (88%), translating and transcribing patients’ reports, and releasing patient information. About (67%) HIM technicians were not involved in IT. Most hospitals could not estimate the level of e-HIM due to the unclear move towards the EMR and the use of paper-records. Discussion: HIMs in managerial positions need training in project management and change management to gain a clear vision and strategic planning skills towards transitioning to e-HIM. A shortage in some of HIM’s specialists such as medical coders in HIM due to the insufficient courses available in the country. Conclusion: The study showed the most significant roles among HIM’s workers included the traditional roles of protecting and safeguarding health information. The adoption of e-HIM is in a transitioning phase with the adoption of the EMR and it is crucial that HIM managers plan ahead for converting the role of the HIM workforce.
The Prevalence, Special Clinical and Biochemical Characteristics of Type 1 Diabetic Patients with Affected Siblings (Familial Type 1 Diabetes) in Pediatric Patients in King Abdualaziz Medical City in Riyadh

Presenter:
Norah AlSabty

Authors:
Dr. Angham AlMutair, Ms. Norah AlSabty, Ms. Hala AlNuaim, Dr. Afaf Moukaddam, MS. Rawan Alhamdan

Introduction & Background: Many patients with diabetes mellitus type I (T1DM) have siblings who also suffer from the disease. The characteristics of this specific population have not been well defined in the literature. Objective: To find the prevalence of diabetic patients with affected siblings among T1DM patients (familial T1DM). To identify the presence of any special clinical and biochemical characteristics of this population in comparison to those who do not have diabetic siblings. Method: In this cross-sectional study, charts at King AbdulAziz Medical City (KAMC) and King Abduallah Specialized Children’s Hospital (KASCH) were reviewed. The review included the 10-year period between 2003 and 2013 where all T1DM children who initially presented and diagnosed in KAMC and were older than one year of age were enrolled. Patients were excluded from the study if they did not have any siblings, were diagnosed with monogenic diabetes or other type of diabetes. Three hundred and fifteen patients were included in this study. Based on the presence of at least a diabetic sibling, the patients were sub grouped into two groups. Their clinical and biochemical characteristics were compared. Result: The prevalence of familial T1DM was found to be 15.9%. Of those, the majority (81%) reported having another affected sibling only. Amongst the two groups, we found no significant differences in the age of presentation, gender, BMI percentile, diabetic ketoacidosis (DKA) presentation, rate of DKA episodes, HbA1c level and autoantibodies titers. Discussion: Prevalence of siblings was 15.9% which appears to be higher than reported in the literature. There was no special characteristics in comparison to other studies which revealed female predominance, older presentation age, lower HbA1c and DKA presentation. Conclusion: In summary, it was found that KAMC has higher prevalence (15.9%) of siblings with T1DM but they did not have special clinical and biochemical characteristics.
Prevalence of Irritable Bowel Syndrome and its Association with Anxiety among Medical Students of King Saud bin Abdulaziz University for Health Sciences, Riyadh.

Presenter:
Nasser Abdullah Alowaimer

Authors:
Meshal Khaled Alaqeel, Nasser Abdullah Alowaimer, Nawaf Yousef Almegbel, Anas Fahad Alonezan, Fahad Yousef Alaujan

Introduction & Background: Irritable bowel syndrome (IBS) is a common medical disorder affecting the function of gastrointestinal tract. The relationship between psychiatric and gastrointestinal disorders like IBS is well established which can aggravate their symptoms. Medical students are victims of stress and anxiety due to tough curriculum and busy schedules. Therefore, the higher prevalence of anxiety-related-IBS among them compared to other disciplines. Objective: The study focused on the prevalence of IBS among medical students of both genders currently studying from 1st to 5th year in KSAU-HS. And the association of anxiety with IBS among these students depending on academic year. Method: A cross-sectional observational study using two self-administered pre-validated questionnaires i.e. Depression Anxiety Stress Scales-21 and ROME III Criteria were used for data collection. By using Raosoft website, the sample size calculated was 270 with confidence level of 95% and 5% margin of error. This sample was distributed amongst the study population using quota sampling based on the percentage of the students in respective years. For participants selection, convenience sampling was used. Result: The overall prevalence of IBS was 21% (n=57) with higher prevalence among females 26% (n=21) compared to males 19% (n=36). The 5th academic year was the most prevalent with 29% (n=10) and the 1st was the least with 14% (n=12). Anxiety levels measured using DASS-21 were normal in 39% (n=105), mild in 7% (n=19), moderate in 26% (n=70) while 27% have severe and extremely severe anxiety. A significant association was found between anxiety and IBS (Chi-square=10.062, p-value=0.039, CI=0.033-0.040). Conclusion: The overall prevalence of IBS was higher in females, while for both genders it was highest in the 5th academic year students. Two-thirds of medical students either have moderate or high levels of anxiety. There was significant association between IBS and anxiety which was similar to other studies worldwide.
Determinants of Oral Health Care (OHC) Access and Utilization in primary health care centers (PHCC) in Riyadh

Presenter:
Abeer ali bin jabeer

Authors:
Abeer Bin-Jabeer

Supervisor: Omar B. Da’ar, Ph.D

Introduction & Background: Oral health of population achieved a great improvement all around the world after the adoption of WHO health for all strategy in PHC (in Alma Ata) from four decades. Objective: To assess the primary OHC in Riyadh in terms of accessibility and effectiveness and to identify the determinants of OHC utilization. Method: Across-sectional survey was administered to 300 patients in from two selected primary health care centers (PHCC) owned by ministry of health in Riyadh area. Result & Discussion: 300 patients participate in our sample; (61.3%) of our patients visited dentist in less than one year, while (22%) were from 1-2 years, and (14%) were over 2 years ago. Moreover, about 53% of the individuals in our sample visited a dentist in the past 12 months once, 20% twice, and 25.3% at least three times. Most of our sample patients were visiting private dental clinic (77%) more frequent than PHCC (44.5%) and hospital outpatient clinics (14%).
Quality of Life in Children Treated for Neuroblastoma: a Multicenter Study

Presenter:
Ahmed Turki A. Al-Turki

Authors:
Abdulwahab Al Jubab, Mohammed Alnamshan, Ahmed Al Turki, Mohammad Marzogi and Amani Al Ansarri

Background: Neuroblastoma is the most common solid tumor in children, 8–10% worldwide. No previous study done to measure neuroblastoma patients QOL. Objectives: To determine the quality of life (QOL) of neuroblastoma patients in Saudi Arabia using the Wisconsin Quality of Life Client Questionnaire (WQOLQ), and to compare the QOL of patients with that of a control group and with respect to different variables. Methods: From 2006 to 2013, 46 neuroblastoma patients (22 males and 24 females) were recruited from three referral centers in Saudi Arabia. Patients’ parents were interviewed over the telephone and answered questions according to the WQOLQ (total score range –3 to 3). The same questionnaire was completed by interviewed the parents of 40 healthy children (23 males and 17 females), and the findings from neuroblastoma patients and healthy controls were compared. Results: The mean (±standard deviation) QOL score was 1.68±0.57 (range –0.27 to 3.0) for neuroblastoma patients and 1.89±0.49 (range –0.24 to 2.73) for controls, with no significant difference between the two groups (p=0.863). We then studied the neuroblastoma patients’ QOL scores with respect to different variables. Patients who received a combination of chemotherapy, radiotherapy, and surgical intervention had no significant difference QOL score in comparison to those who received less (p=0.226). Patients who died had a lower QOL (prior to death) than those who survived (p<0.001). Patients who attended school had higher QOL scores than lower-educated patients (p<0.001). Discussion: Due to the rarity of pediatric cancer and lacking of tumor registry in KSA, we could not be able to enlarge our sample size. However, our findings are supported by many studies in the literature. While, education enhancing patients life, focusing on QOL of neuroblastoma add new measurement for their response to treatment. Conclusion: This study revealed no difference in QOL scores between children with neuroblastoma and healthy children (p=0.863).chemotherapy during ICU stay were associated with mortality. Conclusions: Patients with hematologic malignancies requiring intubation had high mortality (69%). Male gender, presence of septic shock and requirement for renal replacement therapy were independent predictors of mortality.
Patients with Hematologic Malignancies Requiring Invasive Mechanical Ventilation: Characteristics and Predictors of Mortality

Presenter:
Haya Abdulaziz Al Oraimi

Authors:
Hasan M. Al-Dorzi, MD, Haya Al Oraimi, Faten AlEid

Rationale: Acute respiratory failure may complicate the course of patients with hematological malignancies and has historically been associated with poor prognosis. The objectives of this study were to study the characteristics, outcomes and predictors of mortality of patients with hematologic malignancy who required intubation. Methods: This was a retrospective cohort study of all patients with hematological malignancies who were admitted to the intensive care unit (ICU) of King Abdulaziz Medical City-Riyadh from 01/01/2008 to 31/12/2013 and required invasive mechanical ventilation. We noted their baseline clinical characteristics, treatments received in the ICU and different outcomes. Multivariate logistic regression analysis was performed to evaluate predictors of hospital mortality. Variables entered in the model were gender, APACHEII score, the ratio of the partial pressure of arterial oxygen to the fraction of inspired oxygen on admission, admission serum lactate and INR, presence of septic shock, use of noninvasive ventilation before intubation, requirement for renal replacement therapy and chemotherapy administration in the ICU. Results: In the 6-year period, 190 patients with hematological malignancies were admitted to the ICU and 123 (64.7%) required intubation for acute respiratory failure. These patients had mean age= 56.9±19.6 years and APACHE II score= 27.9±7.9 and were predominantly males (63.4%). Lymphomas (43.9%) were the most common hematologic malignancy followed by acute leukemias (39.0%). Only 4 patients had bone marrow transplantation. Septic shock was present in most (62.6%) patients on ICU admission. Noninvasive ventilation was tried in 23 (18.7%) but failed. Chemotherapy was provided in 19 (15.4%) patients during ICU stay. New renal replacement therapy for acute kidney injury was used in 18 (14.6%) patients. Hospital mortality was 69.1 (64.6%) for acute leukemias and 70.4% for lymphomas, p= 0.68. Most deaths (82.4%) occurred in the ICU. On multivariate analysis, male gender (odds ratio, 4.81; 95% confidence interval, 1.69-13.72), septic shock (odds ratio, 5.67; 95% confidence interval, 1.92-16.75) and new renal replacement therapy (odds ratio, 13.59; 95% confidence interval, 1.14-161.93) were independent mortality predictors. Neither noninvasive ventilation failure nor chemotherapy during ICU stay were associated with mortality. Conclusions: Patients with hematologic malignancies requiring intubation had high mortality (69%). Male gender, presence of septic shock and requirement for renal replacement therapy were independent predictors of mortality.
Factors Affecting Longevity of Tricuspid Valve Repair in King Abdulaziz Medical City, Riyadh, KSA

Presenter:
Abdulaziz Ali Naji

Authors:
Abdulaziz Alkhaldi, Adbelrahman Jamiel, Ahmed Al Turki, Mohammad Marzogi, Abdulaziz Naji, Albader Al Hazmi

BACKGROUND: Severe tricuspid regurgitation (TR) is an independent predictor factor for long-term mortality. The 1-year survival rate in patients with severe TR is 65% compared with 90% of patients without TR (Nath J, et al, 2004). For that reason, controlling modifiable risk factors and determine the risk of un-modifiable risk factors will enhance the surgical outcome and minimize the mortality rate. OBJECTIVE: To determine peri-operative factors associated with longevity of tricuspid valve repair in patients with tricuspid regurgitation managed at King AbdulAziz Medical City, Riyadh, KSA. METHODOLOGY: All patients underwent tricuspid valve surgery from 1999 – 2012 were included. Peri-operation status for the patients was reviewed from medical chart. Patients’ demographic data, past medical history, other co-morbidities, previous cardiac surgeries, ECHO studies, surgical technique, and surgical complications were carefully recorded. Then, final outcome for the patients was followed by ECHO study and out patient appointment. RESULT: 199 patients were included 66 males (33.2%) and 133 females (66.8%). The mean age at operation was 49.7 years. 59.8% were overweight or obese patients. 4.5% patients have family history of cardiac diseases, 7% were currently smoker, and 33.2% underwent cardiac surgery prior to this operation. All the patients were known cases of other co-morbidities diseases. All the patients underwent combination procedure (CABG, MVR, or septum defect closure). 84.4% of the patients survive, 9% dead, and 6.4% re-operated again. The final results of our project are not finalized yet, and upon completion, different correlational analyses and survival studies will be conducted. Changes on ECHO studies, details of surgical intervention, and patients complications will be include too. CONCLUSION: A variety of patients’ outcomes were reported. We observed huge difference risk factors among our patients. Final outcome will be analyzed soon to help for minimize complications and improve the satisfaction rate.
Antitumor Activity of Gemcitabine in Combination with Atorvastatin Loaded on Microemulsion against MCF-7 Breast Cancer Cells

Presenter:
Dalal Abdullatif Al-Saedi

Authors:
Dalal Abdullatif Al-Saedi, Mayson Husni Alkhatib and Wadiah Salah Backer

The combination of anticancer drugs in nanoparticles has great potential as a promising strategy to maximize efficacies by eradicating resistant, reduce the dosage of the drug and minimize toxicities on the normal cells. Gemcitabine (GEM), a nucleoside analogue, and atorvastatin (ATV), a cholesterol lowering agent, have showed anticancer effect with some limitations. The objective of this in vitro study was to evaluate the antitumor activity of the combination therapy of GEM and ATV encapsulated in microemulsion (ME) formulation in the MCF-7 breast cancer cells and the healthy HFS human foreskin cells. The physical characterization of the drug formulas has been studied by the transmission electron microscope (TEM), while the in vitro drug release profile was evaluated by the dialysis-bag diffusion technique. The cytotoxicity and efficacy of the formulation were assessed by the hemolysis activity and 3(4,5 dimethylthiazole-2-yl)-2,5-diphenyltetrazolium bromide (MTT) assay. The mechanism of cell death was examined by observing the morphological changes of treated cells under light microscope, identifying apoptosis by using Apop Nexin apoptosis detection kit. It has been found that reducing the concentration of GEM loaded on ME (GEM-ME) from 5µM to 1.67µM by combining it with 3.33µM of ATV in a ME formulation (GEM/2ATV-ME) has enhanced the cytotoxicity of GEM-ME by more than two folds against MCF-7 cells while reducing its side effect on the red blood cells and HFS cells as decreased number of dead cells were observed under the light microscope, higher percentages of viable cells (85.15% ± 2.85) detected by FITC/PI assay. The in vitro drug release profile and TEM images revealed that GEM/2ATV-ME is a controlled-release formula that has spherical droplets with mean diameter of 4.81±0.86nm. The current study proved that formulating GEM with ATV in ME has improved the therapeutic potential of GEM and ATV as anticancer drugs while reducing their side effects on the normal cells.
Socioeconomic determinants of exposure to secondhand smoke among Saudi pregnant women

Presenter:
Ahmad Saeed Alghamdi

Authors:
Ahmad Alghamdi, Hazem Jokhadar, Ibraheem Alghamdi, Saleh Alsohaibani, Oda Alqahtani, Hyfaa Wahabi

Background: Secondhand smoke (SHS) exposure is a worldwide problem that threatens life. It is a preventable cause of morbidity and mortality. Exposure to Tobacco is harmful for both the infant and the pregnant women. Objectives: The objective of this study was to determine the prevalence of SHS among Saudi pregnant women in King Khalid University Hospital (KKUH) and to determine the association between the socioeconomic characteristics of the pregnant women and exposure to SHS. Methods: This was a cross-sectional study conducted in the antenatal clinic, KKUH. Data were collected from consecutive women using a predesigned questionnaire addressing the participants’ demographics and exposure to SHS status. Results: The prevalence of SHS exposure among pregnant women was 24%. Low maternal education level and being unemployed were associated with more exposure to SHS (p=0.039), (p=0.02) respectively. There was no association between maternal age, parity and monthly income and exposure to SHS (p>0.05). Conclusion: Maternal educational levels and unemployment are associated risk factors for SHS exposure during pregnancy.
Predictors of dental caries among primary school children in Saudi Arabia

Presenter:
Yazeed Abdullah Alhabdan

Authors:
Yazeed Alhabdan, Hoda jradi, Abdulhameed Albeshr, Ameen Bawazir, Mustafa alzoghoul.

Introduction: Dental caries is a common cause of tooth loss in young people. Different individuals will be susceptible to different degrees depending on the shape of their teeth, oral hygiene behavior, dietary behavior and socioeconomic status. Objectives: To estimate the prevalence of dental caries among 6-8 years old school children in Riyadh city and examine the association between dental caries and socioeconomic status, oral health practices, and other health practices (diet and feeding practices). Materials and methods: This is a cross-sectional study among 578 Saudi male children, aged 6-8 years, old from 12 primary schools in different regions of Riyadh, Saudi Arabia. Students were screened for clinically evident caries using the dmft index. A parent questionnaire was administered to collect information on socioeconomic indicators, child oral health behavior, child feeding practices and dietary habits. Results: The prevalence of caries was 83.13%. Presence of dental caries is significantly associated with poor oral health behavior (P<0.001), low socioeconomic status (P<0.001), consumption of cariogenic food (P<0.001) and the practice of sending the child to bed with a bottle (p<0.001). Difficulty to get an appointment (62.6%) was the main reason for not visiting the dentist. Logistic regression analysis revealed that low maternal education, low family income, not brushing teeth and high consumption of flavored milk were independent predictors for dental caries. Conclusion: Eight out of ten school children have experienced caries during their childhood. Untreated caries in these children require immediate attention. Poor oral hygiene practices and socioeconomic status are the main risk factors for dental decay among the surveyed students. Oral health education programs must be deployed in attempt to control oral disease and school based approaches should be combined with family and community preventive programs. Dental caries is both curable and preventable and therefore should be given the top priority and the full resources.
Prevalence and Risk Factors of Depression among Women with Urinary Incontinence in KFMC

Presenter:

Sultan Romaizan Alenazy

Authors:

Sultan Alenazy, Mohammed Sulaimani, Hassan Abusabah, Ahmed Bahnassy, MSc., MSPH, Ph.D, Ahmed Al-Badr, MBBS, FRCSC, FACOG

Introduction & Background: According to the International Continence Society (ICS), the definition of urinary incontinence (UI) is ‘the complaint of any involuntary leakage of urine’. UI can be caused by a wide variety of factors including: child birth, aging, or other medical conditions. Obesity and women who had vaginal delivery in particular can suffer from stress UI more than women who had cesarean delivery. The researchers assume that depression is higher among Saudi women with UI because it might interfere with praying activities. Objective: To determine the prevalence of depression; and its severity; among women with urinary incontinence (UI). Method: This is a Case-control study using a validated questionnaires administered to women above 18 years of age attending the urogynecology clinic at King Fahad Medical City (KFMC). Women with UI will be compared to continence women. They were asked to fill the Pelvic Floor Distress Inventory (PDFI), Pelvic Floor Impact Questionnaire (PFIQ) and Beck Inventory Scale for Depression. Result: The mean age of the 85 participants with UI was 42.1 (±10.3) years, and the mean parity was 3 (± 2.9). For the control group the mean age of the 85 participants was 33.9 (±8.4) years, and the mean parity was 3.9 (± 2.5). Among women with UI; 46.8% indicated mild depression on Beck scale, while 26% indicated severe depression. In the control group 26.7% reported mild depression, while 13.4% reported severe depression. Discussion & Conclusion: Women with UI were more likely to be depressed compared to women without incontinence. Moreover, severe depression in more common in the UI group.
Exploring the Sharing of Health Information Related To Diabetes on Facebook

Presenter:

Zainab Ali AlQarny

Authors:

Dr. Mowafa Househ, Zainab AlQarny

Background: Social Media users in the Arab World utilize Facebook to exchange Diabetes related health information and advice. Little is known about the type of information that is shared and the potential health consequences on diabetic patients. Objective: (1) To explore how Arab citizens share diabetes related health information through Facebook. (2) To explore the possible health consequences of using Facebook diabetes related health information. Method: We conducted a retrospective qualitative content analysis. Using a predefined inclusion and exclusion criteria, we searched Facebook diabetes related groups in the Arab world between June 1, and December 1, 2015. Result: A total of 55 groups were screened of which 7 met the inclusion/exclusion criteria. There was a total of 6107 posts extracted of which 1551 posts were included for further data analysis. Approximately 30% (n=458) of the posts were from Egypt with no posts from Somalia, Yemen, Comoros, and Djibouti. The majority of the posts, 56% (n=863), were from females. The focus of the posts related to the sharing of personal experiences, raising awareness, spiritual support, research, marketing and education on diabetes. Discussion: We found that diabetic patients benefited from sharing their diabetes experience with other diabetic patients. Sharing diabetes related information through Facebook helped patients improve their management and control of diabetes symptoms. We also found that many of the posts for the 40 to 60-year age group were directed towards finding out diagnosis related information for diabetes as a result of limited access to care in their home countries. Conclusion: Facebook users in the Arab world use Facebook to exchange health information, which has led to improved awareness, support for patients and caregivers and experience sharing by using diabetes related health information. Facebook users in the Arab world also benefited from improved management and control of their diabetes.
The Effectiveness of Cognitive Strategies on Short-Term Retention of Information among Medical Students at King Saud bin Abdulaziz University for Health Sciences College of Medicine: An Experimental Study

Presenter:
Hashem Samir Almarzouki

Authors:
Hashem Samir Almarzoki, Mansour Mubarak, Wesam Abuznadah, Anwar Khan

Introduction & Background: In clinical environment, many learning theories can be used to enhance the education process such as cognitive theory that focuses on how do we receive, organize and store the incoming information and then retrieve it (1, 2). Based on cognitive theory and memory model, different strategies have been suggested to keep learners’ attention and improve their memory such as changing our tone or position during lecture or starting the lecture with a review or summary slide (4). To our knowledge, experimental research using cognitive strategies in medical field is seldom and such a study will help to increase the awareness and bridge the gap between learning theories and clinical practice. Objective: To assess the effect of the introduction of cognitive strategies in lectures among medical students at King Saud bin Abdulaziz University for Health Sciences College of Medicine in Jeddah with the help of post lecture quiz. Method: The study was experimental pretest-posttest control group design. 36 medical students were matched based on their GPA scores and then randomly assigned to two groups. One group received an enhanced lecture using cognitive strategies and the other group was giving a traditional lecture. Each group had a pre-lecture quiz to determine preexisting knowledge. Afterward, each group had post-lecture quiz. Result: Our results showed that students in the enhanced lecture group had a significantly higher mean score in post lecture test compared to traditional lecture group. Discussion: Compared to other studies in different fields, similar results were found using cognitive strategies such as frequent quizzes and summarization during lecture (5, 8). However, to our knowledge, we did not find a similar experimental study in the medical field. Conclusion and recommendation: Our study showed clearly the benefit of introduction of cognitive strategies in lectures among medical students at KSAU-HS in Jeddah. Using cognitive strategies and other learning modalities among medical professionals will improve medical education and promote health care outcome.
Does Diet Affect Ribavirin Bioavailability in Hepatitis C Virus Patients?

Presenter:
Sara Ibrahim Altraif

Authors:

Introduction: Oral ribavirin is a nucleoside analogue used in Hepatitis C Virus (HCV) therapy. Ribavirin bioavailability is increased by high fat diet; hence, the manufacturer recommends ribavirin intake with food. Objective: To compare ribavirin oral bioavailability in patients receiving 18-gram standardized fat diet versus fasting state among HCV genotype 4 (G4) patients. Method: A self-controlled prospective open label study was conducted from 2012-2014 and included 82 chronic HCV patients. Each patient received 600 mg oral ribavirin in the fasting and fed states (18 gram-fat diet) ≥ 3 weeks apart and underwent a pharmacokinetic profile at 0.5, 1.0 and 2.0 hours; Area Under The Curve (AUC0-4h) was calculated. Demographics were reported using descriptive statistics. Ribavirin bioavailability in the fasting and fed states was compared using a generalized linear model. Results: Among 82 consecutive patients, 49 (59.76%) were females. Mean age was 53.40±1.39 and 32 (41.03%) had diabetes. Ribavirin plasma 0.5 hour was (0.28 + 0.03 vs. 0.16 + 0.03) p value 0.004, 1 hour (0.54 + 0.03 vs. 0.44 + 0.03) p value 0.021, and 2 hours (0.62 + 0.03 vs. 0.73 + 0.03, p value 0.011). However, mean AUC0-4h of ribavirin (0.996) was not different between the two states (p=0.956). Discussion: J. R. Wade, and others reported that a standard meal didn’t affect ribavirin bioavailability which was observed in our study with moderate fat diet, however, administration of ribavirin with a high-fat meal increased bioavailability by 46% relative to the fasting state. Hence, restricting patients to a specific diet or a fasting state is not recommended. Conclusion: Among HCV G4 patients, there was no significant difference in AUC0-4h between fasting and fed states in ribavirin bioavailability. We recommend to maintain patients’ convenience in timing of ribavirin oral intake.
Organ trade using social networks

Presenter:
Muhannad Abdulrahman Alsemari

Authors:
Waleed Alrogy, Dunia Jawdat, Muhannad Alsemari, Abdulrahman Alharbi, Abdullah Alasaad and Ali H. Hajeer

Introduction & Background: Organ transplantation is recognized worldwide as an effective treatment for organ failure. However, due to the increase number of patients requiring a transplant, a shortage of suitable organs for transplantation became a global problem. Human organ trade is an illegal practice of buying or selling organs and is universally sentenced. The aim of this study was to search social network for organ trade and offerings in Saudi Arabia.

Materials and Methods: The study was conducted from 22nd of June to 19th of February 2015. The search was conducted on Twitter, Google answers and Facebook using the following terms: Kidney for Sale, Kidneys for Sale, Liver for Sale, Kidney wanted, Liver wanted, Kidney Donor, and Liver Donor.

Results: We found a total of 557 adverts on organ trade, 165 (30%) from donors or sellers and 392 (70%) from recipients or buyers. On Twitter we found 472 (85%) adverts, on Google answers 61 (11%) and on Facebook 24 (4%).

Conclusion: Organ trade is a global problem, and yet it is increasingly seen in many counties. It is essential to provide guidelines for medical professionals and law enforcement to detect and prevent such criminal acts.
Coping and Quality of Life among Systemic Lupus Erythematosus Patients

Presenter:
Abrar Fahad Bin Assfoor

Authors:
Ebtesam Basheer Al Enzi, Abrar Fahad Bin Assfoor, Abeer Fawaz Al Hlefe

Introduction & Background & Objective: Systemic Lupus Erythematous (SLE) is a chronic multisystem autoimmune condition that is persistent and recurrent among young females. Patients with SLE may experience a wide range of physical, psychological and social changes that affect the quality of life. Quality of life for a patient with chronic disease is important aspect that needs to be recognized and assessed continuously. Dealing with such condition is difficult and requires a great deal of coping and adjustment. There is great evidence that coping play an important role in improving the health-related quality of life in patients with chronic disease including SLE. The objective of this study was to assess the relationship between coping and quality of life among patients with SLE and to investigating if this relationship differs by demographic characteristics.

Method: A descriptive comparative cross sectional design was used to collect data from a convenience sample of 40 patients with SLE. Patients were interviewed in a semi structures interview using a revised version of Coping Strategy Questionnaire, and the SLE Quality of Life Questionnaire. Human subjects were protected through voluntary participation, consent and confidentiality was also secured.

Result: Majority of patients were young, married and working females. The mean score for total coping was moderate 42(8). Participants reported using reinterpreting and catastrophizing coping strategies more frequent than cognitive and diversion coping. Quality of life reported as good for the total score 98(46.8) and subscales. There were significant negative correlation between coping strategy and quality of life (r = -.37*, p = .01) meaning that the frequent use of coping strategies, the better the quality of life. There was no correlation between coping and quality of life and demographics.

Discussion & Conclusion: Coping can effectively improve quality of life of SLE patients. Further investigation with larger sample, interventions, and randomized controlled trials are required.
Standardized Radiological Values of Foot among Saudi Population.

Presenter:
Mohammed Abdulrahman Ahmad Alaqil

Authors:
Dr. Nader Alkenani, Mohammed Alaqil, Ammar Murshid, Mohammed Alharbi, Odai Albahali, Dr. Suliman Alghnam

Background: Radiographic measurements are crucial in determining surgical procedures and pre-operative workups. In Saudi Arabia, European-American prostheses are imported. This eventually may not match the population’s needs. Objectives: To examine radiographic foot measurements in Saudi adult population including central tendency measurements and age-group categorization. Methods: In this descriptive retrospective cross-sectional study conducted in Riyadh at King Abdulaziz Medical City between 2010-2014, radiological records were reviewed. Foot angular measurements on the AP-view including: HV, IM1-2, IM1-5, TN, T.C, and AP-Meary angles, while on the LAT-view including: LAT-Meary, Hibb, Djian, and C.I angles were measured. All of the patients, on the same hand, are skeletally mature, with a clear history from foot operations, fractures, deformities, traumatic shocks, and degenerative and systemic diseases. Measurements were further categorized by age groups (18-40 and 41-74). Results: The study included 99 individuals aged between 18-74 years and 38(38%) were males. A total 1212 measurements, both anterior-posterior (140) and lateral (92) views, were performed on 140 feet. Angular varieties did not differ significantly between the two age groups, but IM1-5 and C.I angles exhibited strong significance. There was also no significant difference in angles between right and left feet. Discussion: Our findings demonstrate that angular measurements of our population differ than other populations. Gender and age group within an extended range might fill the void of the previous studies. The measurements of central tendency for all angles differ than other studies because both populations differ than the other. Although that other studies have some sort of thoroughness, the ethnicity criteria were not mindfully taken. Our study conducted the convenience sampling taking into consideration the fact that ethnicity and other inclusion criteria are crucial. Conclusion: The standardized angular measurements of foot among Saudi adult differ from other populations. Therefore, Local prosthetic designs of foot should be manufactured accordingly.
Validity and Reliability of the Arabic Version of the The EuroQOL Five Dimensions Questionnaire (EQ-5D). A Study from Saudi Arabia

Presenter:
Mohammed Mughim Almutairi

Authors:
Rami Bustami, Mohammed mughim almutairi

BACKGROUND: The EuroQOL five dimensions questionnaire (EQ-5D) is one of the most commonly used generic questionnaires to measure health-related quality of life (QOL). The EQ-5D is a validated tool that is short, easy to use and flexible and was originally translated from English to Arabic in a smooth and direct manner according to the EuroQol group’s principles. There are no published reports on the acceptability and psychometric properties of the EQ-5D in the Gulf region. The purpose of this study is to assess the validity and reliability of the Arabic version of the EQ-5D in Saudi Arabia. METHODS: The study was conducted on a convenience sample including consecutive adult Arabic-speaking patients or visitors attending the outpatient clinic at King Fahad Hospital (KFH) in Riyadh during October – December 2015. Participants were interviewed using the EQ-5D and the Short Form Health Survey (SF-36). Known-group construct validity of the EQ-5D and visual analogue scale (EQ-VAS) was examined through testing several hypotheses comparing responses to EQ-5D dimensions or EQ-VAS to SF-36 scores, overall and by dimension or external variables. Statistical analyses were performed using the Chi-square/Fisher’s exact test or the t-test/Mann-Whitney U test, as appropriate. Test-retest reliability of the EQ-5D was evaluated using Cohen’s κ. RESULTS: A total of 80 subjects were included. Mean±SD age was 33.0±11.6 years, with 51% females. The majority of respondents had an educational level of high school or above (76%). Results showed that subjects who reported a problem in any of the EQ-5D dimensions (mobility, self care, usual activities, pain/discomfort and anxiety/depression) had significantly lower scores for most SF-36 scales (p<0.05). Also, significantly lower scores on the SF-36 physical functioning and mental health scales were observed for respondents reporting problems in the EQ-5D physical and anxiety/depression dimensions, respectively (p=0.001, p<0.001). Subjects with poor general health as indicated by the SF-36 had significantly lower EQ-VAS scores and scores for most EQ-5D dimensions (p<0.05). Lastly, females had significantly lower EQ-VAS scores compared to males (p=0.021). Cohen’s κ for test-retest reliability (n=24) ranged from 0.53 to 1.00. CONCLUSION: The Arabic version of the EQ-5D appears to be valid and reliable in measuring health-related QOL in Saudi Arabia. Further studies are needed to assess the validity and reliability of this standard tool in other Arabic-speaking countries with varying cultures.
Levels of Acetaldehyde Released From Cancerous, Fibroblast, and Epithelial Lung Cell Lines Cultured in Vitro, Using Selected Ion Flow Tube Mass Spectrometry ‘SIFT-MS’.

Presenter:
Suliman Ibrahim Alhaidari

Authors:
Suliman Ibrahim Alhaidari, Abigail V. Rutter, Muhamad Rashid Siddique, Marina C. A. de Amarante, Josep Sulé-Suso

Introduction & Background: Lung cancer is a worldwide medical problem that is associated with poor prognosis. Screening for it relies on expensive imaging techniques, which also carry radiation risks. Therefore, a cheaper, radiation-free and non-invasive system is desirable in its screening. Lately, it has been hypothesized that lung tumors might release volatile substances that could be detected in the breath of lung cancer patients. If such biomarkers could be identified, then, in principle, they could be exploited as a diagnostic tool. Researchers have found some promising volatile substances; one of which is acetaldehyde. Objective: To measure the levels of acetaldehyde produced by lung cancer cells ‘A549, CALU-1’, normal epithelial lung cells ‘NL20’, and fibroblast lung cells ‘35FL121’ in phosphate-buffered saline media with/without L-Threonine and Pyridoxal. Method: Cells were cultured in 2D and 3D forms. Then, they were added into experimental bottles with media, sealed and left for 24 hours. Finally, the headspace contents of the bottles were measured, specifically acetaldehyde, using SIFT-MS, which can measure compounds down to concentration of part-per-billion by volume. Result: It was found that acetaldehyde was significantly produced less in cancerous cell-lines in comparison to controls, while it was produced on similar levels in normal epithelial and fibroblast lung cell-lines in comparison to controls. The reason seems to be that cancer cells consume acetaldehyde. Also, the addition of L-Threonine and Pyridoxal did not result in any significant changes in the levels of acetaldehyde produced by all studied cell-lines. Conclusion: This work represents another step in the search for volatile biomarkers of lung tumor cells. The ultimate goal is to exploit volatile compounds in breath as biomarkers of tumors in vivo.
Effect of an Educational Session on First Aid on two Undergraduate Nursing Cohorts’ knowledge: a Quasi Experimental Study

Presenter:
Yara Alqahtani

Authors:
Mona Afifi, Ellaine M. Dela Rama, Yara AL Qahtani, Afnan Al Dosari, Amnah Hamdy

Introduction & Background: First aid is important care provided for ill or injured person in a home, street, school or any place to prevent complications, save life, or prevent degradation of the patient condition before health care provider is available. There are no courses about first aid in the undergraduate nursing curriculum. Objective: The aim of the study is to assess effect of first aid educational session in the knowledge of two undergraduate nursing cohorts. Method: A quasi-experimental study was conducting in 2015. Study sample was 82 female students from college of nursing KSAU-HS third and 4th academic year (41 students form each year). After taking students’ permission, they were approached in a classroom. Data collected using two tools; a questionnaire sheet included 55 statements related to different situations that require first aid (Concept and Knowledge of First Aid, cardiopulmonary resuscitation, Bleeding and Shock, Road Traffic Accidents, Fracture and Trauma, Wound, Sunstroke, Bits and Stings and Burn). Validity and reliability of the tool were ensured. Students were asked to complete the questionnaire survey before and after the structured educational first aid session which lasted for 45min. In addition students were asked to complete the educational session evaluation form. Result: The overall knowledge score showed significant difference between the pre and post educational session (59.58 and 93.00 respectively p=.000). The mean knowledge score of 4th year students is fairly higher in the pretests compared to third year with the mean of 69.56 and 60.88 respectively (p=0.006). However the post test showed no significant difference among the both cohorts. There is an increase the overall mean knowledge score among the two cohorts in the pre and post educational session. Discussion and Conclusion: The knowledge level in the post was higher than the pre session. It is recommend that first aid course to be included in the undergraduate nursing curriculum.
Implementation of The Canadian Emergency Department Triage And Acuity Scale (CTAS) In An Urgent Care Center In Saudi Arabia

Presenter:

Abdullah Saud Arafat

Authors:

Abdullah Saud Arafat, Ali Ibrahim AlFarhan, Hiba Hesham Abu Khalil

Introduction & Background: Emergency departments are the first recipient of emergency cases among healthcare facilities. The main goal of any triage system is to provide the initial assessment and the subsequent determining of patient’s category, the initiation of early intervention if necessary and ensuring that every patient is seen by physician in timely manner. Objective: To review the effectiveness of the implemented five-levels triage and acuity scale triage system in AL-Yarmook Urgent Care Center (UCC), King Abdulaziz Residential city, Riyadh, Saudi Arabia. Method: An observational cross sectional study was conducted, where a data collection sheet was designed and distributed to triage nurses. The triage system was reviewed by measuring three time intervals as quality indicators: time before triage (TBT), time before being seen by physician (TBP) and total length of stay (TLS). Result: A total of 187 patients visiting the UCC during December 2014 were included. There was an almost equal distribution of males 98 (52%) and females 89 (48%). Overall, 173 patients (92.5%) were seen by the physician in a timely manner according to triage guidelines, while 14 patients (7.5%) were not. The mean time was 5.36 minutes in Time before Triage (TBT), 22.6 minutes in Time Before Being Seen By Physician (TBP), and 59 minutes in Total Length of Stay (TLS). Discussion: The majority of our UCC patients were at level 3 (59, 32%), which is not similar to the result of applied CTAS among Andorra population which showed a majority of Level 4 (47%). The median values of TBT for all triage level are similar to the result of a previous study that was conducted in King Faisal specialist Hospital and Research Center, Saudi Arabia. Conclusion: The Canadian Emergency Department Triage and Acuity Scale (CTAS) is adaptable to countries beyond Canada and can be implemented successfully. The applied CTAS triage system in Al-Yarmouk UCC in Riyadh, Saudi Arabia, is considered to be effective and well-applied.
The Validity and Reliability of an Arabic Version of the STOP-Bang Questionnaire for Identifying Obstructive Sleep Apnea

Presenter:
Alanoud Abdullah Alhedyani

Authors:
Alanoud A. Alhedyani, Ahmed S. BaHammam, Alaa M. Al-Aqeel, Ghaidaa I. Al-Obaidm, Mashail M. Al-Owais, Awadh H.Olaish

Introduction & Background: Obstructive sleep apnea (OSA) is a common, serious, under-recognized and under-diagnosed medical disorder. Polysomnography (PSG) is the gold standard diagnostic test for OSA; however, the cost of testing and the shortage of sleep disorders laboratories limit access to this tool. Therefore, there is a need for a simple and reliable diagnostic tool to screen patients at risk of OSA. Objective: This study was conducted to evaluate the validity and reliability of an Arabic version of the STOP-Bang questionnaire (SBQ) as a screening tool for OSA. Method: This study was conducted in three steps, as follows: Step 1: the SBQ was translated from English to Arabic (examining both forward and backward translations); Step 2: the test-retest reliability of the questionnaire was investigated; and Step 3: the questionnaire was validated against PSG data prospectively on 100 patients attending a sleep disorders clinic who were subjected to a full-night PSG study after completing the translated version of the SBQ. The validity of the test was tested against the apnea-hypopnea index (AHI). Result & Discussion: The study group had a mean age of 46.6 ± 14.0 years and a mean AHI of 50.0 ± 37.0/hour. The study demonstrated a high degree of internal consistency and stability over time for the translated SBQ. The Cronbach’s alpha coefficient for the 8-item tool was 0.7. Validation of the SBQ against the AHI at a cut-off of 5 revealed a sensitivity of 98% and positive and negative predictive values of 86% and 67%, respectively. Conclusion: The Arabic version of the SBQ is an easy-to-administer, simple, reliable and valid tool for the identification of OSA in the sleep disorders clinic setting.
Early and late onset neonatal sepsis in a tertiary hospital in Riyadh

Presenter:
Ali A. Almohaisani

Authors:
Abdulaziz S. Alrafaiah, Mohammad Al Shaalan, Faris O. Alshammari, Ali A. Almohaisani, Abdulrahman S. Bawazir, Aamir Omair

Introduction & objectives: The frequency of neonatal sepsis cases and their causative organisms vary from one hospital to another. This study aimed to identify the occurrence of early and late neonatal sepsis and its causative organisms in King Abdulaziz Medical City in Riyadh (KAMC-R). Method: This cross-sectional study included neonates who were born in KAMC-R and had positive blood cultures during the year of 2014 within the first 90 days of life. Their charts were reviewed for risk factors of neonatal sepsis, clinical presentation, prognosis and the causative organisms. Result: Among 85 neonates with positive blood cultures, 43 (51%) had documented sepsis in their charts. Out of these 43 neonates, 17 (40%) had early-onset sepsis and 26 (60%) had late-onset sepsis. During the year of 2014, there were a total of 8665 births in KAMC-R which gives an incidence of 1.96 per 1000 births (95% CI = 1.03, 2.89) for early neonatal sepsis and 3.0 per 1000 live births (95% CI = 1.85, 4.15) for late onset neonatal sepsis. There were 36 (70%) neonates who were preterm, and 29 (67%) were below the normal birth weight of 2500 grams. Respiratory distress was found to be the most frequent presentation (79%). Overall, coagulase-negative Staphylococcus (CONS) was the commonest causative organism (n = 15, 35%), however in early onset sepsis, Escherichia coli (E. coli) was the most prevalent organism (n = 5, 29%). The infection with gram-negative organisms was more likely to be associated with poor outcome with five (33%) deaths out of 15 cases as compared to one (4%) death out of 25 gram-positive cases (p = 0.02). There were seven (23%) deaths out of 30 preterm babies as compared to no deaths in 13 full-term babies (p = 0.06). Conclusion: The majority of neonatal sepsis cases in our hospital were caused by gram-positive bacteria. However, gram-negative bacteria were associated with higher rates of mortality.
Introduction: Although acute stroke shares the atherosclerotic risk factors associated with ischemic heart disease, the relationship between renal dysfunction and stroke has been difficult to elucidate. Accordingly, a key point in an acute stroke is how renal profiles can aid in predicting stroke outcomes such as disability and future complications. The aim of this study is to explore the association between renal dysfunction (expressed in terms of eGFR) and if eGFR can be considered a risk factor to predict stroke outcomes including; mortality, disability, residual neurological deficits and stroke complications. Methods: The population consisted of all adults diagnosed with acute stroke who were admitted to the KAMC stroke unit in Riyadh, Saudi Arabia between 2012 and June, 2015. Data was collected by review charts. The MDRD equation was used to estimate GFR on admission. Patients were classified into 2 eGFR groups for analysis: eGFR >60 (normal) and eGFR <=60 (low). Results and Discussion: lower eGFR patients were 4 times more likely to die when compared to patients whose eGFR levels were higher. They were also more almost 3 times more likely to experience UTI post stroke. Additionally, they were more likely to experience a stroke recurrence. Patients in the lower eGFR group were more likely to have experienced a categorically more severe stroke and have had more residual functional disability even though, at presentation, stroke severity was similar for both groups. Conclusion: there is evidence supporting the use of eGFR as a predictor of stroke severity, disability, complications and mortality.
Pathogens incidence and contamination level in hospital’s pediatric playing rooms in Riyadh and identification of the international criteria used in playing rooms.

Presenter:
Manar Nasser Alghamdi

Authors:
Manar AlGhamdi , Yara AlGoraini , Najd BinManie, Dana Alturaifi, Dr.Rana Kattan , Dr.Manal Bawazeer

Introduction: Playrooms are very useful to help hospitalized children to cope with their illnesses. They have become a joyful area for them to spend free time. Due to the significance of hygiene in these areas, this research was conducted to study the contamination level in hospitals’ pediatric playing rooms. Objectives: To estimate the presence and prevalence of bacterial pathogens in pediatric playing rooms in the hospital. Methods: An analytical cross-sectional study was conducted during 2013-2015 by collecting samples from different areas in the playing rooms before and after cleaning and analyzing them in the microbiology lab to determine the prevalence of pathogens present at King Abdul-Aziz Medical City, Riyadh. Data entered by using an excel sheet and analyzed by (SPSS). Results: 100 samples were collected, 50 from the general playing room and 50 from the oncology playing room before and after cleaning. After sending them to the lab, bacterial growth was found to be 18% of the total samples collected. 50% bacterial growth was found in each playing room with a p value= 1.000. Furthermore, 24% of the growth was before cleaning then decreased to 12% after cleaning with a Chi square= 2.439 and a p value= 0.118. Staphylococcus coagulase negative, Alpha haemolytic streptococcus, Corynebacterium species, Gram-negative bacteria, and Bacillus species are the bacteria that were found in multiple toys. Discussion: In comparison to another study that was done in the United States results showed positive cultures for at least one pathogen in most of the toys. Another study was done locally in Saudi Arabia regarding viral contamination in playrooms and found that 7% of samples taken were positive for rotavirus. Conclusion: Although playing rooms are one of the strongest ways to help children who are under stress to cope with their illnesses, they can be a major cause of infections and contamination.
Estimation of sex from the sternal measurements using multidetector computed tomography in a Saudi sample

Presenter:
Faris Alshammari

Authors:

Introduction & Background: Sex estimation is an essential step for identifying unknown individuals. It usually depends on the existence of highly-dimorphic bones, such as the pelvis and skull. Nevertheless, the body integrity can be compromised in various circumstances where these bones might be absent, so utilizing other bones for sex estimation is crucial. Objective: The aims of this study were to establish baseline data about sternal dimensions in Saudi adults, assess the existence of sexual dimorphism in the sternum, and generate population-specific equations to estimate sex from sternal dimensions. Method: This was a descriptive and analytical cross-sectional study conducted in King Abdulaziz Medical City, Riyadh. Chest and thoraco-abdominal CT images were collected anonymously from the hospital in the period 2014-2015. The sample that fit the inclusion criteria were 200 images (100 males, 100 females). Six measurements and two indices were calculated after 3D reconstruction of the CT scans. Descriptive statistics were calculated, and the existence of sexual dimorphism was assessed using independent t-test. Discriminant function equations were developed for these measurements. Result: Males showed significantly larger dimensions than females, apart from the sternal index. Sexual dimorphism was found to be highly significant (p<0.001). The best single predictor was the combination of the manubrium and sternal body lengths (89.5%). Stepwise analysis showed that the best predictors were the combination of the manubrium and sternal body lengths, manubrium width, and corpus sternal width at first sternebra with cross-validated accuracy of 90.5%. Cross-validated accuracy for all measurements ranged between 62.5% and 90.5%. Conclusion: This study is novel in assessing sexual dimorphism among Saudis utilizing sternal CT modalities. The findings of the study can be used for baseline comparative data, and it has important forensic applications.
Awareness of Liver Diseases among Saudi Adults in Shopping Malls in Riyadh

Presenter:

Abdulaziz Khalid Alqubaisi

Authors:

Abdulaziz K.Al-Qubaisi¹, Basil M. Al-Hussain¹, Zeyad Mohammad², Khalid O. Abdullah³, Wael A. O’hali⁴, AAMIR OMAIR⁵, Ibrahim Traif⁶, Abdulrahman R. Altamimi⁷

Introduction & Background: Acute viral hepatitis is a systemic infection affecting mainly the liver. In 2013, The Ministry of Health reported cases for hepatitis A (n=236), B (n=4259), C (n=1577). The high impact of liver diseases illustrates the importance of awareness since these diseases are mostly preventable. The study assessed awareness of liver diseases among Saudi adults in shopping malls in Riyadh. Objective: To assess the awareness of liver diseases among Saudi adults in shopping malls in different regions of Riyadh. Method: This study was cross-sectional; questionnaires were given by convenient sampling. Four different malls were chosen from different areas of Riyadh. Questions included basic knowledge of Hepatitis A, B, C, liver cancer and cirrhosis. The 17-item questionnaire addressed areas of prevention, transmission and treatment of liver diseases. Result: The study included 409 Saudi participants. The age of the participants was 18-60 years. Females were 248 (61%). The maximum score was 15 out of 17 with a mean score of 9.1+ 2.5. General liver disease questions had an awareness of at least 50% except in two questions related to the most common cause of cirrhosis in Saudi Arabia (21%) and the expression of symptoms in all patients with chronic hepatitis (21%). Discussion: Awareness has vital importance in directing the efforts of associations interested in raising awareness in liver disease by determining areas that need attention. One of the limitations of the study was the number of questions, since some people tended to answer without taking enough time on each question; we propose a more focused and concise approach towards a particular area of liver disease with fewer questions. Conclusion: The awareness regarding hepatitis A, B, C differs in some areas like mode of transmission awareness must be raised in the community due to the poor knowledge. We suggest raising awareness through media, campaigns and brochures that address areas with a knowledge of less than 50%.
Public awareness of blood donation in Central Saudi Arabia

Presenter:
Manar Abdulaziz Alomani

Authors:
Mostafa A Abolfotouh, Mohammed H Al-Assiri, Manar Al-Omani, Alwaleed AlJohar, Abdulaziz Al Hakbani, Ahmed S Alaskar

Introduction/objective: In Saudi Arabia, voluntary donors are the only source of blood donation. The aim of this study was to assess the level of public knowledge and attitude toward blood donation in Saudi Arabia. Methods: Using a previously validated questionnaire that comprises 38 questions to assess the levels of knowledge, attitudes, and motivations towards blood donation, 469 Saudi adults who attended different shopping malls in Riyadh, Saudi Arabia were surveyed. Multiple regression analyses were used with the significance set at P<0.05. Results: The knowledge percentage mean score was 58.07%, denoting a poor level of knowledge, with only 11.9% reporting a good level of knowledge. The attitude percentage mean score towards donation was 75.45%, reflecting a neutral attitude towards donating blood, with 31.6% reporting a positive attitude. Donation was significantly more prevalent among males than females (66% versus 13.3%; P<0.001). After adjustment for confounders, a higher knowledge score (t=2.59; P=0.01), a higher attitude score (t=3.26; P=0.001), and male sex (t=10.45; P<0.001) were significant predictors of blood donation. An inability to reach the blood donation centers and a fear of anemia were the main reasons for females not donating blood (49.9% and 35.7%, respectively), whereas a lack of time was the main reason for males (59.5%). Discussion: Prevalence of blood donation was less than satisfactory among the Saudi public, probably due to misconceptions, poor knowledge, and unfavorable attitude to donation. In agreement with a study by Dubey et al 1, we found that donors had better knowledge than non-donors. Knowledge mean score among females was significantly higher than in males, while it’s the opposite in Iran2. Conclusion: Educational programs are necessary to increase the level of knowledge and improve the attitude of the Saudi public toward blood donation. Providing mobile blood collection units is advisable to provide an easy access for donation.
Prediction of Unified Parkinson’s Disease Rating Scale (UPDRS) Using Data Mining Methods

Presenter:
Huda Alghamdi

Authors:
Huda Al Ghamdi, Dr. Riyad Al Shammari

Introduction & Background: Parkinson’s disease (PD) is a degenerative disorder of the central nervous system. The disease is affecting the motor system due to the death of dopamine-generating cells. Data mining started in the middle of 1990’s as one of the data analysis tools utilized in modern times. Data mining methods become more popular in medical diagnosis and evaluations. It is used to analyze large and complex data to discover hidden relationships among variables. Objective: The aim is to study the progression of Parkinson’s Disease by predicting UPDRS. Method: In this paper, we applied data mining algorithms into a public dataset of patients’ clinical variables with Parkinson’s Disease. The dataset was created by Athanasios Tsanas and Max Little of the University of Oxford, in collaboration with 10 medical centers in the US and Intel Corporation. It contains a total of 5875 voice recordings from 42 people with early-stage PD. Total of 12 data mining algorithms been used in the study to predict the UPDRS. SLR, MLP, SMOreg, M5Rules, Decision Table, M5P, REPTree, Decision Stump, IBk, LWL, Regression by Discretization and REPTree with ReliefF feature reduction technique. Result: The performance of the models evaluated based on the five measures of accuracy: correlation coefficient, mean absolute error, root mean squared error, relative absolute error and Root relative squared error. Weka machine learning is used in the study. The data set were randomly split into two subsets: 75% for training the model and 25% for testing. REPTree with feature reduction gave the highest correlation coefficient (0.999) then M5Rules (0.998) and Decision Table and REPTree (0.997). Moreover, REPTree with feature reduction gave the lowest error rate. Discussion: The overall performance of the classifier algorithms selected in the study is high (AVG 0.89), the required time to test the models is few seconds and error rate is very small. Conclusion: The regression models of data mining performed well in terms of predicting the scale of parkinson disease progression.
Investigating the Role of Pregnancy in the Development of Maternal Rheumatic Autoimmune Diseases

Presenter:
Wala Brnawi

Authors:
Wala Brnawi, Dana Abo Al Samh

Introduction: Autoimmune diseases are a miscellaneous combination of debilitation diseases that affect the immune system. Most autoimmune diseases affect young and middle-aged females with ratios that clearly show a great degree of female gender preference. Of particular importance to the female population are systemic autoimmune rheumatic diseases (SARDs) including rheumatoid arthritis (RA) and systemic lupus erythematosus (SLE), which seem to affect women increasingly during their childbearing years or close after the cessation of the reproductive years. The aim of this study is to investigate whether pregnancy (a ubiquitous event during female adulthood) has any role in the risk of developing RA or SLE. Methods: In this retrospective study, a cohort of 137 female Saudi patients suffering from SLE and RA and seeking care at KAMC’s rheumatology clinic was interviewed. A questionnaire was administered by interviewing the participants. Simple correlation tests and regression analysis were used to compare the rate and the risk of pregnancy and its associated risk factors (abortions, mode, and complications) between the diagnoses of SLE and RA. Results: Eighty percent of the sample reported previous pregnancies. Although many patients were still in their reproductive years, the mean time elapsed since the first pregnancy was 28.17 years indicating that many patients had experienced their first pregnancies at very young ages. Patient age was found to be significantly different amongst the RA and SLE groups. The two conditions were also found to have significant differences in the rate of reported pregnancy. Binary logistic regression analysis revealed that when all significant factors were controlled, pregnancy was found to be significantly associated with the development of RA in comparison to SLE. (OR 2.961). Conclusion: Pregnancy seems to play a role in the onset of rheumatoid arthritis, possibly due to modulation of the immune system to accommodate the foreign fetus.
Preference of physicians’ gender among male and female primary health care clinic attendees in a university hospital in Saudi Arabia

Presenter:
Alhanoof Sulaiman AlEmran

Authors:
Ahmed M. Mandil, Rawan M. Alhayyan, Anfal A. Al-Shalawi, Alhanoof S. AlEmran, Maria M. Alayed

Objectives: To assess gender preference concerning different healthcare specialties, and investigate reasons behind gender preferences among male and female attendees at the primary healthcare (PHC), King Khalid University Hospital (KKUH), Riyadh, Saudi Arabia. Methods: In this cross-sectional study, a sample of 150 males and 150 females, 18 years and above were randomly selected. The 2 proportion sample size equation was used to estimate the suitable sample size for our study. An Arabic translated specially-designed, self-administered questionnaire were distributed at the waiting area of the PHC. It covered personal data, preference of physicians’ gender for 24 different specialties, reasons behind choosing a specific gender, and physicians’ characteristics, if gender does not matter to them. A previous pilot study was carried out to assess reliability of the questionnaire. Results: The results are statistically significant for most of the specialties (p=0.001). Male physicians were preferred by both genders for surgical specialties (such as, 50% of males and 39% of females in General Surgery), as people believe they are more knowledgeable. For medicine, women preferred to be examined by the same gender (54% in Internal Medicine), whereas men mostly had no gender preference (55% in Internal Medicine). When it comes to obstetric and gynecologic care, both genders (67% males and 85% females) preferred a female physician, stating embarrassment as the main reason for the choice. Conclusion: Attendees appeared to have gender preference regarding their physician in some specialties. However, the most in demand physician’s character is the years of experience. Results of this study may influence future physicians in choosing their specialty. We recommend collecting the overall population preference, and broaden the scope of the search, as this may reveal interestingly results.
Poster Presentations
Knowledge, Attitude and Practice of Therapeutic Touch among Nursing Students and Faculty

Presenter:
Ahlam Saleh AlZahrani

Authors:
Ahlam Saleh AlZahrani, Hala Awad AlShlewi, Sundus Saleh Aldubayyan, Dr. Hanem F. Mohamed, RN, PhD, Assistant Professor.

Introduction: Nursing discipline supports the idea of holistic approach of patient care. Going along with this idea, Therapeutic Touch (TT) recognized as a nursing intervention that reflects to the patient that they are cared for. TT is considered as conservative treatment modalities that represent a form of caring touch with the intention to heal. Despite the fact that TT is well known nursing therapy, the nursing curricula is lacking such concept and it is not practiced as well. The purpose of this study was to examine nursing students and faculty knowledge, attitude and practice of TT. Barriers to practice TT were also investigated. Methods: Descriptive study designed to answer 4 research questions was used. Sample: A convenient sample of 55 nursing students and 21 faculties at college of nursing, KSAU-HS were interviewed in a semi structured interview and human subjects were considered. A revised version of the attitudes, knowledge, and practice of TT survey was used. Results: Faculty reported good knowledge about TT effectiveness than students, but reported receiving no training about TT. There were positive attitude from faculty and students toward TT. Faculty and students strongly agreed that therapeutic touch should be included in curriculum and practice, TT hold promise for treatment of diseases/symptoms, nurses should be able to advice patients and that TT is not scientifically tested. Lack of evidence for practice, lack of appropriate practice, lack of faculty training and religious issues were reported as major barriers among faculty and students. Faculty and students reported they didn’t practice TT but they would consider it in the future, and they would recommend TT for patients, family and friends. Conclusion and recommendations: Assessment of faculty and future nurse’s knowledge, attitude and practice of TT could have implications for nursing future. Including TT in curriculum, practice, and postgraduate programs is required. Developing cultural sensitive programs that are originated from Saudi values and integrate body-mind-spirit wholeness are needed.
The Quality of Diabetic care: Comparison between Community Diabetic Structured Setting and Primary Health Care Centers in Riyadh NGHA

Presenter:
Abdulaziz Abdullah Alshamlan

Authors:
Mazen Ferwana, Abdulaziz Abdullah Alshamlan

Introduction: DM is global disease, its prevalence around 8.3%. DM is increasing dramatically especially in developing country. The rate of increasing could reach to 170% for the 30 years ago. KSA is of the top 3 countries with highest prevalence about 23.8% (national problem) there were some studies in Riyadh and Abha about the improvement of DM in structured clinics. Recently, in NGHA some of PHC are upgraded to specialized form which is called Community Diabetic Center (CDC). Our aim is assessing the trend of care between CDC and PHC.

Methodology: NGHA consists of primary, secondary and tertiary services. CDC is special center and contains services like: ophthalmic, dietician, podiatric clinics and diabetic educators. Patients included criteria: (EMR) of adult, DM2 patients with last five visits to the PHC or CDC. Study Design: Retrospective cohort study. Sample Size: the Epi-Info program Total: 592 PHC:296 CDC:296 P-value of <0.05 will be considered as statistically significant. Included variables: Age, Sex, HbA1c, LDL, HDL, Triglyceride and BMI. The gold standard for controlling HbA1c is 7%. The required data will be retrieved from medical records to an excel sheet then will be transferred to SPSS for data analysis.

Results: The mean of the age for CDC patients is 52.83 and for PHC patients is 53.09.

Discussion: Results showed no significance improvement of HbA1c in CDC and the level was significantly better in PHC for the following reasons: Criteria for referral from PHC to CDC are: uncontrolled diabetes for long time, HbA1c is higher with comorbidities or the patients are more difficult e.g Patients refusing insulin. There is no distinction between PHC and CDC in family physicians management. Sometimes family physicians treat patients of PHC. In NGHA the education level of GPs is high because continuous medical education. LDL and BMI are lower in CDC than PHC maybe due to multidisciplinary services like: dietitians and educators.

Conclusion: The CDC improved LDL and BMI not significantly. No significant difference in the reduction rate of HbA1c between CDC and PHC.
Physical Activity and Major Non-communicable Diseases among Riyadh Physicians

Presenter:
Sarah Abdullah Aldukhi

Authors:
Ahmed M.A. Mandil, Nuha Abdullah AlFurayh, Manar Ahmed AlJebreen, Sarah Abdullah Al-Dukhi

Introduction & Background: In Saudi Arabia studies about physical activity are still lacking among sub-population groups, especially physicians, given that they are supposedly more engaged in physical activity. Despite the impact of physical inactivity on NCDs, scarce studies linked them together. Objective: Study aimed at: assessing physical activity, prevalence of major NCDs and possible association between them among Riyadh physicians. Method: Cross-sectional approach was conducted on 370 randomly selected outpatient physicians of both genders working at four leading healthcare delivery institutions in Riyadh, Kingdom of Saudi Arabia using a modified WHO STEPwise questionnaire during 2013-2014. Result: Findings demonstrated high prevalence of physical activity among Riyadh physicians (63.1%). Major NCDs on the average were (21.9%). (Hypertension (36%) chronic respiratory diseases (35%), diabetes (15.5%), cancers (5.2%), and cardiovascular diseases (8.2%). No association was detected between physical inactivity and NCDs among physicians in our sample (p-value= 0.314). Discussion: The possible reasons behind high prevalence of physical activity may be explained as physicians are highly educated and fully aware of the benefits of physical activity. The low prevalence of NCD (21.9%) in our study may be explained by healthier life style among physicians, compared to the general population, but we also recognize that such results are not easy to explain, given that there are other predisposing risk factors. Study showed no significant association between inactivity and NCDs as we do not know whether those who are physically active and suffer from one type or more of NCDs have started their activity as part of the management plan after developing the disease. Conclusion: Study demonstrated high prevalence of physical activity among Riyadh physicians 63% and low prevalence of NCD 21.9%. Detecting possible association between both, we recommend case control approach which be more useful than a cross sectional approach.
Assessment of the Contamination of Healthcare Workers’ Mobile Phones

Presenter:
Anas M. Alyamani

Authors:
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Introduction: Mobile phones provide health care workers (HCWs) with fast communication and quick access to medical information. Their frequent use in the hospital environment may pose a risk of spreading nosocomial infections. In this study, we aimed to determine the bacterial contamination of HCWs’ mobile phones. Methods: Samples were collected from HCWs at King Abdulaziz Medical City, Riyadh. A swab from the mobile phone and a questionnaire was given and received from each subject. The swabs were sent to the lab for culture, carrying a serial number to correlate with the questionnaire. Results: Of the 400 samples, 171 (42.75%) showed bacterial growth. Different variables were examined. Of the samples taken from male participants, 54% showed growth, while only 35% of the samples taken from female participants showed growth (P-value= <0.005). In addition, samples taken from phones that are frequently cleaned showed 10% less growth than mobile phones that are not frequently cleaned (P-value= 0.05). The most commonly isolated organisms were Coagulase negative Staphylococci (30%), followed by Corynebacterium (13%). Conclusion: More than one third of the HCW’s mobile phones were contaminated by bacteria. The results support the claim that HCWs’ mobile phones may serve as vectors for transmission of nosocomial infections, and that cleaning mobile phones may reduce this risk.
Michigan Diabetes Knowledge Test: translation and validation study of the Arabic version

Presenter:
Abdulaziz AlQarni

Authors:
Abdul Aziz Algarni, Loai Alqahtani, Mahmoud S. Mahmoud, Emad Almasuadi, Mohammed Aldobayee

Introduction & Background: The quality of life and patients’ self-management is crucial for planning and maintaining a system of patient-centered care. To our knowledge, there have been no valid, reliable, and well conducted translation into Arabic to assess diabetes knowledge of patients with diabetes mellitus. The aim of this study was to translate and validate the Michigan Diabetes Knowledge Test (MDKT) into the Arabic language, and to examine the psychometric properties of the Arabic version. Objective: To validate Arabic translation, and test the reliability of “Michigan Diabetes Knowledge Test”. Method: A standard forward and backward translation was used to create the Arabic version of the MDKT from the original English version. Certain modifications were necessary in the pre-final version to achieve idiomatic equivalence and to account for the socioeconomic and cultural levels of the target population. Reliability was tested for internal consistency using Cronbach’s alpha coefficient. A total of 90 diabetes mellitus patients were interviewed at Khashm Al Aan primary specialized clinic using the Arabic translated Michigan Diabetes knowledge Test. Result: The expert panel was satisfied with the content and face validity of the instrument. Good internal consistency (Cronbach’s alpha = 0.60) was found among the 14-items that the instrument contained. Conclusion: The results of this study showed that the Arabic version of MDKT is reliable and valid tool to measures the diabetes knowledge of Saudi diabetic patients, which can be used in clinical practice.
Introduction: Melanoma is a malignant tumor that arises from melanocytes. It is the fifth common cancer in US, accounts for fewer than 5% of skin cancer cases. Melanoma incidence continuously increases. Five-year survival rates for melanoma increased, but the overall mortality rate remains unchanged. Objective: Assess the association of gender, race and the stage of melanoma at diagnosis in US population. Method: We used data from SEER registry from 1973 to 2011. The study includes 227,509 melanoma patients. We excluded from the analysis duplicate patients and subjects less than 18 years old. Our main study variables included gender, race and stage. Potential confounders included were age at diagnoses, origin, number and site of primary and cause-specific death. Unadjusted and adjusted logistic regression was used to adjust for potential confounders. OR and 95%CI were calculated. Results: Males diagnosed with melanoma were older compared to females (mean= 58.5 and 55.2 years old respectively, p-value= <0.001). Black patients were diagnosed at a younger age than whites and other races (mean=57.4, 46.3 and 55.2 years old respectively). Black patients have the highest proportion of deaths compared to whites and other races (39.4%, 13.7% and 21.0% respectively). Patients diagnosed at late stage of melanoma were males and black. After adjusting potential confounders, males were 22% (OR=1.2, 95%CI=1.2-1.3) more likely diagnosed at late stage compared with females. White patients were 80% (OR=0.2, 95%CI=0.1-0.2) less likely diagnosed at late stage compared with black patients. Conclusion: Males were more likely to have late stage melanoma than females. Blacks were more likely to have late stage melanoma than whites. Gender and racial differences in the stages of melanoma might be explained by access to healthcare inequities or distinct etiological pathways. It remains a matter of future research.
Changing Saudi Medical Students opinions about Research

Presenter:
Abdulrahman Abdullah Alharbi

Authors:
Ahmad Abulaban, Abdulrahman Alharbi, Osama BinDajam, Mohammed Al Jarbou, Hatem Alharbi, Faiz Alanazi, Khalid Aldamiri and Abdulla Al Sayyari

Objective: To investigate and compare medical students’ opinions and attitudes towards medical research in five Saudi Univeristies and to investigate changes in these opinions and attitudes in one of these univesitie over a time period. METHODS: This is a cross-sectional survey based study conducted among medical students in five Saudi universities. This study was performed in 2015 and the results compared between the universities. The survey consisted of five questions enquiring about the medical students’ opinions and attitudes towards medical research. The results in one of these universities King Abdulaziz University (KAU,) were compared to a similar survey done in that university in 2007 in same university. RESULTS: A convenient sample of 924 was enrolled from five Saudi universities were included in the study. Ninety-five (10.3%) of the medical students were not aware of the usefulness and importance of scientific research for their future career. Four hundred and nine (44.3%) stated that they have no knowledge of how to conduct scientific research. On the other hand, the vast majority of medical students (98.1%) expressed willingness and interest in participating in scientific research if offered an opportunity to do that. The percentage of students from King Abdulaziz University (KAU) who strongly agree to participate in research rose from 33.1% in 2007 to 81.5% now (p=0.001). Of all the students surveyed in 2015, 431 (46.6%) had participated scientific research project as undergraduates. CONCLUSION: While most students expressed enthusiasm in participating in a research project, only few of them had sufficient knowledge or skills in doing basic research. It was evident that there was considerable improvement in students’ perception of research in KAU between the first time we asked them in 2007 and the second time in 2015.
Improving activity recognition by using ensemble of classifiers

Presenter:
Tahani AbdulRahman Daghistani

Authors:
Tahani Daghistani

Introduction: Smartphones, Sensors and health application are considered as system to simplify healthcare services such as monitoring. The spread use of such technology made data existing with huge volume, this increase opportunity to data mining research in activity recognition area. The most research focused on the chosen and comparison among classifier separately. Enhancement for more accurate detection is a challenge in activity recognition problem. There is a recent advance in combining multiple classification techniques which known as ensemble of classifier. Thus, contribute to conduct this study to propose activity recognition model to detect the human activities with trying to improve the performance. Methods: The Wireless Sensor Data Mining (WISDM), which publicly available, used in this study to recognize six activities which are walking, jogging, upstairs, downstairs, sitting, and standing. WEKA software used to build the models using meta algorithm Adaboost in combine with decision tree J48 algorithm. During experiments 10-fold cross-validation (CV) approach, the model evaluated based on various performance parameter. Furthermore, the experiments repeated using different iteration number from 10 to 100. Results: The result shows a significant improvement in performance. The overall performance of the model started from 94.04 % using default sitting (ten iteration numbers). The result repeated experiments using different iteration numbers indicate a significant improvement in the performance reached 95.2%. Discussion: J48 alone are slightly better than Adaboost model for standing activity, it classified 97.56% of instances correctly compared to Adaboost model 94.04%. Conclusion: Mining data collected from sensors provide valuable result in activity recognition area. The improvement in performance stills a requirement especially in health field when result using to develop various health systems related to patient’s life style. The improved results motivate to conduct more studies using other different combination for more complex activities.
A descriptive study of self-medication practice in Tabuk City

Presenter:
Khulud Abdullah Althmali

Authors:

Introduction & Background: Self-medication is a common practice in developing countries. Self-medication can be defined as the use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent disease or symptoms without prescription. Objective: This study aiming to determine the prevalence of self-medication practice, find the sources of information and reasons for self-medication practice. Methods: A cross-sectional descriptive study was conduct by 300 questionnaires were distributed randomly to 300 adults in different age group, sex and level of education at Primary Health Care Centers in Tabuk city one of the largest cities in Saudi Arabia. Result: The results of this study showed a high percentage of people who had practiced self-medication. The mean age of respondents was the adolescent. While the common source of self-medication was the private pharmacy. Discussion: Self-medication practices are very common among Tabuk population despite that the public health services are free in Saudi Arabia. This study showed that more than two thirds of respondents (83%) had practiced self-medication at least once in the last 6 months and over the counter drugs purchased from private pharmacies was the most commonly used source of self-medication, (63.8%) reported by the majority of self-medicated patients. Conclusion: This study demonstrated that the self medication is common in Tabuk City of Saudi Arabia. Highlighted the important and the most reasons of self-medication practice.
Prospective Cohort Study to compare the Incidence Rate of Cochlea Mal-function Among Women Undergoing delivery with or without spinal anesthesia (in Saudi Arabia), King Abdulaziz Medical City.

Presenter:
Rawan Humaidi Alanazi

Authors:
Rawan Alanazi, Nada Aljohi, Ghada Alghazlan, Wijdan aljohi, Nasser Tawfeeq, Omar Alshanqeety

Objectives: 1-To examine the incidence of cochlear malfunction in pregnant ladies undergoing delivery with spinal anesthesia versus pregnant ladies undergoing normal delivery without spinal anesthesia. 2-To examine and compare the type of cochlear malfunction in pregnant ladies undergoing delivery with spinal anesthesia or non spinal anesthesia. Method: Prospective cohort study, all Pregnant women between (20-45) years of age who will be admitted to the labour ward at KAMC for normal vaginal delivery during the study period who fulfill the inclusion criteria. The test will be conducted in quiet room preoperatively and postoperatively in the same day using Transient Evoked Otoacoustic Emissions (TEOAEs) ILO 292\DP Echoport is type of Otoacoustic Emissions (OAEs)) at frequency (1KHZ-4KHZ TOAEs), and measure the signal to noise ratio (SNR) for each frequency, it should be more than or equal 3db and to see which frequencies are effected more either middle (1000-1500)HZ or high (2000, 4000) HZ. In addition to the measurements, patients will be asked a set of questions similar to those asked in Audiology Adult Case History. Clinic finding: The study included 44 ears for 22 pregnant women, the mean age of women with spinal anesthesia is 32.8 years (SD= 5.5), and of women without spinal anesthesia is 27.5 years (SD= 5.96). 50% of the women who underwent spinal anesthesia have taken spinal anesthesia before, and 25% of the normal delivery group has taken spinal anesthesia before. There were 3 ears for women with normal delivery who had impairment before but not after. No ear for women with spinal anesthesia had impairment after the procedure; but when the analysis was done for SNR, we found interesting trends comparing the group who underwent spinal anesthesia versus the group who did not. There was a clear trend of a reduction in SNR post spinal anesthesia. Conclusion: Despite our very small sample size, our initial results show interesting trends that indicate a possible effect of spinal anesthesia on cochlear function. We plan to conduct a full audiology test battery on a larger sample to further examine our preliminary results.
Unusual case of foreign body aspiration in healthy adult

Presenter:
Nasser Ibrahim Al Jameel

Authors:
Hajjar Waseem, Al Jurayyed Reem, Al Jameel Nasser

Bronchial foreign body aspiration is a not uncommon incident in children; however, it is rare to be seen in adults without neurological disorder, sedative use, or alcohol abuse. It can be managed successfully with flexible bronchoscopy in most of the cases, except for some cases, which require rigid bronchoscopy or even surgical intervention like thoracotomy1. The objects that are usually aspirated are organic materials such as nuts, seed, vegetables, and bones2. Here we report a case of a healthy 24 years old dental assistant, who was herself undergoing a dental procedure to remove dental caries, and suddenly the metallic instrument “diamond metallic dental bur” has slipped into her mouth and was aspirated to the bronchial tree. She initially developed cough, right-sided chest pain and later shortness of breath, fever, and hemoptysis in the following 3 days. Chest x-ray showed the metallic instrument in the right middle lobe bronchus. It was successfully removed three days after the incident using fibro-optic and rigid bronchoscopy with full recovery. In conclusion, foreign body aspiration is rarely seen in adults in the absence of any predisposing factor. Any delay in the diagnosis can predispose to serious consequences. It should be considered in the etiology of recurrent pulmonary infections, hemoptysis, lung abscess, middle lobe syndrome, and bronchiectasis2. Key words: adult, foreign body aspiration, bronchoscopy.
Medical Imaging and Orthopedic Departments’ Satisfaction using PACS at King Abdulaziz Medical City (KAMC) – WR

Presenter:
Adnan Abdalhafeez Munshi

Authors:
Dr. Sherif Sakr, Mr. Adnan Munshi

Introduction: Picture Archiving and Communication System (PACS) became one of the most essential and important components of any healthcare organization. Objective: The main objective of this research is to examine the level of satisfaction of The Radiologists, Technologies, and Orthopedic physicians in Medical Imaging and Orthopedic Departments at King Abdulaziz Medical City – Western Region. Methods: The required data have been obtained by using a questionnaire as a method of data collection. The whole population (200 participants) of the study will be included. It is represented by a combination of Radiologist, technologists, and orthopedic physicians. Analysis of variances in addition to t-test, have been conducted using the SPSS program. The analysis of variances has been used to test if there are statistically significant variations between respondents regarding the training on PACS, use, usefulness of the PACS system and the overall sample satisfaction of PACS system related to current position, education level, years of practical experience, and years of experience in the area of specialty. The t-test was used to identify if there is a significant difference between male and female participants of the study. Results: The results of analysis of variances detected that, there are statistically significant variations between sample attitudes in terms of use of the PACS system and usefulness related to current position, and there is a statistically significant difference between participants related to years of practical experience in PACS system regarding the use of PACS and training on PACS, and it discovered the significant differences to the side of participants with high years of practical experience in the PACS system. Conclusion: Based on data analysis the study concluded that the majority of participants including Radiologists, technologist, and orthopedic physician’s sample of the study are satisfied with the PACS system.
Assessment of Knowledge, Attitude, and Practice of Hand Hygiene among Medical and Health Profession Students at King Saud Bin Abdulaziz University for Health Sciences

Presenter:
Mohammed Saleh Bin Humran

Authors:
Dr. Khalid Al Ahmary; Mohammed Bin Humran

Introduction: Recently, patients’ safety has become high priority for healthcare organizations. It has been documented that poor knowledge and compliance of healthcare providers toward hand hygiene have contributed to poor patient safety outcomes. Objectives: To assess the health profession students’ knowledge, attitude, and practice toward hand hygiene and to investigate factors associated with poor hand hygiene knowledge and practice. Methods: Study design and setting: This cross-sectional, correlation-descriptive study conducted at KSAU-HS performing clinical rotations at KAMC-RD. Sampling: A proportional sampling was used to calculate the required proportions form each three colleges. Total sample was 270 students including 140 medical, 83 nursing, and 47 respiratory therapy students who were selected using a simple random sampling method. Data collection tools: Adapted and validated KAP questionnaire was used to assess four domains: general information, knowledge, self-reported compliance, and general satisfaction. Results: The knowledge score of hand hygiene was higher for nursing school (84.22±12.98). It also showed that students who took courses covering hand hygiene scored higher in knowledge score (83.28±11.3). The overall average 25th to 75th percentile for compliance score is 88 to 100. Nursing students have higher satisfaction score (72.7%) than their counterparts. Discussion: Medical school and respiratory therapy program are having less attention toward hand hygiene courses or training. This study shows that nursing and medical students reported better compliance for hand hygiene than respiratory therapy students and may explain that they have better knowledge and more focus on their curriculum. Nursing students were generally satisfied with the provided courses, training, and clinical rotation suggests more focus on hand hygiene in their curriculum than medical and respiratory therapy students. Conclusion: The highest knowledge score was among nursing students. The compliance of students did not vary across different colleges. Improved knowledge was found to be associated with improved compliance with hand hygiene.
Assessment of Dental Fear among Patients of King Abdulaziz Medical City in Riyadh

Presenter:
Amjad Mohammed Al-Ghaihab

Authors:
Mashael Althunyan, Lolowh Almogbel, Amjad Alghaihab, Jood Alessa, Aljood Alsolaihim, Dr. Nasser Alshraim

Introduction and aim: Dental fear among patients was studied extensively among other nations. However, limited studies have been conducted in Saudi Arabia. The aim of this study is to evaluate dental fear among King Abdulaziz Medical City (KAMC) patients using the Dental Fear Survey (DFS). Methods: The sample of this study considered a convenient sample of 155 patients attending KAMC aged 19 and above found at waiting areas of the outpatient clinics. The study tool was Dental Fear Survey. DFS is consisting of 20 items measures dental fear on a 5-point scale, where 1 = not at all and 5 = very much. DFS questionnaire consisted of socio-demographic, characteristic-behavioral, and factors contributing to dental fear. The range of possible scores on the DFS range from 20 to 100, where 21-40 scores considered low fear, 41-60 considered moderate fear, and above 60 considered high fear category. The questionnaire was translated into Arabic by official translator. Results: The mean DFS was 45. About 41% were categorized with low fears, 35% were within intermediate fear category, and about 21% reported high fear. Females reported a higher level of dental fear compared to males. Even having high DFS, this would never lead them to postpone nor cancel their dental appointment. One of the most common symptoms of fear is having muscles tension when having dental work done in addition to be very afraid of seeing and feeling the needle injection. Females were more afraid in seeing and feeling the needle injection and seeing the drill. Personal bad experience and others bad experience had an influence on dental fear. Conclusion: Most of KAMC patient experience moderate fear from dentistry. One of the best preventable methods by dentists in decreasing fear is concentrating on the first personal experience with their patients.
Facial Gingival Recession after Orthodontic Treatment Of Anterior Teeth.

Presenter:
Dr. Majed Mayah Alanazi

Authors:
Dr. Majed Alanazi, Dr. Hafez Diab

Background: Orthodontic therapy has been reported by many studies as a risk factor for gingival recession of anterior teeth, while other studies have not found such association. Objective: The aim of the study was to evaluate the gingival margin recession for the labial aspect of anterior teeth before and after orthodontic therapy. Materials & Methods: The study was carried out on 100 study models obtained from Orthodontic Division, Faculty of Dentistry, Riyadh Colleges of Dentistry and Pharmacy. The study models before and after orthodontic therapy will be evaluated using digital caliper to measure the cast crown length on the facial aspect of anterior teeth (the distance between gingival margin and incisal edge) before and after orthodontic treatment. Results: Our results showed a statistically significant increase in cast crown length of the final study models compared to cast crown length of initial study models for facial aspect of all anterior teeth. Conclusion: Considering its strengths and limitations, the findings of this study may lead to the conclusion that the orthodontic treatments predispose the facial aspect of anterior teeth to gingival recession.
Introduction & Background: There are controversies in the post-surgical complication following simultaneous and staged bilateral total knee replacement; many studies have shown an increase in the mortality rate with simultaneous bilateral knee replacement. Other studies are showing evidence that suggest that there is no difference in the complication between simultaneous and staged bilateral total knee replacement. Method: This study is a retrospective study, where we reviewed charts of all the adult patients whom have had simultaneous bilateral total knee replacement, staged bilateral total knee replacement and unilateral total knee replacement of both genders at KAMC between 2005 until 2014. The collected data included demographic data, surgical data, complications and length of stay. We also have collected some variables of interest: Demographic (Gender, Age and Weight), Type of surgery (study groups), Hospital stay, Duration of procedure, Amount of bleeding, hemoglobin level before and after the operation and type of anesthesia. Result: We have a total of 245 patients. 110 (44.9%) underwent staged bilateral total knee replacement (BTKR), 84 underwent simultaneous bilateral total knee replacement (BTKR), and 51 of did the surgery on only one. Out of the 245, 194(79.18%) did not develop any complication and their operation went smoothly, 62(73.81%) were simultaneous BTKR, 89(80.91%) of the staged BTKR and only 43(84.31%) were bilateral TKR. 43(17.55%) developed minor complication which includes, Infection or UTI or Infected knee post operation or pulmonary complication other than PE. 18(21.43%) underwent simultaneous BTKR, 17(15.45%) for the staged BTKR and 8(15.69%) for the unilateral TKR. Only 8 patients have developed major complication (3.27%) of the general population. 4(4.76%) of the simultaneous BTKR and 4(3.64%) of the staged BTKR. None of the unilateral has developed major complication. We found a mean ± SE of the total days of hospital stay for all the groups was 12.58±. 52, for the simultaneous BTKR patients, the mean ± SE of hospital stay was 11.05±0.39 days, and for the staged was 16.19±1.31 days and 9.96±0.58 days, with a p value <.0001. Conclusion: We can say that simultaneous TKR is a save procedure to be performed especially in hospital where there is long waiting list as well difficulty of having elective bed as in our hospital. And we found an increase in the hospital stay with staged grouped compared to simultaneous group.
Decision of Speciality Chosen among Medical Interns

Presenter:
Dana Saud Aldabeeb

Authors:
Wadha Al Otaibi, Sajida Agha, Aamir Omair, Dana Al Dabeeb, Raghad Al Otaibi.

Introduction & Background: Speciality choices among Saudi medical graduates affect the future workload of the health care services in the form of shortage or oversupply in certain specialities. Therefore, medical education faced a huge challenge in the development and improvement of the teaching and learning process as well as faculty training. Different teaching style, early integrated clinical exposure, well-trained faculty members and speciality counselling are factors that strongly affect the graduates’ career choices.

Objective: 1. To evaluate factors those influence the decision of speciality chosen among medical interns at KSU and KSAU- HS. 2. To determine the effect of learning style and academic achievement (GPA) on the graduates future careers.

Method: This study was conducted in two reputed medical colleges in Riyadh, Saudi Arabia; King Saud University (KSU) and King Saud bin Abdulaziz University for Health Sciences (KSAU-HS). This study included all Saudi medical interns, both males and females who were graduated during academic year 2015-2016. It was a quantitative causal-comparative study. The non-probability method i.e. consecutive sampling technique was used. Self-administered questionnaire was used and included three main domains; demographic data, academic data, and validated and reliable questionnaire of Kolb’s learning styles.

Result: Out of 370, total number of medical interns included in the study was 223 with response rate of 60.27%. The percentage of male was higher than female in both groups. Socioeconomic status was similar in both groups. The alpha coefficient for most of the questionnaire items was above 0.05. The majority of medical interns at KSAU-HS were diverger and accommodator and they had significant differences with the specialty chosen. Discussion: Our result showed that the majority of medical interns in both colleges had selected medical, surgical and paediatric specialities. The life style expectation was the most important factor that influenced their future careers. The graduated GPA and learning styles had no significant effect on the specialty chosen among medical interns.

Conclusion: This study concludes there is no differences in the specialty chosen among medical interns in both colleges.
Low Frequency of ETV6-RUNX1 (t 12; 21) in Saudi Pediatric Acute Lymphoblastic Leukemia Patients

Presenter:
Talal Khalid Aljumah

Authors:
Khaled Aljamaan, Talal khalid Aljumah, Saleh Aloraibi, Muhammad Absar, Zafar

Abstract Background: Pediatric acute lymphoblastic leukemia (pALL) patients at King Abdulaziz Medical City represent a pure Saudi Arabian population. ETV6-RUNX1 positive pALL patients have good prognosis as compared to ETV6-RUNX1 negative counterparts. Therefore, frequencies of these two patient groups have a huge consideration in treatment strategies of pALL in a given population. Different geographical locations have been reported to have different frequencies of ETV6-RUNX1 ranging from 10% in Southeast Asia to 30% in Australia. Objectives: Therefore, the objective of this study was to establish the ETV6-RUNX1 status of Saudi Arabian pALL patients and its association with clinical parameters and early remission. Materials and Methods: Clinical parameters and ETV6-RUNX1 status (using FISH technique) of pALL patients attending the Pediatric Oncology Clinic, King Abdulaziz Medical City, Riyadh from 2006 to 2011 were studied. Comparisons between ETV6-RUNX1 positive and negative groups were accomplished using chi-square test or Fisher’s exact test. All statistical analyses were performed using SAS version 9.2 (SAS Institute, Inc., Cary, NC). Results: Out of 54 patients, 33 were male and 21 were females (ratio 1.57:1). B- and T-cell lineages were found in 47 (87%) and 7 (13%) patients respectively. Only 5 (9.3%) patients were ETV6-RUNX1 positive while 49 (80.7%) were ETV6-RUNX1 negative. All ETV6-RUNX1 patients (100%) were of B-cell lineage and 80% (4/5) were in the 3-7 year age group. None of the ETV6-RUNX11 patients had ≥5% blasts (no remission) at day 14 as compared with 9% in the ETV6-RUNX1 negative group (Figure 1). Conclusions: Frequency of ETV6-RUNX1 positive patients (less than 10%) in our pALL patients is much lower than reported for most European countries, North America, Australia and Japan while it is in accordance with ETV6-RUNX1 frequencies from Egypt (11.6%), Pakistan (10%), Spain (2%) and India (5-7%). This shows ethnic differences in genetics of pALL as well as higher frequencies of ETV6-RUNX1 positive pALL mostly in more industrialized countries, probably due to some industrial pollutants or westernized lifestyle.
Determinants of Self-medication among Undergraduate Students at King Saud University; Knowledge, Attitude and Practice.

Presenter:
Khulood Khalid AlRaddadi

Authors:
Khulood AlRaddadi, Reema Barakeh, Shaimaa AlRefaie, Leena AlYahya, Maha Adosary, Khaleel Alyahya

Introduction & Background: In Saudi Arabia, most drugs can be obtained from pharmacies without a professional prescription, and despite the prevalence of self-medication, few comprehensive studies were conducted to assess this practice. Objectives:- To identify the determinants, knowledge and attitude of undergraduate students at King Saud University on the benefits and risks of self-medication.- To identify the drugs commonly used and conditions for which undergraduate King Saud University students practice self-medication. Methods: Quantitative cross-sectional study among a convenient sample of 477 students were selected from medical and non-medical colleges at King Saud University. A self-developed questionnaire contains 26 close-ended questions, developed in English then translated into Arabic. An anonymous self-administered google online questionnaire was distributed through email and social media. Data were analyzed using SPSS (version 21.0). Results: - The prevalence of self-medication within the 3 months of the study period was 50.9% of the respondents (45.18% male and 54.02% female). -Cold and flu symptoms were the commonest indication (medical= 74%, non-medical= 88.2%). - Bacterial and viral infections (P= 0.001) was a common indication among medical students (19.4%). - Analgesics (P= 0.333) was the commonest drug used in self-medication (medical= 89.7%, non-medical students= 85.3%). -Aspirin (P= 0.013) and Herbals (P= 0.0001) were reported higher in non-medical students. Discussion: It was unexpected that our study will show no significant differences in the prevalence of self-medication among medical and non-medical students. Studies conducted in Slovenia and Pakistan showed similar results, unlike the study in Palestine that showed significant differences. Indications, drugs, attitudes, factors, advantages and potentially risks for self-medication all showed some highly significant results. Conclusion: The results showed that half of respondents practice self-medication which demonstrates the need to raise public awareness regarding the right way to self-medicate, becoming more conscious during drugs utilization and the pharmacists’ advisory role.
Prevalence of Smoking Behavior among the Medical and Dental College Students of Aljouf University

Presenter:
Khaled Saud AlSharari

Authors:
Khaled Saud AlSharari, Mohammed Assaf AlSharari, Mohammed Abdulrahman AlAli, Thamer Wadi alanazi, Muteb Hassan Almarwani, Mohammad Hussein Alruwaili, Ali Muqbil Alruwaili, Sultan Faraj Alruwili, Fawaz Aljethi Alsharari, Ashokkumar Thirunavukkarasu

Introduction & Background: The World Health Organization (WHO) has stated that smoking is an epidemic. Smoking kills around six million people in a year. Health professionals such as doctors play a major role for the success of smoking control programs. Since medical and dental students are the future physicians and public health managers, they must be the main target of smoking prevention programs. Objective: The objectives were to identify the prevalence and predictors of smoking behavior among the medical and dental college students of Aljouf University. Method: A cross sectional study with the predesigned questionnaire was carried out among male students of college of medicine and college of dentistry from Aljouf University. Data were analyzed by using SPSS 17 version. Result: The prevalence of smoking was 42.6% for medical and 39.4% for dental college students. Major proportion (61.4%) of the smokers started their smoking behavior at earlier age (less than 16 years of age). The predictors to start and continue the smoking behavior among the students were family history of smoking, stress and social factors such as leisure time with friends. Discussion: Smoking behavior prevalence is very high among the medical and dental college students. Several studies in Saudi Arabia found the same kind of prevalence among the medical students but less among other college students. This is most likely due to stress perceived by the medical and dental college students. Conclusion: Target oriented smoking cessation sessions need to be organized for the students with the smoking behavior. There is significant number of students starts smoking at early age. Hence, regular health education campaigns should be organized at the school level regarding health hazards of smoking.
Introduction & Background: Chronic Kidney Disease (CKD) results in irreversible decline in renal function, which takes several years to develop and progresses to End-Stage Renal Disease (ESRD). In 2008, the overall prevalence of CKD in Saudi Arabia of all stages was 5.7%. Transplantation is the treatment of choice for ESRD. Objective: To assess the Quality of Life (QOL) in living kidney donors inKing Abdulaziz Medical City (Riyadh) in the last five years. Method: This was a cross-sectional survey using the Kidney Disease Quality of Life Instrument short form (KDQOL-SF) to evaluate the QOL of living kidney donors. The study measured 17 domains in KDQOL-SF. Each domain score is up to 100, the higher the score in each domain the better QOL. The questionnaires were handed-over to donors during their follow-up at KAMC, Hepatobiliary Department. Result: The study included 60 donors who donated between 2008-2014. Males were 49 (82%), the age was 32+6.5 years. The donors reported an “overall-mean-score” of (86.7+14.6). Four domains had lower scores between 60-80: “sleep” (61.8+13.8), “emotional-well-being” (71.6+11.1), “quality-of-social-interaction”, and “energy/fatigue”. The other 13 domains had scores > 80. The two highest domains: “role-physical” (97.9+13.3) and “effect-of-kidney-disease” (97.4+8). Discussion: The fear of negative impact of donation on QOL may be the reason behind the shortage of donors, If QOL yields good results in donors this might lead to increased number of donation, which in turn will determine the survival rate and the QOL of ESRD patients. Our study support that donors do have good QOL. Conclusion: Our findings suggest that donors have a good QOL which may result in more donations. It is important to improve the standard of care for donors to enable them to live their life to the fullest.
Incidence and Predictors of Surgical Site Infections Following Foot and Ankle Surgery at a Tertiary Care Center in Riyadh, Saudi Arabia

Presenter:
Abdulaziz Sultan Alsultan

Authors:
Nader S. Al-Kenani, Abdulaziz S. Alsultan, Mariam A. AlOsfoor, Manal Bahkali, Omar A. Al-Mohrej, Suliman AlGhnam.

Background: Surgical site infections (SSIs) have significant impact on morbidity, mortality, healthcare cost and the length of patients’ hospitalization. SSI is the second most common type of hospital-acquired infection in the United States. In the area of orthopedics, foot and ankle surgery has a higher rate of SSIs among other orthopedic procedures. There is limited information about predictors of SSI in Saudi population. Therefore, we aim to examine the incidence and risk factor for SSIs. Methods: This is a retrospective cohort chart review of all patients who underwent foot and ankle surgery between 2010 and 2014 at National Guard Hospital, Riyadh, Saudi Arabia. The data collected included the following variables: patients’ demographics, laboratory investigations, surgery related data, co-morbidities, pre-operative medication and National Nosocomial Infection surveillance. The independent association between variables and infection status was analyzed using logistic regression model. Results: The study included 353 surgeries performed on 295 patients. The overall incidence of SSI following foot and ankle surgery was 3.38%. Adults (≥ 18) were the majority with significant association with infection (P. = 0.021). Adults and Type of surgery were the significant predictors after running logistic regression model. Discussion: This study confirms previous findings about the association between Adults and SSI, This might be due to the well-known association between aging and immune dysfunction. Several studies report that the incidence of SSI seem to be higher after emergency surgeries, this could be due to the severity of surgical injury. Conclusion: The incidence of this study lies between the documented incidence in literature of 1.0% to 6.5%. Adults and type of surgery were found to be independent risk factors for development of SSI following foot and ankle surgery.
Assessment of Biochemical changes in Pregnancy Induced Hypertension (PIH) among Saudi population at KAMC-Riyadh

Presenter:
Khaled Romaizan Alenazy

Authors:
Khaled Romaizan O. Alenazy, Mohammad Jamaan Alharbi, Fares Meshabab S. Alqahtani, Dr.Tarig Karar, Dr. Waleed Al Tamimi, Mr. Mohamed Abdel Fattah

Background: Pregnancy induced hypertension (PIH) makes important changes in biochemical parameters such as increased levels of blood glucose, urea, creatinine, uric acid and transaminases. The high level of proteinuria and hypoalbuminemia are used as indicator of disease severity, affecting around 2-5% of pregnant. Aims & Objective: To compare and correlate between serum urea, serum creatinine, serum sodium, serum potassium, and plasma glucose and urine protein in pre-eclamptic and normotensive groups. Material and Methods: This is quantitative retrospective chart review hospital based case control study involving data from 199 age – matched women of Saudi, discharge from Obstetrics and Gynecology Department of King Abdul Aziz medical city during the period of 2013-2014. The data were collected following standard procedures and statistical analysis was done using independent t – test and correlation. Results: The levels of serum urea, serum creatinine, serum sodium, serum potassium, plasma glucose and urine protein were significantly elevated in pre-eclamptic when compared to normotensives (p= 0.000, p= 0.000, p= 0.005, p= 0.000, p= 0.000, p= 0.000) respectively. There was a significant positive correlation between urea and protein, urea and creatinine (r=0.3 P=0.002), (r=0.7 P=0.000) respectively. Conclusion: The present study concluded that elevated values of serum creatinine, serum urea, and urine protein and serum potassium could be useful predictor of inducing preeclampsia or pregnancy related hypertension.
Medication adherence and depression among patients with Systemic Lupus Erythematosus

Presenter:
Meshael Mohammed Alrasheed

Authors:
Meshael Alrasheed, Nada Alsowaida, Ahmed Mayet, Mohammed Omair and Abdulkareem Alsuwaida

Introduction & Background: Medications non-adherence considered as a common multifactor problem between patients with chronic diseases and complex regimens as SLE. Depression which is the most common neuropsychiatric disorder associated with SLE is one of the strongest predictor found in literature that may lead to patients non-adherence. There are only few studies that correlate adherence problems to depression level and disease progression among SLE patients. Objective: To assess the prevalence of medication non-adherence and depression among SLE patients and to explore the impact of depressive symptoms on adherence to medications. Method: In a cross sectional study of 140 outpatients with SLE conducted at KKUH, we assessed both medication non-adherence and depression severity using paper questionnaires that contain number of questions based on Morisky Medication Adherence Scale (MMAS-4) and Beck’s Depression Inventory (BDI). The disease response to therapy was assessed using SLE Disease Activity Index (SLE-DI). We compared demographic and clinical factors of adherent and non-adherent individuals including depression severity. Results: Of the patients, 62.1 % were reported non adherence to their medications. The low and medium adherence were noted in 16.4% and 45.7%, respectively. The criteria for depression was identified in 35%. The logistic regression showed younger age and moderate to severe depression are associated with non-adherence (OR 2.62; 95%CI 1.02-6.71). Discussion: The prevalence of medication non-adherence and depression among Saudi patients with SLE were noted in 62% and 35%, respectively. Severity of depression and younger of age were strongly associated with medication non-adherence. These results were consistent with results of other studies conducted internationally on patients with SLE and other chronic conditions. Conclusion: SLE patients should be routinely assessed for medication non-adherence and the factors behind that especially depression. Interventions aimed at alleviating depressive symptoms, which are quite common, could result in significant improvements in patient adherence to treatment regimens.
Common Fall Related Injuries in Children Who Presented To The Emergency Department At King Abdul-Aziz Medical City

Presenter:
Yara Mohammed AlGoraini

Authors:
Yara AlGoraini , Manar AlGhamdi , Shahla AlDhukair , Rana Kattan , Khaled AlBedah , Ibrahim AlBabtain , Saleem AlAnazi , Manal Bawazeer

Introduction & Background: Falls can be an everyday occurrence in all age groups and gender. Falling is the common leading cause of non-fatal and unintentional injuries in many developed countries. Objective: The study was conducted to identify the common type of injuries associated with falling down in Saudi and non-Saudi children up to 17 years old and to determine the relation between the type of injuries and outcomes. Method: A cohort analytic study was conducted of all children aged from 0 to 17 years old who presented to the Emergency Department (ED) during 2001 to 2014 with fall related injuries and associate it with the outcomes at King Abdul-Aziz Medical City (KAMC) in Riyadh. Data entered by using a computerized ED logs and analyzed by Statistical Package for Social Sciences (SPSS) version 20. Result: Boys experienced significantly higher rates than girls. The upper limb fracture was the most common type of injury overall (40.6%). Middle childhood was the most common age group with fall related injuries. Majority of the children hospitalized in less than 12 days, while 4.7% of the patients hospitalized for 12 days or more. The majority of the patients presented to the ED released home, pending or transferred. Discussion: The male dominance noted and has been comparatively reported with the same findings in multiple countries. 32.7% of the presentations accounted most commonly to middle childhood children, contrasted to toddlers as they spend most of their time at home, which confirmed by a similar study from Karachi. The commonest type of injury is upper limb fracture (40%) with the same finding in a study reported from Saudi - Tabuk and US - New York. Conclusion: Childhood fall related injuries are common and could contribute to a significant morbidity and mortality in Saudi Arabia if we don’t take an appropriate action.
Saudi Community Perception of Nursing as a Profession

Presenter:
Haiya Mansour Al Beshi

Authors:
Haiya Mansour Al Beshi, Dr. Hala Saiad, Jawahir Al Nfiey, Alham Al Anziy

Introduction & Background: Nurses are the largest group of healthcare providers, and the nursing shortage is a global concern. Due to this shortage, Saudi Arabia depends heavily on expatriate nurses from different countries. How the Saudi community perceives nursing as a profession will affect the nursing recruitment and retention. The aim of this study was to explore the Saudi community perception regarding nursing. Objective: The aim of this study was to explore the Saudi community perception regarding nursing. Method: A descriptive cross-sectional design was used to collect data from a convenience sample of 600 male and female Saudi participants. Two tools were developed by the investigator to collect the data: Demographic characteristics questionnaire and the perception toward nursing questionnaire. The questionnaires were carefully constructed and piloted with 20 participants. Non-parametric test has been used to analyze the 29 item Likert scale that measure the strength of the participants agreement was used with one is strongly disagree and 5 for strongly agree. Result: Most of the participants (58%) were 20 to 40 years old. Slightly more than half of them (50.2%) had a bachelor degree and 60.4% had a family member or a friend work as a nurse. 94.2% of the participants perceive nursing as a human, respected profession but it is not appreciated by the society. Most respondents indicates that nursing is important to patient recovery, improves health, and provides self-actualization (87.2%; 78.4%; 75.6%). 58.0% mentioned that Saudi nurses are better than foreign nurses and only 30.0% think that male nurses are better than female nurses. 36.6% of the participants perceive that nursing conflict with the customs and traditions of the Saudi society and 49.2% feel that Saudi nurse can get marry. 30% indicated that they will allow their daughter, sister or any of their relative to pursue a career in nursing. Discussion Conclusion: Even though most of the participants have generally a positive perception toward nursing still only 30% have the intention to recommend it as a career choice. Improving the nursing profession's prestige and social position as well as providing educational programs about nursing profession to the young generation and their parents might encourage more candidates to enter the nursing profession.
Patients’ Expectations and Satisfactions of Foot and Ankle Surgery in KAMC, Riyadh

Presenter:
Omar A. Al-Mohrej

Authors:
Omar A. Al-Mohrej, Waleed K. AlSarhani, Ahmed O. AlMohrej, Emad M. Masudi, Nader S. Al-Kenani

Introduction & Background: Patient expectations are anticipation about the results of a consultation or surgery. However, there is scarcity of data about patient expectations in foot surgeries in Saudi Arabia. Objective: Our study aimed to determine patient expectations of foot surgeries and whether the surgery was successful in addressing patient expectations. Method: This survey based cross-sectional was done on patients who underwent elective foot/ankle surgeries in 2014. An electronic engendered list of random medical record numbers of the patients was used. The questionnaire was adapted from another study. The participants were contacted via their phone. Result: A total of 383 participants were contacted. Half of them were male (51.7%). The sample included participants form all ages. Most of the participants underwent the surgery because of the pain (74.9%) followed by the movement (37.1%) while only (9.4%) underwent the surgery because of cosmetic reasons. Most of the participants were satisfied regarding the results (80%) while only (3.4%) were not. Discussion: The implication of the finding of this study will help in understanding the expectations of the patients who undergo foot and ankle elective surgeries in Saudi Arabia, which may aid in adjusting surgical methods and techniques to meet the needs of the patients. Conclusion: The study will give orthopedic surgeons an idea about how some patients may adopt different ideas and concerns regarding their surgeries, which will widen their communication and surgical skills.
Seat Belt Use and Distracted Driving Behaviors Among Healthcare Providers In Saudi Arabia

Presenter:

Laura Ibrahim Alolayan

Authors:

Ayman jawadi, Thuraya Alsumi, Laura Alolayan, Salwa AlRashed Alhumaid

Introduction & Background: Motor vehicle accidents and non-compliance to seatbelt have been a continuing safety issue in Saudi Arabia for decades. Although seatbelt has been a mandatory law in Saudi for more than a decade, a lot of studies showed that non-compliance prevalence to seatbelt use is very high. There are no studies, however, that specifically discussed healthcare providers’ compliance to seatbelt and prevalence of distracted driving behaviors (DDB). Objective: The aim of this study is to determine the prevalence of seatbelt use and DDB among healthcare-providers in Saudi Arabia and compare it to non-healthcare providers. Method: The study was carried out in Saudi Arabia from January to June of 2015. A cross-sectional online questionnaire was distributed among healthcare-providers through e-mails and social media using a snowball-sampling approach. An Arabic version of the questionnaire was distributed among non-healthcare. We received a total of 695 responses that were all included. Result: The prevalence of seatbelt use was 43% among healthcare-providers, and 13.3% among non-healthcare providers. The most common factor associated with non-compliance to seatbelt among both groups was movement restriction. Practice of DDB was 98.6% among healthcare-providers, and 86.5% among non-healthcare providers. Discussion: The study revealed that there is statistically significant difference in compliance to seatbelt use by healthcare providers compared to non-healthcare providers. We believe that this is due to more exposure by healthcare-providers to motor vehicle accidents’ consequences and higher level of awareness about traffic safety compared to non-healthcare providers. There was no statistically significant difference in regards to practice of DDB among healthcare-providers and non-healthcare providers, yet the rates are very high compared to other countries’ studies. Conclusion: Campaigns are needed to increase awareness of the importance of using seatbelt and avoiding DDB in Saudi Arabia.
Application of the Kano model for determining services attributes preferences of hospital inpatients.

Presenter:
Ayman Abdulmajeed Aldeheshi

Authors:
Ayman Aldeheshi, Abdulla AlSayyari, Fayez Hejaili, Maha Jaradat

Introduction & Background: Patient satisfaction is a pivotal component of good patients care. We decided to use Kano model to assess clients’ responses to the presence and absence of different services. Objective: To explore the inpatients’ expectations and preferences in different service attributes. Method: Comparative cross-sectional study based on the Kano model that allows service attributes to be classified into a “must”, “attractive” or “indifferent”. Result: 100 patients were included. The top two “must” attributes were “cleanliness of the rooms” and “quick response by nurses”. The top two ‘indifferent’ attributes were “visitors to be allowed all the time” and “rounds starting on time”. The two top attributes perceived as being “attractive “were “being provided with magazines “ and “having personal attention from doctors”. Whereas the medical patients ranked, “informed about condition” as their top “must” attribute, the surgical patients opted for “cleanliness”. The top ‘attractive’ attributes were ‘having a private room by the medical inpatients and”personal attention from doctors” by the surgical inpatients. Whereas the medical patients ranked “visitors all the time” as their top ‘Indifferent’ attribute, the surgical patients opted for “ward rounds being on time”. More males than females considered “being able to understand explanations “as a “must” attribute” (p=0.017). There were no other significant differences seen between male and female respondents. Discussion: Conclusion: Health care institutions must study the service needs of their patients and reflect this on services they provide. Attributes considered a “must” need to be implemented; “indifferent” attributes should have less emphasis paid. If resources allows, the “attractive “attributes should be implemented as they have added value.
Risk Factors Assessment Of patients Diagnosed With Developmental Dysplasia Of The Hip In Saudi Arabia

Presenter:
Bander Saad Alrashedan

Authors:
Bander S. Alrashedan, Shaker Alamir, Ayman Jawadi, Jameel Fakeeha, Ayman Jawadi, Mohammed Alblaihi

Introduction & Background: Early detection of developmental dysplasia of the hip (DDH) will prevent future complications on affected patients. This study was established due to insufficient data registered in Saudi Arabia. Objective: We assessed the risk factors of DDH which are (family history, female gender, breech presentation, weight more than 4 Kg, oligohydramnios and being first child, and multiparty), average age of presentation, presence of known illnesses associated with DDH, and DDH type, side distribution on our patients. Method: A multicenter case series which were took place in KSMC, and KAMC studying all patients who presented to either hospitals from start of 2008 to the start of 2014. No Exclusion criteria. Data that was obtained from files were (DDH risk factors, Age at presentation, and type of referral and its origin). Our data sources were plain X-rays, and files of the patients. All data were put in Excel sheet and analyzed by SPSS. Result: Number of patients identified was 574, 86.5% of them were females. - Average age of presentation is 16.3 SD: 13.7 months. - 28.75% (P=0.28) had family history, 15% are first child (P=0.049), 9.4% (P=0.03) had breech presentation, and 1% (P=0.33) were diagnosed as either, oligohydramnios, or had a weight more than 4 Kg, or were Twins. -65% percent were primarily diagnosed in Riyadh, While 35% were primarily diagnosed outside Riyadh. Discussion: Our patients are being lately diagnosed with DDH in Saudi Arabia which is a major contribution of complications due to aggressive treatment. Unfortunately patients who were primarily diagnosed in rural areas were detected earlier than who were presented in Riyadh. There is no significant in side distribution of the disease which opposes what literature says. The most common risk factors we found in male and female patients are being first child, and breech presentation. Female patients are in increased risk of DDH more than male patients by around 5 folds. There is no strong evidence from our data that clubfeet is associated with DDH. Conclusion: our patients are exposed to extremely invasive procedure with possibly poor outcome due to delay in diagnosis. Diagnosis of DDH needs a careful history and proper physical examination. Increasing awareness of the common risk factors will aid in early diagnosis.
Energy Drinks Consumption among Adolescents Resident in Riyadh

Presenter:
Asrar Sayar Alenezi, Afnan mohammed bin jabal

Authors:
Hala Saed, Afnan Jabal, Asrar Alenezi

Introduction: Energy drink consumption is very popular worldwide especially among adolescent. The purpose of this study was to determine energy drink consumption among adolescents in Riyadh. Methods: A non-experimental, cross-sectional design was used to collect data from a convenience sample of 200 male and female adolescents aged 10-19 residents in Riyadh. 40 item self-reported questionnaire was used to collect the data. The questionnaire consisted of Socio-demographic data, frequency of energy drink consumption per day, reasons for consumptions, and knowledge about the side effects of these drinks. Results: Fifty eight percent of participants (n=117) reported consuming one or two energy drinks per day and 24% started to drink it when they were 10 years old. The majority of users consumed energy due to peer pressure (43%), increase energy (16%), help to be awake (20%), to study (9%). Majority drink it at any time (56%), 70% of the users brothers and sisters also consume it. Heart palpitation were experienced by 47% of users, 49.5 % reported feeling of high level of attention and activity, followed by a sudden laziness. 29% reported having headache and 35.5% feel tension and mode change. Discussion: The frequency of energy drinks consumption by Saudi adolescents is relatively high, with 58.5% consuming one or two cans each day. This percentage is higher than that reported among young adults in Western countries (Viell et al., 1996; Malinauskas et al., 2007). A previous study on Saudi adolescents reported that 22% of males consuming five cans or more each week (Musaiger et al., 2013). Conclusion: using energy drinks is a popular practice among female and male adolescent for a variety of reasons. Further research should identify if adolescent and their parents recognize the physical effect of the caffeine that present in the energy drinks and its associated health hazards.
Analysis, quantification and antibacterial activity of a traditional Chinese medicine formula

Presenter:
Hani Obaid Alanazi

Authors:
Alanazi H., Almukaibil N., Al Dulaimi O., Li W.-W.

Introduction Natural compounds from plants have been used throughout human history and they remain an important source for new pharmaceuticals. Huoxiang Zhengqi liquid is one of these pharmaceuticals used for the treatment of various conditions. Aim & Objectives: To evaluate the antibacterial activity of HXZQ. To detect the chemical entities by GC-MS. Methods: Huoxiang Zhengqi oral, Ten ml of HXZQ was extracted by hexane. The hexane fractions were combined, then dried over sodium sulphate, and finally evaporated to obtain hexane extract containing the volatile compounds. The residue aqueous fraction kept for further studies. Chemical analysis and quantification of patchouli alcohol The GC chromatography proceeded in an oven Volatile Antimicrobial activity 96 well plate is used with alamar blue as indicator. Ampicillin was used as a positive control for the assay. Results: Eight compounds have been identified from the hexane extract of. The main compound is patchouli alcohol. 46 compound were detected from aqueous fraction including honokiol and magnolol MIC on both microorganisms were 6.25 mg/ml. Discussion The compounds detected in the aqueous fraction were composed of sugar molecules which have no antimicrobial activities, magnolol and honokiol were recorded to have antibacterial abilities in other researches, however their contribution to the antibacterial activity of this herbal combination must be evaluated in the future Patchouli alcohol an important sesquiterpene used for the synthesis of the anticancer agent Taxol, this terpene now under research by the Drug Discovery Group in the ISTM/ Keele to evaluate its antibacterial activities, primary results are good indicating that patchouli alcohol has moderate to good antibacterial action on several kinds of bacteria. Conclusion: The high contribution of inactive molecules like sugars reduce the antibacterial activities of this herbal medicine. Future work Further purification and separation of active antibacterial leads from this medicine is recommended study. Participants of the study were recruited from schools and malls in Riyadh. The data were collected to utilize a structured self administered questionnaire which developed by the researchers in the presence of facilitator to translate the items of questionnaire. The aim of this study is to assess the effect of using energy drinks on the teenager’s health at Kingdom of Saudi Arabia (KSA). The participants who participate in these study attitude well and help to complete the questionnaire clearly. (8.5%) didn’t has the correct knowledge among the energy drinks, because they think the energy drinks give them good supplement. Parents or caregivers should be very aware for the effect of energy drinks on adolescent, And providing health education program to adolescent on the house and school.
Value of Didactic Echocardiographic Sessions in Students’ Academic Performance during Cardiovascular block in a PBL Undergraduate Medical Curriculum

Presenter:
Sultan Yousef Saud Al-Howti

Authors:
Sultan Yousef Saud Al-Howti, Mohammed G Al-Ghamdi

Background: Echocardiogram (echo) is a diagnostic tool in cardiovascular medicine. Echo has ability to demonstrate anatomical, physiological and pathological features of normal and diseased heart. In the literature review, we did not find any correlation between the impacts of didactic echo sessions on the academic performance of undergraduate medical students. Aims: To evaluate incremental value of an extra-curricular weekly, focused echo session on students’ academic performance, during the Cardiovascular Block of a PBL based curriculum. Methods: This is a prospective, randomized, intervention-control, open labeled study with blinded endpoints. Seventy-seven male students were randomized into interventional or control groups. The interventional group received six didactic, multimedia echo sessions in addition to the standard curriculum, which delivered to both groups. The assessment tool was students’ GPA, total and domain-specific written exam marks at the end of block. Results: Both groups were similar in the socio-demographic characteristics and baseline GPA. Eighteen out of 39 students (46%) in the interventional group attended all sessions. No statistically significant difference found between the two groups in the end of block GPA, total marks or domain specific marks. Academic performance was significantly better among those students who attended all sessions as compared to those who did not, with obvious dose response effect. In comparison with the control, group students who attended all sessions achieved significantly better score in physiology, pathology and clinical aspects. Conclusions: Echocardiogram is a potential educational tool to improve students’ academic performance. More studies with larger sample size will support our findings.
The Association of Previous Hajj Performance on the Diabetes Preparation during the Hajj Season

Presenter:
Albaraa Yousef Alsini

Authors:
Albaraa Yousef, Ziyad Alakkas, Khaled A Alswat

Introduction & Background: The Hajj is the Fifth pillar of Islam, an annual Islamic pilgrimage to Makkah, Saudi Arabia and a mandatory religious duty for Muslims which must be carried out at least once in their lifetime. During Hajj, pilgrimages perform a series of physical practice which considered moderate in intensity. The intensity of the physical activity during Hajj may precipitate T2D patients for acute complications. Objective: The primary study aim was to assess the patient readiness to Hajj trip and its association with type of care, advice received and history of multiple hajj performance. Method: A cross-sectional study, collected from the Pilgrimages with diabetes during the Hajj season. Baseline characteristics were collected by a formal interview and the measurements were self-reported. The primary outcome was to evaluate the patients’ Hajj readiness and the association of the previous Hajj performance on this outcome. Result: Of the 262 patients with diabetes participated, 72.9% have type 2, mean age of 53.1 years; mean duration of diabetes is 9.23 years. Compared between patients with diabetes participated who did Hajj for the 1st time to who did it more, 79 (30%) vs 183 (70%). Having enough medication 67.1% vs. 67.2% (p 0.63), extra-supply 20% vs. 20.8% (p 0.23), checking glucose during Hajj 16.5% vs. 20.8% (p 0.42), wearing medical wristband 5.1% vs. 6.0% (p 0.77), and having hypoglycemia rescue kit 20.3% vs. 18.3% (p 0.67), respectively. Those who were seen by the Endocrinology/Family physicians were more likely to inform their physicians about the Hajj but only those seen by Endocrinologist were more likely to be offered a medical letter explaining their condition. Discussion: observed poor readiness parameters despite the multiple previous Hajj performance may be related to lack of proper patient-physician communication as well as seeing general practitioner who may not aware about the recent related recommendations. Increase awareness among the providers and among the public about the importance of the clinic visit and informing the provider about the Hajj plan will increase the chance of proper readiness for such trip. Conclusion: Except for carrying enough medications, pilgrimages with diabetes readiness parameters were far below 50% which indicates poor preparation for Hajj. No impact of previous Hajj performance on the study primary outcome.
Association between Breastfeeding and Dental Caries in Saudi Preschool Children

Presenter:
Abdulrahman Ahmed Alshehri

Authors:
Abdulrahman Ahmed Alshehri, Fawaz Alshehri

Introduction & Background: Early Childhood Caries (ECC) is a rapidly progressing disease leading to severe pain, anxiety, sepsis and sleep loss, and is a major health problem particularly for disadvantaged populations. Many studies suggest that breastfeeding may promote dental caries, while other studies have not found an association. Therefore, we sought to examine the association of breastfeeding during the first two years of life with dental caries between the ages of 30 and 66 months. Objective: To assess the potential association of breastfeeding and some other factors with the risk for early childhood caries (ECC) among young children in Saudi Arabia. Method: A cross-sectional study was conducted with male and female preschool children, aged between 30 to 66 months. A structured questionnaire were administered to the mothers to inquire about the feeding pattern of their children and to collect data about their socio-economic status. The data were modelled using a Chi square test with a significance level of 5%. Result: ECC was observed in 89.66% of the children examined. The group most affected with caries was among the mixed breastfed group with 37.07% compared to 31.02% of those who were exclusively breast fed. Feeding practices showed the association between ECC and breastfeeding (P=.0004) in children before 12 months of age. Discussion: The frequency of caries in this study was 89.66%, which is considered high in comparison to the most of previous studies. The highest caries prevalence (37.06%) was recorded amongst children who had mixed breastfeeding, followed by those who were predominantly exclusively breast fed. Opposite to the finding of Tsuboshi et al, who found that breastfeeding for over 18 months enhanced the prevalence of caries, in this study breastfeeding for less than 6 months enhanced the prevalence of caries. Conclusion: It is concluded that children who were breastfed by mixed breastfeeding experienced caries the most. The shorter the duration of breastfeeding, educational level of mothers and relationship of parents correlated with the etiology of ECC.
Introduction: Basic life support (BLS) is a set of essential skills that has been proven to decrease the mortality and morbidity following sudden cardiac arrest (SCA). The American Heart Association has emphasized on the importance of mastering the BLS skills for all health care providers. This study is aimed to evaluate the current level of knowledge, attitude and skills of the undergraduate medical and health care students towards BLS. Methods: A cross-sectional questionnaire-based study was conducted. A well-structured questionnaire was distributed among students of various healthcare-related colleges in Saudi Arabia. The questionnaire consisted of 3 major parts that evaluated different aspects of BLS skills and knowledge. Results: 750 undergraduate students in the fields of applied medical sciences, dentistry, medicine, nursing and pharmacy participated in the study. Only 369 (49.2%) students were BLS certified at the time of the study. Over 99% of the participants had a positive attitude towards BLS. However, up to 90% of the participants were not able to identify some of the essential skills of BLS such as how to conduct a pulse check, how to deliver rescue breaths or how to use an AED when available. Less than half of the participants had the confidence to use their knowledge and skills in real life situations. Conclusion: The study has revealed the positive attitude towards BLS. However, there was a lack of adequate training, experience, knowledge and skills in a significant number of participating students. Frequent BLS training as well as incorporating the BLS skills in the academic curricula may improve students’ BLS knowledge and skills.
Causes of Readmission of Newborns Within 7 Days Post Discharge from the Newborn Nursery  2010-2011

Presenter:
Majed Abdullah Alsulami

Authors:
Majed Alsulami, Dr. Saif Alsaif

Introduction & Background: Neonatologists generally recognize that jaundice or hyperbilirubinemia is the most common cause of readmission within neonatal period. Other studies mentioned other causes like Respiratory distress, poor feeding, sepsis and CNS pathologies. Objective: To determined the common causes of readmission of neonates after discharge from nursery within 7 days at KAMC from (2010 - 2011). Method: Study Design: A cross section study by reviewing the medical records. Study Subjects: All newborns were discharged from KAMC and readmitted within 7 days after birth from 2010-2011. Result: Most common causes of ER visit include jaundice (38%), GIT (11.3%), GUT (11.4%) , respiratory(9.3%) and poor feeding (8.6%). Conclusion: The Jaundice was the most common cause of readmission in all age group of gestational age except in babies who were between (29-33) majority of them readmitted with gastrointestinal pathology and to rule out sepsis (ID). TcB decrease ER visit due to jaundice from 30% to 22.4% and readmission rate decreased from 15% to 5.6%.
Exploring the Impact of Laboratory Information System (LIS) On End Users from an End User Perspective

Presenter:

Hisham Ammar Gadi

Authors:

Hisham Ammar Gadi, Bakheet Aldosari - PhD

Introduction & Background: Laboratory Information System (LIS) is one of the essential systems in modern healthcare organizations as it aids in collecting, storing and transmitting patients information to various healthcare providers. Though such systems have great advantages, there is a great need of assessing its direct impact on end users. The purpose of this study is to examine the level of impact of LIS among users in a tertiary healthcare facility in Saudi Arabia. Method: Study location was at KAMC-National Guard laboratory department in Riyadh. The study is designed as a cross sectional quantitative study using a survey approach as method of data collection. 268 completed questionnaires returned out of 427 distributed response rate of 62.76%. The questionnaire was developed to examine LIS impact from users’ perspective on five interrelated variables; External Communication, Service Outcomes, Personal Intentions, Personal Hassles and Increased Blame. Statistical analysis was achieved using descriptive statistics, Pearson correlation, ANOVA and LSD Post Hoc tests. Result: Study findings showed that users had a general positive perception towards the impact of LIS. It also showed a significant relationship between a number of user characteristics and External Communication, Service Outcomes, Personal Intentions, Personal Hassles and Increased Blame. The results showed a range of significant correlations among the study variables, both positive and negative in direction of relationship. Discussion and Conclusion: LIS Users have shown a generally positive perception toward the impact of LIS on them personally and on their daily work routine. The findings of this study can provide an initial assessment for laboratory management regarding the impact of LIS on users that can help further improvements in the future. Positive impact is a good indication of LIS success in work environment and this can pave the way for more advanced and user efficient system experience in the future.
Causes of Readmission to Pediatric Intensive Care Unit in King Abdul-Aziz Medical City– RIYADH

Presenter:
Abdullah Juman Tammas

Authors:
Dr. Hala alalem, Abdullah Juman Tammas, Rakan Al darrab

Introduction & Background: Pediatric intensive care (PICU) units are specialized sections in hospitals which deal with severe conditions requiring special care. Many conditions require admission to PICU including respiratory conditions, neurological conditions, infectious conditions and many more. This study aims to identify the common causes of early readmission i.e. less than 48 hours post discharge in King Abdul-Aziz Medical city-Riyadh (KAMC). Objective: - To identify the common causes for readmission to PICU within 48 hrs. of PICU discharge (between 2009-2013). - Secondary objective: - Determine the prevalence of readmission to (PICU) within the period of 2009-2013. Method: This is a cross sectional study. Patients chart were reviewed retrospectively from the medical records department. The data was entered to data collection sheet and finally statistical analysis was done using SPSS to calculate means, medians and Frequencies. Result: 3714 admissions to KAMC PICU between years 2009-2013. With a rate of 1.34% (50 patients) early readmitted. The highest cause of early readmission was due to respiratory conditions followed by sepsis and shock. Discussion: 1.34 % is the prevalence at KAMC. Centers in the United States of America showed similar prevalence varying from about 1.2% to about 1.95 %. This is probably because the PICU center at KAMC is well equipped and it strictly adheres to protocols that are similar to those in North America leading to the similar prevalence. Respiratory conditions like bronchial asthma exacerbation, bronculitis and others accounted for 50% of the readmitted patients. Conclusion: Knowing the causes of early PICU readmission aids a lot in the performance of PICUs as protocols can be modified to decrease future incidence of readmission. In our center respiratory conditions were the highest cause for early readmission.
Prevalence, Risk factors and Outcomes of Methicillin-Resistant Staphylococcus aureus Colonization in Critically Ill Patients

Presenter:
Badr Nasser Alhamadi

Authors:
Dr. Hassan Dorzi, Badr N. Alhamadi, Meshari A. Almutairi

Background: Methicillin-resistant Staphylococcus aureus (MRSA) is an important hospital-acquired infection. Its prevalence has been increasing in the general population recently. In this study, we examined the prevalence of MRSA colonization in patients admitted to the intensive care unit (ICU), its risk factors and the association with morbidity and mortality. Objectives: To determine the prevalence of MRSA in patients admitted to ICU of KAMC-Riyadh, and to evaluate the relationship between MRSA colonization and ICU-acquired MRSA bacteremia and pneumonia.

Methods: This was a retrospective cohort study of all patients who were admitted to the ICU of a tertiary-care hospital in 2011, had nasal swab for MRSA colonization on admission and stayed in the ICU for >48 hours. We calculated the MRSA colonization prevalence and studied the association between MRSA colonization status and patient characteristics and outcomes, including infections due to MRSA and mortality.

Discussion and Results: The cohort included 464 patients with the following characteristics: age = 51.7±21.9 years, APACHE II score = 23.3±8.7, 65.9% males and mostly admitted from the emergency department (40.7%) and wards (30.2%). Thirty-one (6.7%) patients were MRSA colonized and had similar age, gender distribution, chronic comorbidities and admission APACHE II score compared with the other patients. Patients referred from other hospitals had the highest prevalence (19.4% versus 6.2% for the other patients, p=0.02). Only 3 (0.6%) patients of the cohort had MRSA bacteremia during ICU stay and all were MRSA colonized (p<0.001). Furthermore, 14 patients had respiratory tract infection due to MRSA, 9 (64.3%) of whom were MRSA colonized (p<0.001). MRSA colonized patients had similar hospital mortality (38.7% versus 41.8%, p=0.74) and length of stay (42±43 versus 55±97 days, p=0.48) compared with the other patients. Conclusion: MRSA colonization was present in 6.7% of ICU patients and was associated with MRSA bacteremia and pneumonia, but not with mortality.
Astroblastoma is a rare brain tumor occurring in children and adults, rarely in the elderly. It constitutes up to 3% of all brain tumors. We report a case of a 14-year-old girl who presented with recurrent seizures and minimal right hemiparesis. Magnetic resonance imaging (MRI) revealed a left fronto-parietal brain tumor. It was managed with subtotal resection in a local hospital. Subsequently, she was referred to Princess Nora Oncology Center for further characterization and management. Pathology slide revision revealed well-differentiated astroblastoma. Upon follow up, the patient had multiple recurrences of the same tumor and emergence of a new lesion at the area of Sylvian fissure. Excision of the emerging tumor revealed anaplastic astroblastoma. Astroblastoma is a glial tumor that predominantly affects females. Its clinical progression is unpredictable, with high recurrence rate. Surgical intervention is considered the mainstay of treatment, while radiotherapy and chemotherapy effectiveness is debatable. To our knowledge, this is the first reported case of well-differentiated and anaplastic astroblastoma as two separate neoplastic lesions in the same patient with its clinical, radiological, and pathological features.
Penetrating heart injuries is considered a challenging problem. Patients who reach the hospital alive require immediate resuscitation and excellent surgery. Objective: Aim of this study to determine the patient’s outcome of penetrating cardiac injuries in our center. Material and methods: During the 7-year period from January 2008 to 2015, retrospectively we collected and recorded data of managed thirty-one patients with penetrating stab wound of the heart who presented at our trauma center in King Khalid hospital and Prince Sultan medical services, Al-Kharj, Kingdom of Saudi Arabia. Only patients discharged from the hospital considered survivors. Results: Twenty-six patients (83.9%) were males and five (16.1%) were females. The mean age of the patients was 26.48±11.20 years. The overall mortality was eight patients (25.8%). Systolic blood pressure (SBP) ≤90 mmHg was found in 23 patients (74.2%) whereas eight (25.8%) had SBP≤50 mmHg. Nine patients (29%) were unconscious. The percentage of patients with SBP≤50 mmHg and unconscious was significantly higher among non-survivors. The right ventricle was the most frequently injured cardiac chamber (48.4%), followed by the left ventricle (19.4%), but right atrium was injured in four patients (12.9%), whereas the left atrium was in three patients (9.7%) like the pulmonary artery. Concerning wounded chambers, there is no significant differences between survivors and non-survivors. Discussion: Our results show a similar distribution of penetrating injuries as compared with mentioned study by Tang and coworkers (9), in which the right and left ventricular injuries included 86.5% of their patients. In our study mortality rate was eight patients (25.8%). The main cause of death was shock due to bleeding. Rhee and his associated (6) reviewed performed found an overall survival rate of 19.4% for adult penetrating cardiac injuries in their study. Conclusion: The key to successful management is early diagnosis with aggressive and accurate resuscitation measurement and surgical repair to improve the patient’s outcome.
Assessing the Need for Antimicrobial Use Guidelines among Staff at King Abdulaziz Medical City, Kingdom of Saudi Arabia

Presenter:
Salwa Rashed AlRashed AlHumaid

Authors:
Salwa Alrashed Alhumaid, Wala Brnawi, Haya Aloraini, Munira Alkhashan, Atheer Alotaibi, Laura Alolayan, Amjad Almohawis, Dr. Henry Baffoe, Dr. Hanan Balkhy.

Introduction & Background: Recent studies show antimicrobial resistance to be an emerging problem in the medical community. Evidence-based guidelines can improve antibiotic usage, but are difficult to construct and implement. Prioritization of current knowledge and practice habits can enhance efficient message delivery. Objectives: To better understand which guidelines should be prioritized, we surveyed knowledge, attitudes, and practices among the medical staff at King Abdulaziz Medical City (KAMC), Riyadh, Kingdom of Saudi Arabia (KSA). Methods: Between Jan1-Mar1, 2013, a convenience sample of 759 physicians and medical residents at KAMC was contacted via email and they were requested to complete a 20-minute, web-based survey that included five vignettes for three practice settings (primary care, intensive care and medical residents). Results: Among 134 (49%) of 285 primary care physicians who responded, >90% correctly answered vignette-one (oral amoxicillin for uncomplicated Group A streptococcal pharyngitis) and vignette-two (oral TMP-SMX for seven days for uncomplicated E.coli UTI). More than 70% of participants correctly answered vignette-three (oral moxifloxacin for uncomplicated acute maxillary sinusitis) and vignette-four (oral ciprofloxacin for complicated S.pneumoniae in a smoker). Approximately 50% correctly identified TMP-SMX as a better choice than ampicillin for acute bacterial prostatitis (vignette-five). Correct answers on vignettes were not associated with age group, gender or training status (resident-or-not). No significant associations (p <0.05) were found between attitudes and performance on the vignettes. Discussion & Conclusion: Based on the vignette scores, guideline creation and dissemination can be prioritized. Vignettes one and two showed good awareness and correct action so inclusion within the guidelines may not be necessary. The most urgent gap in knowledge was for drug use in acute bacterial prostatitis (vignette-five). Future studies should focus on methods to improve participation, to evaluate the value of vignettes as a guide to prioritization, and the knowledge and attitudes portions of the survey.
Demographics and Clinical Characteristics of Leprosy in a specialized center in Saudi Arabia.

Presenter:
Salman Ahmed Bahammam

Authors:

Introduction: Although leprosy has been in a state of decline in Saudi Arabia, it still exists and not yet eradicated. To our knowledge, this is the first study in assess clinical presentation of leprosy at the time of diagnosis in Saudi Arabia. Objective: The aim of study is to determine the demographics of patients admitted with a diagnosis of leprosy and to assess and compare presenting signs between its types in Saudi Arabia. Method: This is a descriptive retrospective study. All study subjects were leprosy patients admitted to IbnSina hospital, from January 2000 to May 2012. Result: We had a total of 164 subjects. The male-to-female ratio was 2.8:1. Patients from the Western region formed 77% of all admitted patients. Lepromatous leprosy had the highest number of infected subjects (33%). There was a positive close contact history of leprosy in 31% of cases. Clinical presentation at the time of diagnosis showed 84 % of all our subjects presented with skin manifestation. Neurological deficit at the time of diagnosis was 87 %. Erythema nodosum lepromatous (E.N.L) developed in only 10 % of all our subjects. Discussion: Assiri et al. found a total of 242 infected residents of Saudi Arabia nationwide in a ten-year period (2003-2012). In our study, we focused more on leprosy patients admitted to Ibn Sina Hospital. A total of 164 patients were accounted for in a 12-year period. Assiri et. al reported that the majority of their cases were PB (50.8%). In our study, PB accounted for 43%, most of which were borderline tuberculoid (26%). Conclusion: Further studies need to focus on clinic characteristics pertaining to each type of leprosy in the region. Training courses should be organized for health workers involved in caring for and diagnosing patients with leprosy.
Prevalence of Depressive Symptoms and Factors Associated with it in Type 2 Diabetic Patients

Presenter:
Ali Abdullah AlQallaf

Authors:
Ali AlQallaf, Zainab Almubarak, Zainab AlBiabi

Background: Diabetes mellitus type two is a major health issue in Saudi community, about 30% of the population in Saudi Arabia suffer from DM II, Depression prevalence among type two diabetic patients found to be higher than non-diabetic people, and co-morbid depression with type two diabetes mellitus has associated with increase mortality. Objective: This study aims to measure the prevalence of depression and determine the factors associated with depression in patients with DM II. Method: Study design a cross sectional study, a total of 218 subject participated by using simple random sampling technique, PHQ-9 by WHO used to assess depression and structured questionnaire for collecting the information about sociodemographic data used, lab results were abstracted later from subject’s medical file. Result: Of the total sample (66.5% male) and (33.5% female) the prevalence of depression was 50.9% (39.3% of males) and (73.9% of females) (N=218, 95% confidence Interval [CI]), mean depressive score is 6.02 where depression types was (28.9% mild, 15.6% moderate, 6.4% sever). Female gender and being widowed are strongly associated with depression symptoms in the sample taken(P=0.006, 95% CL, OR 4.2, 6.3), high level of HbA1C found to be high in depressed group(P=0.000 95% CL, OR 7.3). Discussion: On the study, the prevalence of depression was high with almost half of the diabetic patients had some degree of depression without them being aware of it, Insufficient screening for depression in primary health care centres leave large number of depressed indvial whom may benefit from depression treatment, the severity of depression was strongly associated with low diabetic control, the mechanism of which diabetes causes depression is not easy to determine, it is possible that DMII does not causes depression directly but DMII related complication like nephropathy and neuropathy and macr-microvascular complication affecting to some degree patient quality of life. Conclusion: this research found that 50.9% of diabetic patient in AlShifa’a PHC center had some degree of depression, poor diabetic control and female gender and being widowed are the most attributing factors to have depressive symptoms. Further researches are needed to study the influence of early depression treatment in type two diabetic patient in the long term.
Assessment of Surgical Gloves integrity in Selected Dental Practices in Riyadh, Saudi Arabia

Presenter:
Abdullah Mohammed Aldosari

Authors:
Al-Swuailem AS, AlDosari AM, AlHezam AA

Purpose: To determine the integrity of surgical gloves used in selected dental practices in Riyadh, Saudi Arabia. Materials and methods: A total of 627 surgical gloves were conveniently collected from two different governmental oral and maxillofacial surgery clinics and one governmental periodontal surgery clinic. Surgical gloves were tested for presence of perforations using water inflation test. Data were entered and analyzed using SPSS. Two sample t-test was used to assess whether the dental procedure significantly increases the perforation rate in surgical gloves ($\alpha=0.05$). In addition, the effect of differences in dental procedures was carried out using One-way Analysis of Variance. Results: The perforation rate among used surgical gloves was 18.3% (115/627). The most common site for perforation was the index finger (36.4%) followed by the thumb (22.1%) and the palm (13.6%). The perforation rate was significantly higher in invasive procedures (27.8%) as compared to less invasive procedures (7%) ($P<0.05$). Conclusion: Approximately, one out of five gloves were found to be perforated in this study. This higher perforation rate suggest that the clinicians and/or the patients maybe at higher risk of acquiring infection during oral and maxillofacial surgery procedures.
**Relationship between Body Mass Index, Self-esteem and Quality of Life among Adolescent Saudi Female**

**Presenter:**

Amaal Hamdan AL-Anizy

**Authors:**

Amaal Hamdan AL-Anizy, Asma Salfiq AL-Anizy, Amani Mehaimeed ALUnaizi, Mashael Hammad AL-Anazi, Supervised by: Dr. Farida Habib

Introduction & Background: Overweight and obesity are major risk factors for many physiological and psychological disorders such as endocrine, cardiovascular, gastrointestinal, pulmonary, orthopedic, neurologic, dermatologic diseases, and depression. Obesity have become the most global public health concerns especially among children and adolescents. Objective: to examine the relationship between BMI, self-esteem and quality of life among Saudi Adolescent females. Method: A descriptive correlational design was used. A convenience sample of 416 participants was included. An explanation about the purpose and the nature of the study was offered for each participant. Qualified subjects were asked to complete the survey questionnaire and get their weight and height measured. Voluntary participation was assured. The inclusion criteria were Saudi nationality, age range between 14 to 21, and no history of chronic diseases. Three tools were used to collect data: the socio demographic part, Rosenberg’s (1965) Self-Esteem Scale (RSE), and Quality of Life Scale (QOLS). The validity and reliability of the measurements were ensured. Data was collected from public places. Result: The mean age was 19.19+1.92. The mean BMI was 25.04+5.45. The mean total self-esteem score was 29.23+4.29 and the mean total score of the quality of life was 82.83+17.08. Persons correlation showed that there was a significant negative correlation between Body Mass Index (BMI) and total self-esteem score ($r = -0.421$, $p = 0.000$). Also there was a significant negative correlation between BMI and total Quality of life score ($r = -0.325$, $p = 0.000$). There were no statistical relationship between age, self-esteem and quality of life. However there was a significant positive correlation between self-esteem and quality of life ($r = 0.276$, $P = 0.000$). Discussion: Two research hypotheses were tested. The first hypothesis was there will be a statistically significant decrease of the self-esteem as the body mass index increase. The second hypothesis was there will be a statistically significant decrease of the self-esteem as the body mass index increase. The two hypothesis were proved. We filed to reject the nulls. Conclusion: The self-esteem as well as the quality of life decrease with the increase in body mass index among adolescence female.
Prevalence, Severity, and Impacts of Premenstrual Syndrome among Female Medical Students at Taibah University in Saudi Arabia

Presenter:
Nehal Khalaf Alghamdi

Authors:
Nehal K Alghamdi, Afnan Al-Raddadi, Dareen Al-Hendi, Duaa Abduh, Eman Fadil, Emtinaan Al-Bukhari, Maryam Fahmie, Nesreen Muhtaseb

Background: The premenstrual syndrome (PMS) is particularly common in the younger age groups and, therefore represents a significant public health problem in young girls. This study aims to estimate the prevalence of PMS, and determine its severity and impacts among female medical students at Taibah University in Al-Madina Al-Munawarah city, Saudi Arabia. Methods: This is a cross-sectional study, two different questionnaires covering American College of Obstetrics and Gynaecology (ACOG) criteria to diagnose PMS, demographic & reproductive factors, physical activity have been distributed over all 1st and 2nd year medical female students at Taibah University, where 81.2% have returned completed questionnaires. Results: Premenstrual syndrome was prevalent in 56.4% of participating students. No significant differences (p<0.05) have been found between students with PMS and those without PMS regarding effect of premenstrual period on student’s academic & social life (perceived effect on overall academic life, lectures attendance, grades, social activities, and sleep rhythm), however students with PMS perceived effect of premenstrual period on overall academic life more than those with no PMS (40.9% vs. 35.3%). Conclusion: we concluded that although PMS prevalent among medical students at Taibah University in Saudi Arabia, it is not a significant problem.
The Association between Cardiac Hypertrophy, Fibrosis and Inflammation in the Development of Heart Failure

Presenter:
Feras Ghazi Alhazmi

Authors:
Feras Alhazmi, Marc Van Bilsen, Wouter Derks

Introduction & Background: Heart failure (HF) remains a prevalent cause of mortality and morbidity worldwide. In order to fill the demand for new treatment options, an enhanced understanding of the mechanisms leading to HF is crucial. This paper thus analyses the processes underlying the development of HF, focusing on the association between hypertrophy, fibrosis and inflammation. Despite a recent increase in interest in the role of inflammation in HF, it remains a less researched area. Objective: The objective of this research was to analyze whether there is an association between the development of hypertrophy, fibrosis and inflammation after pressure overload in the heart. Method: In order to analyze the relationship between the development of hypertrophy, fibrosis and inflammation after pressure overload in the heart, a systematic literature search using PubMed was conducted, yielding articles from the 1990s until 2013. Based on several selection criteria, a total of 73 articles were examined in this meta-analysis. For each article, general data such as publication year, experimental model and animal species was extracted into a data sheet, as well as specific parameters for inflammation, hypertrophy and fibrosis respectively. A statistical analysis of this data sheet, using tools such as contingency tables, Chi-square/Fisher’s exact test and scatterplots, was then performed.
Impact of an Educational Session about Foot Reflexology on Nursing Students’ Knowledge and Attitude: A Quasi Experimental Study

Presenter:
Bayan Mohamed Al-qarni

Authors:
Bayan Alqarni, Dalal Aldossari, Shatha Alharbi, Supervised by:- Dr.Mona Afifi, Dr Jipi Varghese

Introduction: Reflexology is a part of alternative medicine. Researches done around the world indicate physiological and psychological positive benefits of foot reflexology. There are no courses about foot reflexology in nursing colleges and there are no researches done in Saudi Arabia about awareness of foot reflexology. Aim: The aim of this study is to assess the impact of an educational session about foot reflexology on nursing students’ knowledge and attitude. Method: A quasi-experimental design was used to collect the data from convenience sample of 41 female senior nursing students in king Saud bin Abdul-Aziz university for health science in Riyadh. Two tools were developed to collect the data: knowledge assessment and opinion regarding foot reflexology questionnaire and evaluation sheet for the educational session. The educational session conducted in 40 minutes. Validity and reliability of the questionnaire were ensured. Results: Forty-one students were included (30 level 7 and 11 level 8). Mean age was 21.61 years and majority of students 68.3% did not hear about foot reflexology. There were significant differences regarding all topics included in knowledge assessment tool (p=.000). The mean and standard Deviation of overall knowledge in post-tests result (51.66±2.19) was higher compared to pre-test result (46.88±4.48). Regarding students’ opinion of foot reflexology, the result revealed that 58.5% of students agreed on pre-test that therapeutic touch is an integral part of nursing profession whereas 92.7% agreed on post-test. Furthermore, 63.4% believe in the effect of foot reflexology on pre-test and 85.4% on post-test. Discussion and Conclusion: This study revealed that knowledge level in post-session was high and better than in pre-session. It showed that participants’ attitude toward foot reflexology changed after the session.
Association between Lifestyles and Oral Health Behaviors among Employees of National Guard Health Affairs in Riyadh, Saudi Arabia

Presenter:
Sarah Saad Al-Obaidy

Authors:
Sarah Al-Obaidy, Abeer Al-Mthen, Hanan Al-Ghamdi, Ruba Al-Haudayris, Waad Al-Saadi, Dr. Amritha Geevarghese

Introduction: Only very limited number of published literature provides data on the prevalence of lifestyle in Saudi Arabia, however, none was found to relate lifestyle to oral health. Objectives: The aim of this study was to determine the various lifestyle factors that affect dental health behaviors among National Guard employees at King Abdulaziz Medical City, National Guard Health Affairs (NGHA). Methodology: The design of the study was cross-sectional, targeting employees of king Abdulaziz Medical City in Riyadh. Participants were invited to complete questionnaires consisted 23 questions distributed into three parts; socio-demographics, life styles and oral health behavior questions. Life style questions were categorizing patients into having poor, moderate or good lifestyles. The total number of participants was 279 employees, with 151 females and two-thirds were less than 36 years in age. Associations between variables was conducted using chi square tests. Results: Assessing the association of lifestyles with socioeconomic, Body Mass Index, marital status, educational degree, systemic diseases and mental health using multivariate analysis reveals no significant associations. However, oral health behaviors (brushing, dental visits and using extra cleaning devices were positively associated with better lifestyle status. Life styles and oral health were found to better among women, non-Saudi and those below the age of 36 years. Discussion: We observed that the lifestyle was statistically significant with the three dental behaviors (tooth brushing frequently, using of extra cleaning devises, and regular dental visits). Most of our participants fall within the moderate lifestyle. Conclusion: Since a positive relationship was found relating lifestyle with oral health, improving the lifestyle could have an impact on improving oral health. More campaigns are needed to target both increase the awareness oral health and improve the lifestyle.
The Prevalence of Type 2 Diabetes Mellitus among Infertile Saudi Women with Polycystic Ovaries: A Retrospective Observational Study in a Saudi Tertiary Hospital.

Presenter:

Hala Abdulrahman Alnuaim

Authors:

Hala Alnuaim, Dr. Samar Hassan, Dr. Dunia Jawdat, Nora Alsabty

Background: Polycystic ovaries (PCO) are ultrasound-detectable morphological disorder seen in approximately 22% of the female population worldwide. PCO is a feature of a larger heterogeneous complex disorder known as polycystic ovarian syndrome (PCOS). Eighty percent of females with PCO morphology experience symptoms of PCOS. PCOS is a recognized risk factor for developing T2DM and infertility. Objective: The aim of this study was to estimate the prevalence of T2DM among infertile female patients with confirmed PCO seeking infertility therapy at King Abdulaziz Medical City. Method: This is a retrospective cross-sectional study. We retrospectively studied 241 Saudi women displaying confirmed polycystic morphology regardless of whether they display the full spectrum of PCOS symptoms or not in the period between 2003 and 2014. Result: Out of the studied 241 patients, 18 women were found to have T2DM resulting in the prevalence of 7.74% (p-value < 0.001). The mean age of the sample was 33 ±0.24 years; the mean body mass index (BMI) was 43 ±11.5. Upon identification of the risk factors that may be associated with the increased risk for developing T2DM among those women with PCO, age was the only significant predictor of T2DM (p-value= 0.03). Discussion: Previous studies reported increased prevalence of T2DM among women with the completed set of PCOS criteria. We found no reported prevalence of T2DM among women with PCO whether or not the criteria of PCOS are exhibited. Moreover, a significant difference was found between the diabetic and non-diabetic groups at a cutoff of age 36 years (p-value 0.005). This is clinically significant because of the known reproductive and metabolic morbidities associated with untreated disease, and screening for T2DM among aging women and especially those known to have PCO is advisable. Conclusion: Saudi women with confirmed PCO women have significantly increased prevalence rates of T2DM. Prevalence of T2DM among our subjects was substantially higher for older patients.
The Impact of the Electronic Referral System on Patient Safety and Quality of Healthcare in Saudi Arabia

Presenter:
Safar Saker Almutairi

Authors:
Safar Saker Almutairi, Dr. Basema Saddik

Introduction & Background: The Electronic referral system facilitates the transfer of patient information, medical documentation and recommendations for health between primary medical systems and tertiary care. The Ministry of Health (MOH) in Saudi Arabia implemented EHALA, an Electronic Referral System (ERS) in 2013. However, despite the reported benefits of electronic referral systems, no study has yet evaluated the effectiveness of Ehalala and whether or not it is fulfilling its objectives for implementation. This study hypothesizes that the electronic referral system has the ability to improve patient safety and quality of healthcare in Saudi Arabia. Objective: To explore the impact of the electronic referral system on the patient safety and quality of healthcare in MOH hospitals and PHC facilities in Saudi Arabia. This study will also investigate user’s attitudes toward the electronic referral system in terms of system access, time frame of response to referral order, patient safety, communication between hospitals and PHC, and referral workflow efficiency. Method: Methods: This cross-sectional study collected data through a self-administered and online questionnaire. A total of 380 questionnaires were collected from electronic referral system users. The survey questions were developed based on the variables that were known to interact with the electronic referral systems in terms of system access, patient safety, communication effectiveness between hospitals and PHC, referral timing and referral workflow efficiency. Result: The majority of participants (68.8%) agreed that the ERS has enhanced patient safety, provides consistent communication, and has standardized the quality of healthcare. 18.5% had neutral opinion and 12.8% had negative attitudes towards the system. Level of education, job title, the organization in which the participants worked and level of experience with the ERS were found to be associated with the participants perceptions of specific domains of the ERS including access and content, communication, timing, patient safety and efficiency workflow. Discussion and Conclusion: The findings of this study indicate that the implementation of the electronic referral system has impacted positively on patient safety and quality of healthcare. Specifically, the system has facilitated referral workflow and communication between healthcare providers.
Introduction: Parent’s satisfaction is one of the major important factors for assessing and evaluating the quality of care in the pediatric practice. It reflects the attitude and relationship between the parents and the medical staff. Aim & Objectives: The research was aiming to assess parent’s satisfaction about the quality of health care provided to their children at King Abdul-Aziz medical city (KAMC) in Riyadh, Saudi Arabia. Methods: Parents who were available in the pediatric departments* with their children during the month of November 2014, were asked to fill out the questionnaire. They were given a time of 8 to 15 minutes to fill it up. The questionnaire had 19 questions divided into three sections, consisting of nursing, doctors’ and overall assessment of the pediatric department. Results: Out of 130 parents, the response was 90.8 %. Majority of them were highly satisfied with the quality of care, regardless of their demographic Variations. There was no major difference in the rate of satisfaction between the settings, with no impact of the level of education or the age of parents on the scale of satisfaction. The mean satisfaction for nursing attitude and practice achieved 88%, for doctors and their way of communication was 92 % and the overall was 76 % Discussion: “Patient satisfaction is an attribute of quality per se “ (1). Quality of care considered one of the important elements that people usually are looking for, specifically for children as they need more of care than others. It has many elements to be evaluated through; one of them is the satisfaction of patients. The response rate was very good compared to the least accepted response which is 50 %, that stated by babbie 1990. The Good relationship between the medical staff (doctors, nurses and others), and parents led to this higher level of satisfaction. Conclusion / Recommendations: Parents tend to look moreover for the best care for their children. So, the quality of health care has become an important part of medical practice. Mainly in the pediatric practice, Attention to the parent’s concerns has a positive impact on the medical care.
Prevalence of Thyroid diseases in adult Saudi females visiting King Khalid University Hospitals in Riyadh

Presenter:

Jumana abbas mirah

Authors:

Sumbul Fatma*, Jumana Mirah, Nada al-Shahrani, Nouf Alfulayyih, Basma Ogailan, Afrah Almituri and Rana W Hasanato*

Introduction: Diseases of the thyroid gland are common in adults and ethnicity and geographical locations do affect the prevalence of thyroid disorders. Objectives: So, the objective of our study is to study the prevalence of thyroid dysfunction in adult Saudi female subjects. Methodology: Ours is a quantitative, observational cross sectional study. We recruited 199 adult Saudi female subjects visiting the King Khalid University Hospitals, Riyadh by random sampling. Patients were given an informed consent form after which we did an interviewing questionnaire to get information about their medical and social history. Also we measured their blood pressure, height and weight. Afterwards venous blood were collected from each subject and processed to measure the thyroid function (free T3, free T4 and TSH, PTH) and bone profile (calcium, phosphorus and vitamin D). Results: The mean age of the total 199 females participating in the study was 29 (±12.2) yrs. More than 50% of the females were either overweight or obese with a BMI more than 25. Amongst the participants, 17% of the females had been previously diagnosed with thyroid diseases with 10% as hypothyroid and 3% with hyperthyroidism, the remaining 4% had other thyroid diseases. We found 5.5% females with undiagnosed hypothyroidism in our studied population. So, the prevalence of hypothyroidism was 15.5%. In our studied population we did not find any new cases with hyperthyroidism. Conclusion: Thyroid disorders are significantly prevalent in Saudi female population and mainly affect the older females and most of the patients have a family history of thyroid disorders.
Assessment of medical Students educational environment in multiple KSAU-HS campuses.

Presenter:
Abdullah Nawash Alanazi

Authors:
Dr.Fadi Munshi, Abdullah Nawash Alanazi

Introduction: The learning environment has a great impact on the student’s educational experience. Learning environment according to Biggs 3P model of the learning process is defined as situational and personal factors that can directly influence the learning outcome. The aim of the study is to compare students perceptions of learning environments at multiple King Saud bin Abdul-Aziz University for Health Sciences (KSAU-HS) campuses in Riyadh. Methods: This is a cross sectional quantitative study in which the Dundee Ready Education Environment Measure (DREEM) questionnaire is posted online using SoGoSurvey.com. The sample size is all batch 9,10 and 11 medical students of King Fahad Medical City (KFMC) campus, KSAU-HS male campus, and KSAU-HS female campus, collectively are 483 students, descriptive analysis and ANOVA testing is performed on the data. Results: Response rate of the questionnaire is 36%. The mean score is 130/200 (SD 18.4). ANOVA of the questionnaire mean scores failed to show any significant variation, nevertheless the analysis of the questionnaire mean scores among the different batches showed significant (p=.02) variation favoring younger batches. Discussion: A similar study was conducted in KFMC in the year 2009/2010 faculty of medicine in the context of a new medical school reported lower scores (111.5/200) in contrast to the current score reported in our study, in addition, another study was conducted again in KFMC in the context of applying PBL approach and reported similar result to its former study (119/200), It’s worth mentioning that these studies were conducted before faculty of medicine joined KSAU-HS. Conclusion: The overall mean scores are positive and similar with no major discrepancies, however the scale favors KFMC campuses as a more positive learning environment in contrast to KAMC campuses. Furthermore the mean score for KFMC campus is more positive than previous studies conducted in the same campus.
Central line associated blood stream infection in a pediatric cardiac intensive care unit: Incidence, risk factors and outcome

Presenter:
Meshal Raffa Alotaibi

Authors:
Waleed Alsarhani, Meshal Alotaibi, Zeyad Alamari, Saad Albogami, Mohammad Alshaalan, Mahmoud Elbarbary

Introduction & Background: Central Line Associated Blood Stream Infection (CLABSI) is a serious infection associated with 28,000 deaths and expenses from $296 million to $2.3 billion yearly. There is scarcity of data on CLABSI in pediatric cardiac intensive care units (PCICU). Objective: The aim of the study is to describe the risk factors, causative organisms and outcome of CLABSI in a PCICU. Method: The study was retrospective cohort in which all charts of patients admitted to the PCICU from January 2012 to April 2012 were reviewed. Patients who had central line were followed to see if they develop CLABSI form the central line insertion date until 2 days after removal. Result: A total of 126 patients was included in the study. There were 18 events of CLABSI during 1069 central line days (16.84 CLABSIs per 1000 central line days). The most common causative organisms were Klebsiella pneumonia, Staphylococcus aureus and Coagulase negative staphylococcus accounting for 3 cases (16.6%) each. The mean length of stay for patients with CLABSI was 26.2 days compared to 7.7 for those without CLABSI (P<0.0001). The mean duration of central line use for CLABSI patients was 10.4 days and 5.2 days for patients without CLABSI (P<0.0001). Multiple logistic regression analysis showed total parenteral nutrition and emergency admission were independent risk factors. The death rate associated with CLABSI was 17.6% compared with 2% in non CLABSI patients (P=0.018). Conclusion: CLABSI increased the length of ICU stay and mortality, yet it has recognizable associated factors. Infection control measures should be carefully implemented with special attention given to patients with CLABSI risk factors.
Transcriptome Analysis of Doxorubicin Resistance In Cancer Cell Lines: Breast Cancer (MCF7), Osteosarcoma (SaOS-2) and Neuroblastoma (SKN-SH390)

Presenter:
Bshayer Rsheed Alsubaie

Authors:
Dr. Ahmad Aljada, Dr. Mohammad A. Aziz, Bayan Alghuraybi, Bshayer Alsubaie, Fai Alzaedi

Tumor adaptation to biological responses of chemotherapy causes failure of treatment which subsequently leads to tumor relapse. Thus, acquisition of multidrug resistance for several anticancer agents that are structurally and mechanistically unrelated is one of the major obstacles in chemotherapy and is described as “the single most common reason for discontinuation of a drug”. For each anticancer agent, more than one mechanism of resistance have been suggested in available evidence. This study aimed to identify common pathways of resistance among different tumor cell lines toward single anticancer agent, which is Doxorubicin. The resistant Breast cancer (MCF7), Osteosarcoma (SaOS-2) and Neuroblastoma (SKN-SH390) cell lines were developed by stepwise increase of Doxorubicin concentrations over a period of 12 months. The alterations in genes expression obtained from Affymetrix microarrays and were subjected to Ingenuity pathway analysis (IPA). Findings showed distinct alterations at the genetic level in some central cancer pathways like the tumor suppressor pathway PTEN. Some biological functions exhibited molecular shifts as well like downregulation of cell to cell signaling pathway molecules. We conclude that inhibition of PTEN pathway is suggested to be associated with doxorubicin resistance. Thus, pharmacological agents could be used to selectively target PTEN affected genes. Further investigations on the upstream regulator molecules and their target genes could serve as new treatment targets that circumvent doxorubicin resistance.
The Prevalence of Atrial Fibrillation among Adult Saudi Patients with Chronic Heart Failure at Prince Sultan Cardiac Center, Qassim

Presenter:
Marya Abdullah Al Suhaibani

Authors:
Marya Abdullah Al Suhaibani, Amjad Mohammed Al Harbi

Introduction: Atrial fibrillation is the most common sustained cardiac arrhythmia. It represents an important clinical problem with related significant health and social issues. It has a very diverse and often multiple etiologies including chronic heart failure. The prevalence of both heart failure and atrial fibrillation is steadily increasing and the two conditions share common risk factors that demonstrate the significant association and coexistence between them. Objectives: To estimate the prevalence of atrial fibrillation among Saudi adult patients with chronic heart failure in Qassim province, and to identify the clinical and the socio-demographic characteristics of these patients. Methods: A cross sectional study reviewed the medical records of all patients registered in the Heart function Clinic of Prince Sultan Cardiac Center, Qassim and diagnosed with heart failure since its inception from 2010 till the end of 2014. Prevalence of atrial fibrillation was calculated at 2014 and the associated socio-demographic and risk profile were determined. Results: The prevalence of atrial fibrillation among patients with chronic heart failure (n = 68) was 14.7%. Prevalence among male patients (15.4%) was higher than female patients (12.5 %). In both genders, the prevalence rose with advancing age, and in each age stratum it was higher in males than females. The prevalence was high if heart failure associated with chronic diseases, diabetes mellitus was present in (14%) and hypertension was in (18.8%) of the atrial fibrillation patients. Discussion: Because of increasing occurrence of chronic diseases with aging and because of modern life style modification the majority of atrial fibrillation cases in present study are found in elderly and among subgroups with clinical risk factors. Conclusion: Prevalence of atrial fibrillation among Saudi patients with chronic heart failure is high and it is higher among male patients and patients with hypertension and diabetes.
Analysis of Volatile Organic Compounds in the Headspace of Differentiated Progeny of Human Induced Pluripotent Stem Cells

Presenter:
Omar Ibrahim Suliman Al-Haidari

Authors:
Omar Ibrahim Suliman Al-Haidari, Mohammed Al-Zubaidi, Nicholas R Forsyth

Introduction: Extraordinary advances in pluripotent stem cell research have initiated an era of hope for regenerative medicine strategies to treat human disease. Besides embryonic stem cells, an induced pluripotent stem cells (iPSCs) are a type of pluripotent stem cell that can be generated from adult tissue (usually skin or blood) and is genetically modified to behave like a human embryonic stem cell (hESCs). Human iPSCs are able to differentiate into all derivatives of the three primary germ layers. The in vitro microenvironment, in essence, mimics many properties of the natural niche. Analysis of volatile organic compounds in iPSCs culture medium can be used as an approach to study preferred metabolic pathway choices to help further define the in vitro niche model. Objectives: To analyse the VOCs in the headspace of human induced pluripotent stem cells in normoxic (21% O2) and hypoxic (2% O2) conditions. Methods: iPSCs were cultured in Essential 8 medium and Vitronectin-Coated Tissue culture plate in both normoxic and hypoxic conditions. After that, cells were added into experimental bottles, sealed, and incubated for 16 hours. Finally, the headspace contents of the bottles were analyzed by SIFT-MS, which can measure compounds down to concentration of part-per-billion by volume. Results: The analysis of VOCs showed a significant decrease in the concentration of acetaldehyde, DMS/ethanthiol, pentene and terpenes in the headspace of iPSCs- free supernatants of normoxic condition as compared to supernatant of hypoxic condition. Conclusion: In this work, the change in the concentration of VOCs in the headspace of iPSCs when cultured in different oxygen tension appear to reflect the change in metabolic and functional state of iPSCs and may help expand our current understanding of stem cell biology.
Background: Developmental dysplasia of the hip (DDH) is a spectrum of disorders ranging from subluxation to complete dislocation of the hip joint. There are limited number of recent studies describing the characteristics of patients with DDH in Saudi Arabia. Objective: To describe the characteristics of DDH patients and which types of treatment methods they have undergone.

Method: The present retrospective study comprised data exploring some related factors of DDH in King Abdulaziz Medical City in Riyadh (KAMC) from 2004 to 2014. Primary data of children referred to the orthopedic outpatient clinic with DDH were analyzed.

Result: A total of 176 DDH diagnosed patients were studied; 151 of which were female (85.8%). There were 82 patients diagnosed with bilateral DDH (46.6%), 50 patients with right DDH (28.4%) and 44 with left DDH (25%). The ages of diagnosis were included with 88.8% of the sample diagnosed after three months. Pelvic osteotomy was the intervention in 50.0% of the cases. There was significant difference in the type of intervention with laterality (p= 0.016), age of diagnosis (p<0.001) and place of delivery (p= 0.015).

Conclusion: The awareness of DDH should be increased among pediatricians and family medicine physicians to decrease the incidence of late DDH. Furthermore, a structured screening program has to be created and implemented in all hospitals to detect DDH earlier and to provide treatment as early as possible.
Nature and Prevalence of Occupational Hazards and Musculoskeletal Disorders among Dental Students and Practitioners in Riyadh City

Presenter:
Zainah Mohammad Alshehri

Authors:
Dr Zainah Alshehri, Dr Mustafa Al-Zoughool, Dr Amen Bawazir, Dr Hoda Jradi

Background: Occupational hazards are common in dentistry. One of the main occupational risks affecting dental professional is musculoskeletal disorders (MSD). This study was conducted to assess occupational hazards and their health effects’ prevalence among dental students and practitioners in Riyadh City. Methods: Descriptive cross-sectional study was conducted using a self-administered questionnaire about the nature and prevalence of occupational hazards and musculoskeletal disorders. The questionnaire was completed by 515 dental students and dentists (274 male, 241 female) from the dental colleges, private and government dental clinics in Riyadh city. The following features were explored: occupational risk at the workplace, past exposure history, safety training and risk mitigation practices, and the prevalence MSD. Chi-square and logistic regression were used to determine independence and risk of MSD, respectively (statistical significance was set at $p<0.05$). Results: The level of infection hazard was similar in the different types of clinics; most of the high infection risk (62%) was reported in dental schools compared to (14%) and (24%) in private and government clinics, respectively ($P=0.64$). The majority (66%) of dentists reporting high level of infection risk was among those with 5 or fewer years of experience, and the percent of those reporting high infection decreases with increased years of practice ($P=0.37$). Lower back (64%) and neck (60%) were the most prevalent MSD conditions. Logistic regression analyses showed increased risk of MSD with more work hours (OR=1.13), and with treating more than 10 patients a day (OR=1.32).

Conclusion: Most of the study subjects were aware of biological risks, and had good knowledge regarding occupational hazards. The prevalence of MSD among dental students and dentists is high. A correlation between neck and back pain and different types of clinics was recognized in this study. Education and training programmes have to be conducted to prevent these hazards.
Background Hand is the commonest site for fractures than other sites in the body, as it represents 17-25% of all body fractures. Metacarpal bone of the small finger is the commonest bone that gets fractured in the hand. Objectives to determine the epidemiology and frequency of various fractures of the hand and distal forearm amongst adults. To identify patients who required surgical treatment. Methods It is a retrospective chart review of all hand X-rays done among adult patients who presented to emergency room in King Abdul-Aziz Medical City from January 2010 to December 2011 to rule out hand fractures. In this review we will assess the prevalence of X-rays confirmed fractures. Results In this study, we reviewed 2993 X-rays for hand and distal forearm. One third of these X-rays came with confirmed fractures (n=948), and more than two thirds of these fractures were in male patients (n=702). There was no major difference in the distribution of fractures between left and right hand. Patients in young age group (18-30 years) got the half of these fractures (n=472). The study showed that phalanges got the highest proportion of fractures (n=362, 40%). Distal forearm fractures represented one third of these fracture as the second most common (n=287). Almost half of the metacarpal fractures were in the fifth metacarpal (n=104), and this make it as the commonest fractured bone in the hand. One fifth of the fractures were managed surgically (n=190, 20%). Conclusion One third of the X-rays we reviewed have shown confirmed fractures. Both hands were affected equally. Patients in young age group are more prone to have fractures, and phalanges got highest proportion of the fractures followed by distal forearm.
Introduction & Background: Stress and anxiety before and during exams represent major problems for students. But use of self-medication to alleviate anxiety is increasing among medical students. Objective: to determine the knowledge and attitude of the medical students in KSA about beta blockers and self-medication in general. Identify the type of beta blockers which are commonly used. also, the benefits and risks of using beta blockers among medical students. Method: A cross-sectional study was conducted at College of Medicine Taibah University, Saudi Arabia. The study recruited 450 medical students of all years. The data were collected through a self-administered structured questionnaire which consisted of demographic data and data about students’ attitude and use of BB before and during exams. The collected data were analyzed using appropriate statistical methods. The level of statistical significance was defined as P ≤ 0.05. Result: The mean age of the studied 450 students was 21.8 ± 1.7 years, 41.3% of them were males and 58.7% were females. The use of BB among the studied students was 9.3%, with significant difference by students’ sex and study year. The higher percent of BB use was found among female (14.7%) and clinical year (17.5%) students. About two thirds of the users (28 students) reported that they use BB according to their friends’ advice, while 24% (10 students) used BB according to medical prescription. Discussion: Most of the students start to take BB during the clinical years, and more than 75% of them were using it without medical prescription. The highest proportion of BB use was observed during internal medicine, pediatrics and surgery exams. Conclusion: The study revealed relatively low level of use of BB among the studied students compared to the use of other OTC medicine among students reported in other studies. However, the inappropriate practices of BB as self medication among these students was alarming both the Saudi Health authorities and for the studied faculty administrators.
Validity of a Handheld Electrophysiological Tool in Diabetic Retinopathy Screening Compared to Digital Fundus Photography

Presenter:
Humoud Mohammad B. Alotaibi

Authors:
Humoud M Alotaibi, Mohammed D Alotaibi, Ches Souru, Rajiv Khandekar, Donald U Stone, Igor Kozak,

Introduction & Purpose: To study the validity and time required to detect diabetic retinopathy (DR) and sight threatening diabetic retinopathy (STDR) by using a hand-held electro-physiological tool compared to digital fundus photography. Method: Diabetic patients attending eye screening unit of King Khaled Eye Specialist Hospital were evaluated by electrophysiological test using ‘RETeval’ and by digital fundus photography. The time required for testing was noted. Fundus images were evaluated by a retina specialist to determine grade of DR. The sensitivity and specificity of STDR and DR screening by ‘RETeval’ compared to photography were calculated. Results and discussion: We screened 269 diabetic patients. The prevalence of STDR and DR was 35.4% and 57.5% respectively. The mean electro-physiological score obtained using ‘RETeval’ was 25.2±4.9 ms. The AUC in persons with STDR was 76.7% and in person with DR of any stage, it was 56%. Based on the criteria defined by the manufacturer, 25 (14.3%) patients passed the ‘RETeval’ test and 233 (85.7%) patients failed the test. The sensitivity and specificity of ‘RETeval’ test to detect STDR in either eye was 96.8% & 20.4% respectively. The sensitivity and specificity of ‘RETeval’ test to detect DR was 62.4% & 77.7%. The mean time for performing ‘RETeval’ was 5.7 ± 2.3 minutes. The median time for digital fundus photography was 15.3 minutes (25% quartile 10). In 48 (17.8%) patients who could not be assessed by digital fundus photography due to media opacities, one could undertake DR screening with ‘RETeval’. Compared to conventional methods we found that these tools were set to have high sensitively for disease detection which is very appropriate as screening methods. Conclusions: ‘RETeval’ is a rapid screening device with excellent sensitivity for detecting STDR, and has potential as a 1st level screening tool to detect patients that require further evaluation.
Prevalence of Sleep Disorders among Healthcare Providers in KAMC/KFNGH

Presenter:
Rayan Saad Aldusari

Authors:
Dr. Rayan Aldusari, Dr. Suhaib Abusulaiman, Dr. Abeer Alharbi

Background: sleep disturbance occur in 10%-15% of the general population. This study aimed to determine the prevalence of sleep disorders among health care providers in KAMC/KFNGH, and to assess the factors effecting sleep among healthcare providers. Methods: Cross-sectional survey study that utilized a questionnaire to assess sleeping habits, factors that effect sleep, specific sleep disorders. A sample of medical health care providers was selected according to their convenience accessibility. Results: there were 154 respondents comprising 41 males and 112 females. Sleep disorders are common among healthcare providers (52.5%); more over sleep disorders are more prevalent in female employees compared to males (73.2% vs 28.3%). Employees rotating between day and night shifts had greater difficulties (69.6%) than daytime workers (29.1%). Discussion: nurses reported more sleeping problems (59.8%) compared to doctors (45.7%), and that might be caused by alternating day and night shifts, or longer shifts compared to doctors. There was no association between sleep disturbance and smoking, drinking caffeinated beverages, or using medications. On the other hand, the majority of patients who reported feeling anxious (75%) or depressed during the day (78.9%) had a significant association with sleep disturbance (P=0.002) and (P=0.013) respectively, sleep disturbance might be the cause of feeling anxious or depressed and it might be a consequence of it. Conclusion: Sleep disorders are common among healthcare providers, and it’s higher when it’s compared to normal population. Irregular work schedules often result in disruption of normal circadian rhythm, which effect performance. The problem is not yet recognized; a wider multicenter study is needed to determine the prevalence of sleep disorders among healthcare providers accurately.
Cohort Study on Comparing the Risk of Mortality between Pediatric Down Syndrome Patients with and without Cardiac Anomalies in a Tertiary Healthcare Center

Presenter:
Qais Saad Alrashidi

Authors:
Dr. Mohamad Kabbani, Abdullah Anazi, Qais Alrashidi

Introduction & Background: Down syndrome (DS) is a set of cognitive and physical symptoms that result from having an extra chromosome 21 or an extra piece of that chromosome. The DS incidence in Saudi Arabia of 1 in 554 live births. Objective: To assess the different health outcomes of pediatric DS patients with cardiac anomalies, and to identify potential predictors of mortality in DS patient’s with cardiac anomaly. Method: All cases of DS patients from 0-15 years old were collected retrospectively (1999-2014) from KAMC heart center. Data about congenital heart disease, surgical cardiac repair and the hospital, Intensive care unit (ICU) frequency of admission and other co-morbidities were obtained using data collection sheet. Result: 257 DS patient were analyzed. 220 are alive (85.6%), 214 had cardiac anomaly (83.3%) of which 64.8% were repaired, the most common anomaly in our sample was AVSD (38.8%), Kaplan Meier curve showed the survival of patients who had surgical repair improved significantly in comparison to patients who did not undergo surgical repair. Our identified mortality predictors were analyzed using a stepwise multivariate cox regression which showed that multiple ICU admissions (HR=11.6, p=0.001), Pulmonary hypertension (HR=3.0, p=0.01), recurrent infections (HR=2.6, p=0.02) and unrepaired cardiac anomaly (HR=9.9, p<0.0001) were the variables independently associated with hazard of death. Discussion: In other study, children with DS who underwent repair of congenital heart disease were more likely to survive to discharge than children without DS regardless of underlying factors and morbidities, however our predictors of survival made this discrepancy understandable. Conclusion: The repair of cardiac lesion showed better survival in comparison to the unrepaired lesions. The increased risk of mortality is mainly due to cardiac lesion presence, respiratory infections and ICU admissions.
Depression, anxiety, and stress among Saudi dermatological patients in central region of Saudi Arabia: a cross-sectional study

Presenter:
Qamra thawab alboqami

Authors:
Anwar E. Ahmed, MSc, PhD, Abdulaziz M. Aldahmash, Yazeed F. Altebainawi

Introduction & Background: Little is known about Saudi dermatological patients regarding the prevalence of depression, anxiety, and stress and their associations with socio-demographic characteristics. Objective: The purpose of this study was to assess psychological symptoms in a sample of Saudi dermatological patients, specifically investigating the associations between socio-demographic characteristics and psychological symptoms in this population. Method: A cross-sectional study was conducted at King Abdulaziz Medical City-Riyadh (KAMC-R) on 254 Saudi patients with a response rate of 85%. The study was carried out between 11 to 31 August of 2015. The Arabic version of the Depression, Anxiety, and Stress Scale (DASS) was used to screen for symptoms of depression, anxiety, and stress in the study population. Socio-demographic characteristics were obtained from each patient. Result: Of the 254 dermatological Saudi patients surveyed in this study, the prevalence of depression, anxiety, and stress in our samples was 12.6%, 22%, and 7.5%, respectively. The presence of at least one of the three psychological symptoms (psychological outcome) was found in 24.4% with 95% confidence intervals of 19.3% to 30.2%. According to our study, depression was significantly higher in Saudi dermatological patients who lacked family support than those with family support (26.5% vs. 10.7%, P=0.006). Poor quality of life was found to be associated with stress (9.5% vs. 0.0%, P=0.016). According to the multivariate logistic regression model, poor quality of life was found to be a significant predictor of psychological outcome. Discussion: Our findings did not differ from the prevalence found in a multi-center study that was conducted in 13 European countries. According to the authors the depression was present in 10.1% and anxiety was 17.2% of the patients. Conclusion: It was estimated that approximately two out of 10 Saudi dermatological patients suffer from at least one psychological symptom. The primary reasons for the worsening psychological symptoms were lack of family support and poor quality of life. Intervventional study is needed to examine the effects of social and family support on psychological symptoms among Saudi dermatological patients.
Low frequency of ETV6-RUNX1 fusion oncogene and its Strong Association with Day-14 Remission in Saudi Arabian Pediatric Acute Lymphoblastic Leukemia Patients Shows Ethnic Differences in Genetics and Disease Biology of Leukemia

Presenter:
Mohammed farhan alanzi

Authors:
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Introduction & Background: Leukemia is the cancer of blood which originates in bone marrow. Pediatric Acute Lymphoblastic Leukemia (pALL) is the most common type of Leukemia. Objective: We designed this study to find out frequency of ETV6-RUNX1 in pALL and its Association with laboratory parameters and treatment outcome. Method: Fifty-four pALL patients attending King Abdulaziz Medical City Riyadh (2006-2011). Were included in the study. Laboratory parameters, treatment outcome and ETV6-RUNX1 status (Using interphase-FISH) were studied. Data was analyzed using SAS version 9.2 (SAS Institute, Inc., Cary, NC). Result: Male to female ratio was 1.57:1 (33:21). Frequency of B- and T-cell ALL was 87% (47/54) and 13%(7/54) Day 14 as compared to 9% ETV6-RUNX1-negative patients with no remission (5% or more blasts) at Day 14. Discussion: Under-representation of ETV6-RUNX1 in Saudi pALL patients as compared to European countries, North America, Australia and Japan (25-33%) shows ethnic differences in genetics and disease biology of pALL worldwide. Conclusion: Our findings are in accordance With studies from Pakistan (10%), Egypt (11.6%) and India (5-7%) Careful analysis shows higher frequencies of ETV6-RUNX1 in more industrialized countries like Europe, US, Japan and Australia, probably due to more industrial pollutants or westernized lifestyle as compared to South-east Asia and Middle East. Study has very important implications in future cancer Management strategies in the kingdom.
Exploring Depression, Stress, Anxiety and Sleep Problems among Saudi Pregnant Women in Riyadh.

Presenter:
Asmaa Awadh Alenazi

Authors:
Qamra Alboqami, Rawan Alenazi, Asmaa Alenazi, Aseel Alayed, Supervised by: Dr. Farida Habib

Introduction: Psychiatric disorders during pregnancy are impressively common and can have devastating consequences for the woman, her children, and other family members. The emotional care is possibly the most neglected aspect of obstetric medicine. Pregnant women. Objectives: The objective of the current study was to assess the depression, anxiety and stress among Saudi pregnant women in Riyadh. Methods: A cross-sectional study design was used. Convenience sample of 372 pregnant women were included. The Arabic version of the Depression, Anxiety, and Stress Scale (DASS-21) and Arabic version of General Sleep Disturbance Scale (GSDS) were used. Validity and reliability of the 2 scales were ensured. Data was collected from outpatient Obstetrics and Gynecology clinics at King Abdulaziz Medical City and Al Yamama Hospital. Consent was taken after the purpose of the study was explained to each subject. Data was coded for entry and analysis using SPSS statistical software package version 22. Results: A total of 372 pregnant women participated in this survey. The mean age of the sample was 29.4 ± 5.4. About half of the sample (50.5%) had Bachelor degree. The women with severe depression were 18.4%. Women who had anxiety, and stress in the sample were 34.2%, 8.6% respectively. Also, 47.2% of pregnant women had good sleep, while 50.9% had mild disturbed sleep and only 1.9% of the women in the sample had severe disturbed sleep. There was a statistical significant relationship between Depression, Anxiety, and Stress Scale (DAS) total score and total score of General Sleep Disturbance Scale (GSDS) (p = 0.000, r = 0.558), Discussion and conclusion: Depression, stress, anxiety and Sleep problems are more common among pregnant women. Therefore it may be desirable to establish psychological and psychiatric services in obstetric clinics, which would facilitate the treatment and follow-up in order to reduce the psychological problems of pregnant women.
Introduction & Background: Autologous stem cell transplantation (ASCT) is an effective treatment in patients with high-risk tumors. ASCT have been used for decades because stem cells offer the possibility of a renewable source for replacement cells and tissues to treat. However, only limited data have been published about the outcomes from Saudi Arabia. Therefore, this study was conducted to analyze new experience in KAMC.

Objective: This study is designed to identify the outcomes of ASCT in KAMC-Riyadh.

Method: A retrospective cohort study of a prospectively collected database was supplemented by chart review of all children under the age of 14 years who were admitted to oncology center from establishment of the program (2010) to January 2015 for ASCT.

Result: A total of 47 ASCT were performed in 33 patients. The median age at ASCT was 2.9 years (range, 1.1-12.8 years). Twenty-five patients (75.8%) had undergone a single ASCT. Out of 47 transplants, 29 transplants for 15 patients with brain tumor (61.7%), 13 transplants for those who had neuroblastoma (27.7%), 2 patients had lymphoma (4.3%), 2 had relapse Wilms tumor, and 1 had Ewing’s sarcoma. All patients were identified as having advanced stages and all of them had successful engraftment of neutrophils and platelets. None of them had transplant-related mortality, but deaths were due to tumor progression or recurrence. The probability of OS at 1 and 5 years was 95% and 50%, respectively. Five-year EFS was 45%.

Discussion & Conclusion: Using the ASCT in pediatrics with malignant diseases induces successful overall survival rate. High dose chemotherapy with ASCT was well tolerated with no significant complications. Available evidence indicates that treating with ASCT may improve survival rates in patients with high risk of disease recurrence. Despite these findings, further multi-institutional collaborative studies are recommended to get more helpful information upon our population outcome.
Awareness of Colorectal Cancer among Inflammatory Bowel Disease Patients at King Khalid University Hospital from 2013-2014

Presenter:
Hadeel Sultan Al-Subaie

Authors:
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Introduction & Background: Colorectal cancer (CRC) is documented to be the second most common cancer in Saudi Arabia. Inflammatory bowel disease (IBD) patients are at higher risk for developing CRC as compared to the general population, it is also found to be the most common cancer among them. Objective: To assess the awareness of CRC signs, symptoms and risk factors among IBD patients attending KKUH and to determine the factors associated with good knowledge of CRC. Method: A quantitative, observational, cross-sectional designed study was conducted at KKUH, Riyadh from 2013-2014 using telephone-interview administered questionnaires to the selected patients. A sample of 384 was calculated. Patients’ confidentiality was maintained. Result: Prompted awareness of CRC symptoms and risk factors was much higher than unprompted awareness. Regarding risk factors, nearly 48% of patients could not recall any risk factors without aided. The most commonly identified unaided risk factor was IBD (27.1%). Out of all patients, aid was needed by over half of the patients (58.4%) to recognize IBD as a risk factor. Discussion: Large proportion of patients had poor awareness regarding symptoms and risk factors of CRC. Prompted awareness of symptoms and risk factors was higher than unprompted awareness. Also patients were more aware of symptoms than risk factors. When comparing the proportion of Saudi IBD patients who could recognize their own disease (IBD) as a risk factor for CRC after being aided to the general British population, it is striking to say that the Saudi IBD patients’ awareness to IBD is less than the general public. Conclusion: The overall awareness of CRC symptoms and risk factors among Saudi IBD patients was poor. However, the knowledge towards CRC symptoms was observed higher than knowledge of risk factors. Customization of health-promotion programs for IBD patients is urgently needed to raise the awareness about CRC.
Central Obesity among Adult Saudi Males in Riyadh City: Prevalence, Risk Factors and Associated Morbidity

Presenter:
Hassan Ali Alassiry

Authors:
Hassan Alassiry, Emad Alotibi, Nawaf Alamri, Dr.Mohammed Alsheef, Dr.Emad Masuadi, Amar Halwani

Introduction: An increase in the prevalence of obesity has been reported among Saudi population. However, data on prevalence and risk factors of central obesity are deficient. Objective: To determine among adult Saudi males: The prevalence of central obesity and obesity, risk factors and associated morbidity. Methods: A cross-sectional study covered seven health care sectors in Riyadh city conducted from May to August 2015, it included a multistage stratified random sample of 7 primary health care centers and 269 subject aged over 18. A questionnaire describing the demographic information, Tobacco use, dietary habit, physical activity, history of hypertension and diabetes mellitus, physical measurement and family history. The subjects were measured by weight, height, waist circumference (WC), hip circumference (HC). Abdominal obesity was defined as waist height ratio (WHtR) 0.5+, waist hip ratio (WHR) 0.90+ and WC 102+ cm., and total obesity as BMI≥30 according to the World Health Organization criteria. Body mass index (BMI) was calculated for each subject (BMI=weight [Kg]/height [m2]). Results: The prevalence of central obesity among adults was 42.4%, 81% and 82.2% based on the WC, WHR and WHtR indicators respectively. 37.9% of the participants were overweight and 32.7% obese. Diabetes mellitus was found among 36.1% of the overall sample, while hypertension was 26%. Coronary heart disease was found among 8.2% of the sample. Inferential statistics to predict risk factors of central obesity and obesity are in process. Discussion: The expected results of our study were a high prevalence of central obesity among Saudi adult in Riyadh city in addition to many statistically significant positive predictors of central obesity and total obesity. Conclusion: Health education programs should be adopted to increase the awareness about the risk of central obesity, and encourage a healthful diet and active lifestyle. Preventive strategies should be implemented accordingly.
The Prevalence of Skin Conditions among Male Students of Primary and Intermediate School in Hail, Saudi Arabia

Presenter:
Meshari Yousef Aljamani

Authors:
Aljamani, Meshari ; Altamimi, Naif ; Alshammari, Mutlaq ; Alrashdi, Abdullah ; Alsaadi. Shaker

Introduction & Background: There is no information about skin diseases among school children in the northern region of Saudi Arabia. However, skin diseases were reported in other regions with different variation from area to another because of environmental, socioeconomic and ethnical factors. Objective: The purpose of this study was to evaluate the prevalence of dermatological disease among schoolboys of Hail region, Saudi Arabia. Method: This was a cross-sectional study has started in August 2015 in a randomly selected five primary and intermediate public schools located in Hail city, Saudi Arabia. Consent was taken from the school authorities and from students prior to examination. Diagnosis was made mainly clinically. Children were referred to health centers wherever needed. Result Discussion: A total of 1724 male students were scanned for dermatological conditions. Ages range between 7 to 16 years. Mean age was 11.7 years. Recognized dermatological conditions were 68. Which is about 4% of total student. Skin Diseases prevalence were as follow: 34% Warts, 19% Eczema, 16% Hypopigmentation disorders, 7% Skin Tag, 4% Fungal Infection and 8% for other include (Chickenpox, Acne, Acute Paronychia, Psoriasis). 5.8% only seek for medical care. Conclusion: There is 4% prevalence of Skin Diseases among schoolboys in Hail, Saudi Arabia. With the Warts being the most common disease. Followed by Eczema, Moles and Hypopigmentation disorders. Education of families and student about skin conditions and care is needed because majority of conditions did not seek for any Medical evaluation or treatment.
Spectrum of Causes of Leukodystrophy of Patients Presenting to KAMC

Presenter:
Abdulrahman Anwar Alwakeel

Authors:
Muhammad Talal Alrifai, Abdulrahman Anwar Alwakeel, Mohammed abbas albrahim

Introduction & Background: Leukodystrophy is a group of diseases that would result in myelin sheath degradation which will affect the function, maintenance and growth of the white matter (1). Generally, any disease that causes Leukodystrophy comes from a specific genetic defect that would cause problems in producing or metabolizing the main components of the myelin sheath (2). Objective: Firstly, To identify the cases of patients diseased with Leukodystrophy admitted to KAMC Riyadh, Saudi Arabia. Secondly, to identify the cases via the investigations. Lastly, to formulate an algorithm for studying Leukodystrophy cases in Saudi Arabia. Method: This research included pediatric Leukodystrophic patients from 0-14 years admitted at KAMC with the diagnosis Leukodystrophy. Patient’s files were reviewed. The sample size was all pediatric patients who were admitted to KAMC with Leukodystrophy, of both genders From January 1st, 2000 – December 31st 2010 (42 Patients). Then the final diagnosis of leukodystrophy was identified in those files and reviewed. Result: Out of the 42 cases, 17 were unclear etiology and 25 were with a known diagnosis including: Metachromatic Leukodystrophy and Mitochondrial Leukodystrophy. Metachromatic leukodystrophy was the highest number between the 42 cases. Other detailed demographics (Age at onset, medical presentation, consanguinity), clinical exams, investigations and Radiological were reviewed, analyzed and included in the paper. Discussion: After statistical analysis was done on Demographic data (using of T test, Chai square, Fisher exact test) were viewed as statistically insignificant. Clinical findings have not proved to be statistically relevant. Radiological data proved to be significant. Certain disorders like MLC and PMD like have specific clinical findings. Conclusion: The research identified the causes of Leukodystrophy in patients who were admitted to KAMC in Riyadh, Saudi Arabia. The causes were mostly known diseases. Leukodystrophies had an overall bad and unknown outcome -40% of the cases remain of unidentified causes-. Common causes in our NGHA population included: MLD, mitochondrial disorders. Finally, a step wise workup was indicated and suggested to maximize etiology identification.
Relationship between Test Anxiety and Academic Achievement Among Undergraduate Nursing Students

Presenter:
Brooj Sayer Alenezi

Authors:
Brooj Alenezi, Nadiah Almutary, Supervised by: Dr. Eman Dawood and Ms. Rufa Mitsu

Introduction & Background: Anxiety is a common phenomenon that constitutes a universal cause of poor academic performance among students worldwide. It is a kind of self-preoccupation which is manifested as self-minimization and results in negative cognitive evaluation, lack of concentration, unfavorable physiological reactions and academic failure. Objective: Exploring the relationship between test anxiety and academic achievement among Undergraduate Nursing Students. Method: A descriptive correlation, cross-sectional research design was utilized to conduct the current study on a convenience sample of 277 undergraduate nursing students at College of Nursing, (KSAU), who gave voluntary consent to participate in the study. Participants were asked to complete a two-part questionnaire survey including participant’s demographic background and the Test Anxiety Inventory (spieberger, 1980). An explanation about the purpose and the nature of the study was offered for each participant. The participants were ensured about the confidentiality and anonymity of the collected data. Data were analyzed using SPSS version 22. Result: Test anxiety scores of the participants ranged between 20 and 74, based on their Test Anxiety scores only 14.4% demonstrated severe test anxiety, about 50.9% experienced moderate test anxiety and more than one quarter of the participant’s experienced mild test anxiety. Analysis of data revealed statistically significant negative relationship between test anxiety scores and students’ academic level ($r = -0.144$, $p = 0.01$) which explain that student in higher academic level experience less test anxiety. Pearson’s R revealed a negative none statistically significant relationship ($r = -0.090$, $p = 0.157$) between test anxiety scores and students Grade Point Average. Discussion: Results of this study concluded that a significant level of test participants experienced moderate to severe levels of test anxiety. It is fundamental to help out undergraduate nursing students to deal with stress and trim down test anxiety efficiently through group work via students, parents, faculty, academic advisors and other concerned parties. Conclusion: Students should be taught about effective time and anxiety management strategies for better academic achievements. Considering the physiological and psychological factors leading to severe test anxiety among undergraduate nursing students is highly recommended.
The Prevalence of Restless Leg Syndrome among Pregnant Saudi women

Presenter:
Nujood Hamad Aldubayan

Authors:
1Noha Mobeireek, 1Sarah Al-Jahdali, 1Nujood Al-Dubayan, 2Mohmd Khan
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Background: Restless leg syndrome is a sensorimotor sleep disorder that causes discomfort in the legs at rest and is relieved by activity. The prevalence of RLS in pregnancy is reported to be more common in pregnancy especially the third trimester and the symptoms tend to improve after delivery. Objectives: To determine the prevalence of RLS among pregnant Saudi women and to identify the associated factors. Method: A cross-sectional study conducted among pregnant women visiting obstetric clinic at KAMC-Riyadh from June to November 2014. We used a data collection form to gather all pertaining information regarding demographic data, number of pregnancies, and duration of pregnancy, comorbidities and symptoms of RLS. Results: Total number of participants enrolled was 517, mean age was 30.11±5.42 years. The most common comorbidity was anemia 19%. The prevalence of RLS was 21.3%. When we compared the risk factors and clinical characteristics of participants with RLS to those without, there was no significant difference regarding age, number of pregnancies or educational level. RLS symptoms were more common among women in the third trimester (24.1%) compared to the second trimester (14.3%) and first trimester (13.6%), p-value = 0.043. RLS was significantly associated with EDS as measured by ESS >10 (p=0.046) and poor quality of sleep as measured by PSQI (p=0.002). The stepwise multivariate logistic model identified anemia (OR: 1.850, CI:1.027-3.332, p- value = 0.040) and poor sleep quality (OR: 4.982, CI: 1.491-16.644, p-value=0.009) were associated with RLS. Conclusion: RLS in common among pregnant women, and is associated with other sleep disorders such as: EDS and PSQ. Anemia and third trimester was specifically associated with RLS.
Splenectomy is not Superior to Rituximab as a Second Line Therapy in Immune Thrombocytopenia Purpura

Presenter:
Mohammed Ghazi Alotaibi

Authors:
Ahmed S. Alaskar, Naila Shaheen, Mohsen Al Zahrani, Mohammed G. Alotaibi, Bader S. Al-Qahtani, Faris Ahmad, Mohand Alzughaiibi, Ismat Kamran, May Ann, Daham Al Daham

Immune thrombocytopenic purpura (ITP) is a common hematological disease treated primarily by steroid. Multiple options are available as second line therapy i.e. Azathioprine, Cyclophosphamide, Cyclosporin, Danazol, Mycophenolate Mofetil, Rituximab, splenectomy, TPO receptor agonist, and Vinca alkaloids. The aim of the current study is to compare response rate between patients, who had splenectomy vs. Rituximab as second line therapy. Methods: Adult patients who were previously diagnosed with ITP and did not respond to steroid or soon relapsed (6 months) during the period between 1990 – 2014 were included in the study. A quasi-experimental design was used. Categorical variables were compared using chi-square test. Continuous variables are compared using Wilcoxon rank sum test. Response to treatment was analyzed using logistic regression. Platelets change in three-month-intervals was analyzed using GEE. Data was analyzed using SAS 9.2. Results: Total of 143 patients with ITP were identified through outpatient medical records. 81 patients (57%) required no treatment but observation. 34 patients (55%) out of the treated 62 patients required second line therapy. 19 patients had received Rituximab, while 15 had splenectomy. Platelets at diagnosis were not different between study groups (p=0.083) but splenectomy group were younger (p=0.005). After intervention, average platelet count for Rituximab group was 120 in first 6 months and increased to 141 by end of 24 months. While in splenectomy group, platelet count reached 58 during first 6 months and peaked to 100 at 18 months. Then, it decreased to 46 by end of 24.
Factors that determine the choice of medical specialty and work environment among Saudi physicians: Results from a cross-sectional survey

Presenter:
Saud Abdulaziz Al-Sufayan

Authors:
Amr Jamal1, Ibrahim Al-Furaih, Saud Al-Sufayan, Mouhab Jamalaldeen, Ibrahim Abunohaiah, Abdullah Al-Huzaymi, Abdulmalik Al-Duhaim

Objective: The objectives of this study were to characterize the demographics of Saudi Arabian physicians in each medical specialty, and to identify the demographic and environmental factors that influenced their choice of medical specialty during and after medical school. Methods: A cross-sectional web-based survey was sent to 1249 practicing physicians in Saudi Arabia, chosen at random. The survey contained 29 questions covering demographics, personality characteristics, and specialist items related to their specialty. The responses were entered into and analyzed using SPSS. Results: Of the 456 (37%) who responded to the survey, 384 (84%) answered all the questions. Of these 384, 69% were male, and the mean age was 38 years old. The most common specialties were: surgery, general pediatrics, internal medicine, and family medicine. The most common time to choose a specialty was during internship. Males were the most satisfied with their jobs, along with those with a higher monthly income. The most common reason for specialty choice was main interest area (76%), followed by scarcity of specialties in regions (28%). Higher income potential and prestige of specialty influenced men’s specialty choice more than women. Gender limitations and restrictions had a greater influence on women’s specialty choice. The skills judged as necessary for specialties was different across areas. Mental skills were judged as more important for psychiatry, internal medicine, radiology, and neurology. Manual skills were judged as more important for ophthalmology, and surgery. Discussion & Conclusions: The results of this research provide a unique perspective on the factors influencing specialty choice in Saudi Arabian physicians. The most significant factor in determining medical specialty choice was the main interest area of physicians. Higher income and prestige also played roles in male physicians’ choices. physicians judge different skills as important depending on the specialty. This can serve as an aid for medical students deciding on their specialty.
The Impact of Computerizing Radiological Request Forms on Patient Care Services

Presenter:

Yahya Jamil Al Muallem

Authors:

Yahya Al Muallem, Mowafa Househ

Introduction & Background: In some Saudi healthcare organizations, outpatients are transferred to medical imaging departments for radiological examinations in a manual process using paper-based requests. Recently, in Saudi Arabia, electronic-based request forms have been implemented. Little is known about the impacts of electronic-based medical imaging forms. Objective: The purpose of this study is to evaluate the completeness of radiological paper-based forms in comparison with an electronic-based radiological forms. Moreover, the study will evaluate the clarity of information filled in the paper forms, adherence to complete required fields (including date of request, patient information, type of request, requesting physician’s information and signature) and alteration of written information. Method: An observational retrospective cross-sectional study designed to evaluate completeness and field legibility on both paper and electronic forms collected for the last three months (March – May 2015). The study measures the association among categorical variables using Chi-Square analysis. Result: The result of this investigation shows a significant association between completion and type of record $\chi^2 (1) = 151.372$, $p < 0.001$. Discussion: The paper-based forms appears with limited capabilities in terms of completion of required fields and legibility of written information that tend to have greater error rate compared to the electronic-based forms. Moreover, all collected electronic forms have shown zero records of faults and legibility ranging between readable and understandable information where paper forms have shown unclear information with significant rates. Conclusion: Electronic-based systems imposed completion of all required fields in all generated radiological requests, increased legibility level of required fields in each form, promoted the clinicians’ adherence to complete generated forms and minimized the possibility of unauthorized alteration.
Prevalence of Platelet Transfusion Refractoriness among Patients with Hematological Malignancies in a Tertiary Center in Saudi Arabia- a Prospective Cohort Study

Presenter:
Munira Abdullah AlKhashan

Authors:
Munira A. ALKhashan (1), Salwa ALRashed ALHumaid (1), Atheer ALOtaibi (1), Laura ALOlayan (1), Thuriya ALSumyya (1), Dr. Khadga Ahmed (1,2)

Introduction and Background: Oncohematologic patients require chemotherapy; therefore they are at risk of developing severe thrombocytopenia. In order to treat severe thrombocytopenia, platelet transfusions are inevitable. Platelet transfusion refractory is defined as “lack of response in post transfusion platelet increments after transfusion of allogeneic platelets. This study looked into the prevalence of platelet transfusion refractoriness in adult hematology oncology and stem cell transplanted patients at King Abdul-Aziz Medical City, Riyadh. Objective: To calculate the prevalence of PTR among adult patients with hematological malignancies and patients undergoing HSCT in (KAMC), a tertiary center in Riyadh, using a specific formula called CCI. Method: This was a prospective cohort study. After obtaining informed consents, multiple platelet counts were collected from each subject at baseline and one hour after different platelet transfusion events. Then, the corrected count increment (CCI) was calculated to evaluate the response by using a specific formula. Results and Discussion: A total of 102 events in 29 patients were recruited. Platelet transfusion refractoriness was found in 17 out of the 102 events. No significant correlation was found between age, gender, history of stem cell transplant and number of exposure to blood products. The prevalence of platelet refractoriness observed in this study (16.7%) was similar to that reported in international literature. However, an association between the type of cancer and the prevalence of platelet refractoriness was found. The data found suggests an association between platelet refractoriness and Acute Myeloid Leukemia (AML) and non-Hodgkin’s lymphoma. Conclusion and Recommendations: The prevalence of platelet refractoriness in Saudi hematology malignancies is similar to what was reported internationally. We recommend that a larger sample size be conducted in multiple centers to further elaborate on the prevalence and correlate different demographical & clinical factors that may be associated with platelet transfusion refractoriness.
Introduction: The rate of using Conscious sedation or Procedural sedation and analgesia is on the rise in all busy ER. The conscious sedation is defined as “a technique of administering sedatives or dissociative agents with or without analgesics to induce a state that allows the patient to tolerate unpleasant procedures while maintaining cardiorespiratory function”. Methodology: This research is a retrospective chart review at KAMC-R ER. Our aim is to identify the procedures, medication and age group of the patients. All pediatric patients aged from 0 to 14 years of age, who had undergone conscious sedation in 2013 in Pediatric Emergency unit were included. Results: 91 % of the cases was due to a minor trauma, with diagnostic procedures comes in a second place 6% followed by instrumentation use 4%. 60% required one sedative medication only, and one third required two medications. And only 6% required three medication. Ketamine was the most common used with frequency of 95.7%. Next is midazolam with a percentage of 32.2%. morph2 witch had a percentage of only 0.5%. Discussion: Using only one medication was more than half of the cases (62%). The most common used medication was ketamine by 91%. Our finding is similar to study done by roni. They had 241 patients while we had 212. The male population in their study was 59% while ours was 67%. Their study states that laceration is the most common presentation by 89% while we were minor trauma which by 91%. Conclusion: Conscious sedation is commonly used in our ER leading to definitely a lower time in ER and decreased admissions. it is clear that ketamine is a very special drug with excellent results alone and with minimal side effects.
**Application of Clinical Prediction Rule for Patients Suspected of Pulmonary Tuberculosis Admitted to Emergency in King Abdulaziz Medical City to Optimize Early Isolation**

**Presenter:**

Nawaf Mohammed Alahmary

**Authors:**

Dr. Salim Baharoon, Nawaf Alahmary, Abdulaziz Alshahrani, Dr. Ibrahim Almahmoud

**Background:** Failure of early recognition and respiratory isolation of patient with Pulmonary Tuberculosis (PTB) presenting to emergency department may lead to significant outbreak of tuberculosis. Solari et al has recently reviewed 13 of the published clinical prediction rules (CPR) for PTB. Only one of the 13 studies had shown high sensitivity and satisfactory specificity which highlight the need to validate any CPR locally before its application in clinical practice. Objectives: To identify clinical and radiological findings that optimally predict a diagnosis of PTB in emergency room and retrospectively test the usefulness of the previously published clinical predictors in Saudi population. Methods: This is a Retrospective case control study of all patients admitted through emergency room with suspected PTB (46). The control was patients admitted through emergency with diagnosis of community acquired pneumonia (106) at the same time period (2007-2013). Then testing the usefulness of Tattevin et al CPR on the subjects. Results: There was significant difference in hemoptysis, shortness of breath, night sweat and anorexia between the two groups. Also, in the radiological findings, cavitation and upper lobe infiltrate were found to have significant difference. When we tested Tattevin et al CPR, it showed that 87% (40/46) of PTB patients reached the threshold to be isolated. Also, when we tested it for the control group only 12% (13/106) reached the threshold. Conclusion: Applying of Tattevin et al CPR should improve current respiratory isolation of patient suspected of having PTB and it showed usefulness when applied to our study subjects.
The prognostic impact of hydrocephalus in Pilocytic Astrocytoma patients

Presenter:
Othman Zeyad Alhekail

Authors:
Othman Z. Alhekail, Neville Russell, Abdulaziz H. Abobotain, Mazen A. Alhumaid

Introduction & Background: Pilocytic Astrocytoma (PA) is a slow growing brain tumor. It is the most common pediatric primary brain tumor. Hydrocephalus is a common complication of PA. Limited information is available on how hydrocephalus may affect the outcome of PA management. Objective: To determine if hydrocephalus is a predictor of the prognosis of PA in terms of ICU length of stay, recurrence of tumor and repeated surgery in King Fahad National Guard Hospital in Riyadh (KFNGH). Method: This is an observational retrospective cohort study based on the 2004 - 2014 medical records of (PA) patients in the neurosurgery department in KFNGH. As PA is a rare condition with an estimated 40 patients in KFNGH during the study period, all patients who were admitted during 2004 - 2014 were included in this study. Data was collected on (Patient demographics, Presence of hydrocephalus & Pre-operative symptoms and post-operative complications). A comparison between hydrocephalic and non-hydrocephalic groups was made with a significance level of p<0.05. Result: Approximately half the patients had hydrocephalus (n=9). No significant difference was found in (ICU length of stay, Repeated surgery or Tumor recurrence). Although to our surprise, there was a trend favoring hydrocephalic group in all three aspects. Conclusion: Due to the limited number of patients with such condition. A multi-center data collection should be performed and a meta-analysis should be conducted.
Nursing Quality of work-life in a secondary care hospital in Riyadh city: a cross sectional

Presenter:
Salha Yahya M Alsharees

Authors:
Salha Yahya M Alsharees, Dr. Riyadh Alshamsan (Supervisor)

Introduction & Background: Quality of work life (QWL) in a hospital setting has become the primary concern of many organizations. It is defined as “the degree to which number of a work organization are able to satisfy important personal needs through their experiences in the organization”. High quality of work life can influence the productivity of employees. However, Information on QWL among registered nurses in Saudi is limited. We aim to assess the QWL among nurses working in a secondary hospital in Riyadh. Objectives: 1- To assess quality of work life among nurses in MOH hospitals in Riyadh- KSA. 2- To explore the factors that might influence QWL. Methods: A cross sectional on 435 nurses during 2015. We used Brooks instrument, to collect the data, which is a valid and reliable instrument that has been used globally to assess QWL. The items are divided to four subscales that are work/home life, work context, work design, and work world. Data was entered and analyzed using SPSS software. Results: Overall findings suggest that nurses were a little bit satisfied with their QWL. Lack of autonomy in decision making, inability to provide good patient care, inability to communicate well with their supervisor, lack of career advancement, team work, and feeling of belonging to the workplace were some of the factors influencing QWL among nurses. Significant score were reported among nurses who live with spouse/family members, those having children, non-Saudis, working as nurse managers or others, having longer experience of working as a registered nurse, having longer experience of working in KSA and those working in out-patient departments compared to others. Conclusions: Findings can be used to implement programs to improve nursing psychological well-being which consequently impacts their nursing care, retention and the health care organizational effectiveness. We also recommend assessing QWL on regular basis.
Assessment of Awareness of Medical Students in the Clinical Phase in KSAU-COM, Riyadh towards Middle East Respiratory Syndrome-Coronavirus during an Outbreak in the Hospital

Presenter:
Ahmad Mohammed Al-Mohrej

Authors:
Ahmad Al-Mohrej, Dr. Sajida Agha

Introduction: Recently, an outbreak of MERS-CoV took place in King Abdulaziz Medical City (KAMC) in Riyadh. This outbreak made the students at King Saud bin Abdulaziz University For Health Sciences (KSAU-HS) involved more in promoting health awareness in their communities. Hence, we aimed to assess their awareness of MERS including basic and clinical aspects. Method: This was a cross sectional study of phase 3 medical students. Data were collected by paper questionnaire and Google Docs. Measurements included researcher-administered and self-reported validated questionnaire. A p-value of less than 0.05 was considered statistically significant. Results: One hundred and thirty six students participated and showed good awareness of clinical aspects like etiology, mode of transmission, symptomatology, diagnosis, management, and prevention. However, 40% of students were not aware of the mortality rate. In contrast, a low level of awareness in basic sciences was found. About 82% of students were not aware of the genus of MERS-CoV and that 74% did not know the basic structure of the virus. Interestingly, fifth year medical students were more familiar with the incubation period than final year students (p-value <.05). Gender wise, more female students were knowledgeable about the incubation period and asymptomaticity of the disease than male students (p-value <.05). Discussion: Previous studies showed high level of awareness in general Saudi population and dental students that is consistent with the results of our study. However, no study found to include basic sciences as a parameter of assessment. Limitations were lack of similar local studies to compare with and the response rate of our participants. Conclusion: Awareness of MERS was found good in medical students regarding clinical related aspects. However, basic sciences related background of the students was not as expected. Therefore, we recommend strengthening their background by giving more awareness and integrating that of the curriculum.
The Perception of Non-pharmacological Management for Mental Disorders in Saudi Patients.

Presenter:
Mohammed Mansour Ghushayyan

Authors:
Dr. Khalid Al Jaber, Assistant Professor, Family and Community Medicine.
Dr. Mohammed Ghushayyan, Medical intern, College of Medicine, KSAU-HS.

Introduction & Background: Mental disorders are a prevalent complaint presenting to the primary health care. Despite the high prevalence of mental disorders, these frequently pass unrecognized. However, when they are recognized a comprehensive approach toward them should be initiated. One major part in approaching and managing a mental illness patient is the non-pharmacological management which is the initial step with various elements such as self-help books, family and friends support, psychotherapy, exercise and dietary patterns. Objective: To explore the perception of non-pharmacological management for mental disorders in Saudi patients at national guard health care centers in Riyadh, Saudi Arabia. Method: A cross-sectional KAP (knowledge, attitude, practice) survey study with validated self-developed paper-based Arabic questionnaire which was utilized in interviewing 32 Saudi patients older than 18 years and visiting the study area. The interviews were conducted in the last two months of 2014. Result: For gender distribution, 19 of the 32 respondents were males and 13 were females. Our results showed that our respondents have a mean age of 50 years and 8 family members. 72% of our respondents have a positive attitude toward the benefit of psychotherapy although one quarter of them don’t know about psychotherapy. In addition, 38% of our respondents prefer to see a psychotherapist or psychiatrist first in case of facing mental health problem. Discussion: Respondents who know about psychotherapists and psychiatrists have a positive attitude toward them. It is indicated that more effort is needed to clarify about psychotherapy benefits and the availability of general and family physicians, psychotherapists, and psychiatrists to our community to discuss mental health issues.
Gender-specific oral health beliefs and behaviors among adult patients attending King Abdul-Aziz Medical City in Riyadh

Presenter:
Abeer rofidi alshehri

Authors:
Abeer alshehri, Aljaze alshubaiki, Fatimah alssafi, Hoda alamam, Renad alshunaiber (1) Prof. Abed al hadi hamasha (2)

Introduction: Studies assessed gender differences in oral health behavior and attitude are scares. No such studies were found among Saudi residents. Attributable to lack of understanding of the gender differences in beliefs and behaviours among Saudi population, this study investigated variations in males and females beliefs and behaviours toward oral health. Methodology: A cross-sectional study was designed to obtain information from patients attending the outpatient clinics of king Abdulaziz Medical City. Of the 553 self-reported questionnaires, 519 were filled comprising 251 males and 268 females. The questionnaire consisted of two parts: demographic questions and 25 questions assessing belief and behavior related oral health. The statistical analysis involved frequency distribution and chi square tests. Results: Most of participants expressed high beliefs of the importance of tooth brushing (95-98%); importance of carbohydrates to caries (92-93%); importance of regular dental visits (90-94%); however, female participants reported significantly more tooth brushing, more restriction use of carbohydrates and dental visits. When comparing beliefs and behaviors towards the importance of oral health styles we found a gap of 12-45% between those who believe of health behaviors and those who actually adopt them. Despite the comparable beliefs among genders, females were found to act more positively than males in terms of tooth brushing (gap=18% vs. 31%), dental visits (gap=13% vs. 24%), and carbohydrate use (gap=15% vs. 23%). Conclusion: The study presents valuable information about the discrepancies between beliefs and behaviors of Saudis. It also indicated that females act more positively toward oral health than males. Educational campaigns that are conducted to increase the knowledge about oral health need to be replaced with other campaigns targeting shifting behaviors toward adopting healthier behaviors specifically among males than increasing their knowledge about oral health.
Parental perception, attitude and norms toward their children’s weight status and body image in Riyadh, Saudi Arabia

Presenter:
Najla Jazzaa Alhraiwil

Authors:
Najla J. Alhraiwil, BSc, MPH, Hoda Jradi, PhD, MPH, MSC, Amen Ba Wazir, BMBS, PhD, Mustafa AlZoughool, PhD

Introduction: Worldwide the prevalence of overweight and obesity in children rose by 47.1% between 1980 and 2013. Prevalence of overweight, obesity and severe obesity among Saudi children of all age groups varies between 2 to 23.1%. Generally, childhood obesity is not perceived as a health threat by parents, which explains their resistance for prevention programs. Current studies are mostly from western countries and there is a lack of information from the Saudi Arabian population on this topic. Objective: To assess the perception of Saudi parents toward their children’s weight and body image and related factors. Methods: A cross-sectional study was conducted among 426 children (1-8 years old) and their caregivers who were recruited from pediatric clinics. Demographics, anthropometric measures, childfeeding and life style factors, knowledge about childhood obesity, and scales of perception of body image (verbal and visual) were collected. Bivariate analysis and multinomial logistic regression were conducted for correlates of knowledge and perceptions across parental characteristic. Results: More than half (52%) of Saudi parents misperceived their children’s actual weight both verbally and visually (P =0.01). Participants were 2 times more likely to correctly state their perception verbally than visually (P= 0.01). The term “unhealthy weight” was the most (29.2%) accepted for a child with a weight problem. Most undesirable terms were “Bear” (82.1%), “obese” (71.8%) and “extremely obese” (58%). Parental knowledge was not significantly associated with perception (P value= 0.70). Child’s age (≤ 6.5 years) (OR= 5.1, P< 0.001), child’s normal BMI (OR= 32.8, P<0.001), parents’ education of college or more (OR= 2.9, P<0.02) child’s computer/tablet use (< 2 hours) (OR=5.1, P<0.001), were all independent predictors of verbal and visual correct perception of child’s body image. Discussion: Saudi parents’ perception toward their children’s weight differs from actual measures. These results are in line with the published literature. Conclusion: This is the first study assessing parental perception of pre-adolescent children’s weight status among Saudis. Parental misperception is a major risk factor for obesity in children and should be on the prevention agenda.
Assessment of Mothers’ Knowledge About Oral Health In National Guard Primary Schools, Riyadh, Saudi Arabia

Presenter:
Ibrahim Farhan aljabali

Authors:
Ibrahim aljabali, Mohamed aldosary, Abdullah altamami, Abdulrahman, Dr. Nasser AlShrim, Obaid, Emad alshehri

Introduction & Background: The leading cause of dental caries and other serious problem in children mouth is not because of children themselves but because of their mothers lack the important knowledge about good oral health. Children obtain living skills and knowledge from their mothers and up to a specific age they rely on their mothers in forming their habits so, mothers play a critical role in preventing dental problems in children. Therefore, it is important that to educate mothers early about the prevention and treatment of oral health. Objective: Evaluation of mother’s knowledge about oral health in primary schools of National Guard, Riyadh. Saudi Arabia. Method: A cross-sectional study was carried out in primary schools of King Abdullaziz Iskan City. Four hundred questionnaires were handled to students of selected schools. The questionnaire starts with demographic questions, mother’s knowledge of oral health related questions and socio-economic status of the family. Mother age, education level, and family income were considered as factors that might influence the mother’s knowledge of oral health. Result: We received 257 completed questionnaires with the response rate of 64%. It was revealed that there was a lack of knowledge and awareness of importance of fluoride (62%), regular dental visit (59%), and plaque (24%). In contrast, a good knowledge about brushing and the relation between the oral health and general health was observed (95%). Also mother with high level of education have knowledge better than mothers who have low level. In addition, the families with higher income have more knowledge especially about fluoride (p=0.034) and dental visits (p=0.022). Discussion: A study of Akpabio, et al. in USE (2008) shows that families with lower incomes had less knowledge concerning the utilization of health care services just like the result of this study show that there is a significant relationship with a p-value of (.032) between number of dental visits and family income. Conclusion: Mother’s knowledge, about the importance of oral health need to be improved. Coordinated efforts by dentists and other health professionals are required to impart dental health education about oral health among parents.
Predictive Value of Fecal Occult Blood Test in Colorectal Cancer among Saudis

Presenter:

Rakan Anas Sambas

Authors:

PI: Dr. Abdulmonem Swied
Co-Author: Dr. Baraa Alghalyini, Rakan Sambas

Background: According to the Tumor Registry Annual Report in 2012 reported by the Oncology Center Research Unit in King Faisal Specialist Hospital & Research Center, colorectal cancer (CRC) is the 2nd most common cancer in men and the 4th most common cancer in female in Saudi Arabia. Studies show that screening programs reduce the treatment and the prediagnosis evaluation cost of CRC, enhance survival rate and lead to a better prognosis (1-6). Fecal Occult Blood test (FOBT) is one of the most cost-effective and safe tools used by primary health care physicians to screen for CRC in asymptomatic individuals above the age of 50 according to many studies (7-11). Objective: Our primary objective is to assess the positive predictive value and the negative predictive value of FOBT in the detection of CRC in Saudi adults at King Abdulaziz Medical City (KAMC). Moreover, we aim to explore the trend of colorectal cancer screening behavior among the primary health care physicians in NGHA-HA. Methods: The study was conducted in KAMC as a retrospective chart review of all Saudi patients above the age of 50 from 2013-2014 who had FOBT and colonoscopy. Results: The positive predictive value was 70.8 % with 95% CI [42.8% to 88.7%] and the Prevalence was 72.7% with 95% CI [3.37% to 13.8%]. Conclusion: We concluded that FOBT is being underutilized by primary health care physicians and the patients are under screened as it is used more as an aiding diagnostic tool rather than a screening tool due to the absence of any colorectal cancer screening program in NGHA-HA primary health care clinics. FOBT could not be fully evaluated as the positive predictive value and the prevalence were unreliable due to small sample size. The negative predictive value could not be measured due to settings limitations.
Incidence and predictors of restenosis post percutaneous coronary intervention at
King Abdulaziz Medical City-Riyadh, Saudi Arabia

Presenter:
Haifa Abdullah Alshammary

Authors:
Haifa Al-shammary, Dr. Anwar E. Ahmed, Dr. Mahmoud Elbarbary, MD, M.Sc., PhD

Coronary heart disease (CHD) considered one of the most common form of cardiovascular diseases and leading cause of heart attack. Percutaneous coronary intervention (PCI) with or without intracoronary stent placement has emerged as an effective treatment for the management of patients who experience ischemia symptoms. However, in-stent restenosis is considered one of the main problems post- (PCI) and can lead to serious consequence like cardiac arrest if it is not having urgent treatment and revascularization Methods. A retrospective cohort study was conducted on patients who admitted to King Abdulaziz Cardiac Center at (KAMC-Riyadh). We included all patients (N=200) who diagnosed as acute coronary syndrome (ACS) and underwent PCI from January1, 2009 to October 4, 2009. Data on restenosis and laboratory tests of these patients were gathered from January 1, 2009 through December 31, 2012.

Results: Of the 200 Saudi patients who were admitted to KACC (KAMC-Riyadh) from January1, 2009 to October 4, 2009, the presence of restenosis was found in 28 (14%). According to our data, restenosis occurs 5.04 times more often in patients with history of CABG than in patients with no history of CABG (OR =5.04; 95% CI, 1.261 to 20.177; P = 0.022). The study also noted that the Use of Bare-Metal Stent (BMS) and Drug Eluting Balloon was significantly associated with restenosis in comparison to Drug Eluting Stent (DES) (OR 5.4, 95% CI 2.003 -14.65, p = 0.001). The patients with restenosis tend to have higher cholesterol level. Conclusion: restenosis was found in (14%) out of 200 patients. Our study indicates that the risk of developing in-stent restenosis was increased in patients with history of CABG, high cholesterol level, and BMS/DE balloon. This findings suggest larger study is needed to assess the risk factors of developing restenosis.
Road Traffic Collisions in Riyadh, Before & After Saher Speed Cameras, Effect On Outcome

Presenter:
Mohammad Abdullah Almalki

Authors:
Mohammad Abdullah A. Almalki, Dr.Meshal Alhadhoud, Dr. Ahmed H Al-Hussain, Dr.Khalid Albedah, Dr. Wael Taha

Introduction: Road traffic collisions are considered one of the leading causes of death and disability worldwide. Speed cameras are increasingly used to help reducing traffic speeds in the belief that this will reduce road traffic collisions. Objectives: The aim of our study was to compare the numbers, severity, clinical characteristics and outcomes of road traffic collisions patients transported to our institution before and after implementing Saher system in 2010 to examine speed cameras effectiveness. Methods: This was a retrospective cohort study that includes a total number of 731 Patients of all road traffic collision patients that presented to King Abdul-Aziz medical city from 1-3-2009 to 1-3-2010 and 1-5-2010 to 1-5-2011. Subjects in this study were identified using trauma registry and medical records. Data were compiled in Microsoft Excel and analyzed using the SPSS software. Result: There was no significant difference in mortality rate between the subjects who died from a motor vehicle accident before and after the implementation of Saher system (p=0.48). Hospital disposition is the only variable that showed significant difference (p=0.003), there was no significant deference’s in hospital stay (p=0.67), ICU stay (p=0.43) and intubation period (p=0.10) among traumatized subjects before and after the implementation of the Saher system. However, this result is highly questionable in regards to the variable scale of measurement. Conclusion: There was no significant reduction in mortality rate before and after implantation of Saher system. None of the demographic or clinical characteristics showed significant difference before and after the implementation of the Saher system except for hospital disposition (p=0.003). Other studies that include multiple trauma centers, number of car accidents with accurate estimation of sample size are needed in order to confirm the result we found in this study.
Psycho-Social Impact of Prosthetic Heart Valves On Young Saudi Females

Presenter:
Ohood Hamad AlAamer

Authors:
Dr. Mohammed AlGhamdi, Ohood AlAamer, Dr. Emad Masuadi

Introduction & Background: Many patients with prosthetic heart valves (PHV) in Saudi Arabia fall at young age. Females in the reproductive age may encounter a significant amount of emotional stress due to struggling between own health, natural desires, husbands demands and societal expectations. Different types of PHV may impose variable degrees of psychological disturbances and family disruptions. Objective: The aim of this study is to evaluate presence and magnitude of psycho-social effects of PHVs in young Saudi females. Method: Seventy-five Saudi females with PHV (18 to 50 y) and their age and marital status-matched controls were included in the study. Self-administered questionnaire, that includes short-form Depression, Anxiety, and Stress Scale (DASS) was used to obtain data. Result & Discussion: Mechanical valve (MV) group (n=49) were 6.5 y older (P=0.001), more illiterate (p<0.001) and less employed (p=0.031) than biological valve (BV) group. Mean marital duration was 22.6 y in MV group and 12.6 y in BV group (p<0.001). Depression was least frequently observed in the MV group (P=0.022), while a trend of higher DASS domains was observed in the BV group (p=NS). Predictors of lower depression rate include; living outside Riyadh city, lower level of education, being unemployed and having a supportive husband. Conclusion: Patients with MV have the most stable psychological status, probably as a result of stronger spousal relationship. Recommendation: Counselling husbands may strengthen spousal relationship and improve psychological wellbeing of patients with PHV.
Introduction & Background: Diabetic peripheral neuropathy, defined as “the presence of symptoms and/or signs of peripheral nerve dysfunction in people with diabetes after the exclusion of other causes. It is a common complication of long-term diabetes and its prevalence varies among different populations. Objective: The objective of this study was to identify the prevalence and risk factors of diabetic peripheral neuropathy (DPN) among the type 1 and type 2 diabetic patients in hospitalized Saudi population. Method: A retrospective, cross-sectional study was conducted at King Abdulaziz Medical City (KAMC) in Riyadh, Saudi Arabia. A total of 2096 adult diabetic patients were admitted to the hospital between January 1, and December 31, 2013. From these, patients with DPN were identified and serve as case patients, and 3-4 matched control patients were identified for each case patient. Result: The overall prevalence of DPN in diabetic patients was 3.4%. In patients with type 1 and type 2, the prevalence of DPN was 1.3% and 4.1%, respectively (p<0.001). Several risk factors were identified to be associated with DPN including age, duration of diabetes, type of treatment, glycemic control, and other comorbidities. Discussion: In this study we observed prevalence of DPN was 3.4%, which is lower in comparison to previous studies. Many previous studies of DPN have reported a wide range of prevalence estimates. Different prevalence estimates may reflect differences among countries, settings, population of the study, different research design and diagnostic tools for DPN. Conclusion: The results of our study showed a relatively low overall prevalence of DPN. Type 1 diabetes was associated with significant lower prevalence of DPN than type 2.
Liberation from Mechanical Ventilation - Simple, Difficult or Prolonged?

Presenter:
Ryan Nasser S Alqahtani

Authors:
Mohammed Hassan O. Alsomali, Farhan Al Enezi, Abdullah Al Mutrafy, Mohammed Al Mutairi, Nesrin Al Harthy, Abdullah Al Dhaish, Winnie Philip, Manjush Karthika

Introduction & Background: Weaning/ Liberation is the process of gradual decrease of ventilator support and to facilitate spontaneous breathing for the patient. An international consensus conference published in 2007 proposed to categorize ventilated patients into 3 groups, based on the difficulty and duration of the weaning process: simple weaning, difficult weaning and prolonged weaning. Objective: This study was done to assess the categorization of simple, difficult and prolonged weaning in the intensive care unit (ICU) of King Abdulaziz Medical City (KAMC). Method: This observational cross-sectional study recruited 80 patients who were on weaning phase from September 2014 to May 2015. Result: Out of 80 subjects, 72.5% of them were with normal lung ventilation strategy, followed by parenchymal (20%) and airway ventilation (7.5%). The reason for ventilator support was primarily respiratory (16.2%), cardiovascular (21.2%), neurological (22.5%) and others (40%) which included overlapped primary too. Majority of the subjects were categorized under simple weaning (n=54, 67.5%), followed by difficult (n=20, 25%) and prolonged (n=6, 7.5%). Chi-square analysis with Yates correction was done to relate diagnosis and patients categorization, which was found to be statistically significant (p<0.05). Discussion: In our study, the causes of weaning failure were mainly of respiratory, cardiac and neurological in origin. The success or failure of the first weaning trial differentiated simple weaning from the difficult and prolonged weaning. When the first weaning trial fails, the aim is to achieve optimal liberation so that to prevent difficult weaning from becoming prolonged weaning. Conclusion: We conclude that majority of the patients do get categorized under simple weaning, because the heterogeneous population has increased number of subjects with non-diseased lungs. It was also concluded that no relevant clinical consequences were found amongst simple and difficult weaning, whereas the morbidity will be higher in prolonged weaning.
Clinical Outcome of Extubation Failure in Intensive Care Patients

Presenter:
Abdulaziz Mohammed A. Albaraikan

Authors:
Abdulaziz Saleh S. Alrshaid, Farhan Al Enezi, Abdullah Al Mutrafy, Mohammed Al Mutairi, Nesrin Al Harthy, Chris Sara Mathew, Winnie Philip, Manjush Karthika

Introduction & Background: The weaning protocols practiced in the intensive care units (ICUs) of King Abdulaziz Medical City (KAMC) are standardized, evident and protocol based. Weaning and extubation failure complicates mortality and morbidity rate of ventilated patients globally. Objective: To assess the clinical outcome of extubation failure in the ICUs of KAMC. Method: This observational cross sectional study included all adult patients (>18 years) who were on invasive mechanical ventilation in the ICU for one year from September 2014. Fifty adult subjects who were intubated and ventilated for more than 24 hours and who gets reintubated within 48 hours of extubation were selected by consecutive sampling technique. Result: The commonest cause of extubation failure was of respiratory in origin, specifically hypoxia, tachypnea and respiratory distress. It was observed that after reintubation, 44% of the subjects got successfully extubated, 34% ended up in tracheostomy and 22% was expired. The association between outcome and certain variables (Cause of reintubation, lung pathology and window period of reintubation) was assessed by chi-square test and found to be statistically not significant (p>0.05) Discussion: It was observed from this study that, though majority of the patients got successfully extubated after reintubation, the morbidity and mortality rate too remains high. Present study indicated that various causative factors for extubation failure included respiratory, cardiac and neurological in origin. It was also observed that the main factors for reintubation were of respiratory in origin, presented with oxygen desaturation, increased work of breathing and hypoxia. Conclusion: It was concluded that successful extubation is predictable through respiratory, cardiac and neurological factors. However, the accuracy to predict extubation outcome still lacks. The patients who require reintubation carry an increased risk of mortality and morbidity. Hence, detailed studies are recommended to find out the possible factors to foresee the possibilities of reintubation.
Background: In the last August 2015, Corona was accounted as the 9th outbreak since June 2012 in Saudi Arabia. Very little is known about the nature of the disease and no information available about the public awareness regarding prevention from the Mers-Cov. Objective: This study aims to describe the knowledge of the adult population residing Riyadh City and their attitude and protective practices toward the MERS-CoV. Method: Across sectional survey targeting people approaching malls in Riyadh city, Kingdom of Saudi Arabia through using a randomly distributed self-administrated questionnaire. This questionnaire was used to measure level of knowledge, attitude and practice toward corona virus in the study population. Result: From the overall sample of 875 participants, 420 (48%) were male and 455 (52%) were female with the overall mean age of 32.2 (SD± 8.6 years, p=0.000). Most of the respondents (76.8%) showed a positive knowledge about the corona virus characteristics. However, only less than one quarter (23.6%) of them know about the viral causes of Mers-Cov syndrome with females were more knowledgeable than male participants with significant difference (29.5% vs. 17.1%, respectively, p=0.001). The attitude of the participants toward prevention of Mers-Cov was not satisfactory (40.7%) in comparison with the knowledge and their practice (92.5%). Conclusion: The study showed an overall good knowledge and practices but not enough attitude toward Corona virus control and prevention. Most of the participants appreciated the importance of awareness campaigns.
Vitamin D Deficiency and Myocardial Ischemia on Single-photon Emission Computed Tomography (SPECT) in Saudi Patients at KAMC Between 2010-2012

Presenter:
Tasneem Omar Alnashwan

Authors:
Tasneem Omar Alnashwan, Haneen Yasef Alkobaidan, Hanin Sunaid Almuzaini, Dr. Mouaz Almallah

Introduction: Coronary artery disease (CAD) is the most common heart disease worldwide. Recent studies suggested that vitamin D deficiency increases the risk of developing CAD but showed conflicting results. However, there is no enough data about the association between CAD and low levels of vitamin D in Saudi Arabia. Objectives: This study was done to determine the association between Vitamin D deficiency and the degree of myocardial ischemia on Single-photon emission computed tomography (SPECT) in patients with suspected CAD. Methods: This was an observational retrospective cross-sectional study in which electronic medical records of 285 KAMC patients who underwent SPECT and had their vitamin D measured within 6 months duration between the years 2010-2012 were reviewed. The sample was collected via convenient sampling including adult patients from both genders. Their data was then entered and analyzed using SPSS. Results: There was no significant correlation between vitamin D as a continuous variable and mild myocardial perfusion defect (SSS3) (P value = 0.706). SSS3 and vitamin D <25nmol/l(vitD25) showed no significant correlation (P value = 0.776). Significant perfusion defect (SSS7) and Vitamin D showed no significant correlation (p value = 0.197). SSS7 and vitD25 showed no significant correlation (p value = 0.187). Discussion: This study demonstrated a trend in the association between vitamin D deficiency and the degree of myocardial perfusion defect, however, not sufficient to reach significance even after adjustment of coronary risk factors. The strengths of this study that it was the first up to our knowledge to use SPECT instead of angiography to assess the myocardial perfusion defect. However, it was limited by lack of family history of cardiac diseases, medications, smoking history and small sample size. Conclusion: There was no correlation between vitamin D deficiency and myocardial ischemia. Further studies and trials are suggested.
Sleep quality and general health impact on academic performance in students of a Saudi university.

**Presenter:**
Meshail Abdullah AlAamer

**Authors:**
Meshail AlAamer, Abdulullah AlAdel, Laura AlOlayan and Dr. Omar AlModayfer.

Introduction & Background: Nocturnal sleep deprivation is a common behavior during academic years and had been postulated to affect many aspects of health and academic performance. Objective: We attempted to correlate the quality of sleep and its effects on the general mental health and academic performance of health sciences students. Methodology: The cross-sectional study was carried out in King Saud University for Health Sciences in Riyadh, Saudi Arabia, From September 2014 to September 2015. A sample of 378 students of both genders was included via convenience sampling style. Validated self-report questionnaires: Pittsburgh Sleep Quality Index (PSQI) and General Health Questionnaire (GHQ) were used. Demographic and academic information was collected from the students. Result: • PSQI and GHQ scores did not appear to predict academic performance; there was no significant correlation between student sleep quality and general health scores and GPA ($r^2 = .091$, $P = 477$). • Upon reversing the model, GHQ scores were found to significantly affect quality of sleep (OR = 0.301, $p<0.001$) while academic performance (GPA) was not found to significantly affect sleep quality ($p = 0.734$). Discussion: The non-significant result does not rule the role sleep plays in learning and information processing since we had only measured academic performance in terms of GPA, sleep may play an important role in how student’s preform in settings where maximum in information must be retained. We therefore conclude that the effect of sleep quality and general mental wellbeing on academic achievement is inconclusive since achieving educational goals may be quantified with more indices than formative testing (GPA). Confirmation of higher level of distress as reported by the GHQ scores plays a role in reducing the quality of sleep; this is expected since studies report that high level of stress frequently causes inability to fall or stay asleep. Conclusion: The effect of sleep quality and general mental wellbeing on academic achievement is inconclusive.
Attitude and behaviour of drivers on traffic regulation in Riyadh, Saudi Arabia

Presenter:
Abdullah Saad Aldamaeen

Authors:
Mr. Abdullah Aldamaeen, Dr. Amen Bawazir. Dr. Hoda Jradi

Introduction: Road traffic injuries (RTIs) is a concerning issue affected both developing and developed countries. RTIs ranked first as a cause of DALYs (12.4%) and it is responsible to nearly 11% of the total death for males in Saudi Arabia. Nearly 95% of road traffic accidents are due to human errors. Objective: This study aims to identify attitude and behavior of drivers on traffic regulation in Riyadh City, Saudi Arabia. Method: A cross-sectional survey undertaken a 520 drivers in different public places in Riyadh city, kingdom of Saudi Arabia. All Arabic drivers who aged 18 years and above with at least two years driving experience are included. A self-completion questionnaire with Dula Dangerous Driving Index as an instrument was used to analyze attitude and behavior of drivers on traffic regulation. Result: From the total 520 study population, 298 were Saudi (57.3%) and 222 (42.7%) were non-Saudi. The overall mean age 34 years (± SD 8.794). Over 90% of the drivers consider that Road Traffic Accident (RTA) is a major health issue that need urgent solution. High number of enrolled drivers were out of compliance to driving regulation such as exceeding speed limit and using cell phone while driving (70% and 82%, respectively). Furthermore, 17% and 9% of the respondents were involved in crash in the past 2 years due to exceeding the speed limit and cell phone call while driving respectively. Drivers responded positively toward the application of various countermeasures to reduce illegal speeding. However, those involves penalty are highly not accepted. Discussion: This study found that younger driver are likely to engage in unwanted behaviors. This finding is similar to previous reports in Saudi Arabia and different countries worldwide. Moreover, it was showed that, exciding speed limit, engagement in past history of crash or near-crash events, are more likely to have cognitive, aggressive and risky driving behaviors. Conclusion: The drivers who are used to broken the traffic law are more likely to show cognitive, aggressive and risky driving behaviors. Development a comprehensive program that include law enforcement combined by public campaign to increase awareness is highly recommended.
Pattern of Intestinal Parasitic Infections at King Abulaziz Medical City, Riyadh, Saudi Arabia and its Primary Health Clinics across Saudi Arabia

Presenter:

Hamad Mohammed Al Selaimy

Authors:

Hamad Mohammed Al Selaimy, Saad Mohammed Al Muqrin, Dr. Sameera Mohammed Al Johani

Background: Intestinal parasites are considered one of the most common infections worldwide, 3.5 billion people are considered as affected, and 450 million are considered ill as a result of these infections. Objective: This study aimed to undertake an epidemiological survey of intestinal parasitic infections in a tertiary care hospital (KAMC) and its primary health clinics from January 2007 to December 2012. Methods: This is a retrospective cross sectional study from all patients’ records and microbiology data from January 2007 until December 2012 regarding all intestinal parasites isolated at KAMC laboratory and its primary health clinics. The samples included pediatrics, adults, and elderly from in and out-patient clinics. We evaluated the frequency and organisms involved and associated it with patient’s nationality, gender, and age. Results: All positive samples for intestinal parasites were included, which is 688 samples. Giardia Lamblia (51%) was the most common parasite that was encountered followed by hookworms-Necator or Ancylostoma (13%), and then Trichuris trichiura (8%), while Taenia species (0.1%) exhibited the minimum prevalence. Males (33%) were more affected by Giardia Lamblia than females (18%) and were also more affected by hookworms (11%) than females (1.5%). The mean age for infection was 23 years (±15.53 SD). The infection rate was highest in the 25-34 years age group and accounted for 29% of positive cases followed by 7-17 years age group which accounted for 22%, while >65 years age group showed the least infection rate which accounted for 2%. Giardia Lamblia was the most common parasite across all age groups. Conclusion: Giardia Lamblia was found to be the common etiologic agent of intestinal parasitic diseases among the study population. There is an extensive need for multi-institutional collaborative studies to get more valuable information on our population, to identify risk factors, and prevention strategies.
Introduction & Background: A spinal cord injury (SCI) begins with a sudden, traumatic blow to the spine that fractures or dislocates vertebrae. There is lack of studies related to spinal cord injury globally and these studies were different from rehabilitation environments in Saudi Arabia. Objective: To investigate the role of occupational therapists who manage SCI patients in Saudis’ hospitals. To investigate adherence of Saudis OTs to evidence based practice. Method: A descriptive cross sectional study design was used to collect data from OTs and retrospective design was sued to collect SCI’ data from medical records. Result: In this study, the case records of 13 SCI admitted to KAMC during one-year period was reviewed. All SCI patients were men with mean age of 40 year old. Out of 13 patients 40% had complete injury and 60% were incomplete. The most common causes for the SCI were traffic accidents and they received various type of intervention with majority of patients received equipment description and help with ADL. The outcomes of OT interventions were around 40% were fully independent functionally and around 23% of walking with assistive technology. For therapists study OTs perceived that 80% of patients received 3-6 months OT intervention. Paraplegia was the most consequences of spinal cord injury. Discussion: Similar to other studies in Saudi Arabia, Road traffic accidents were the main cause of TSCI and this affects mainly the male population. Primary prevention strategies specific should be developed to decrease the number of car accidents. Conclusion: This study has demonstrated the need for further research to explore reasons for inadequacies in services and to identify the best way of fully recording accurate information in developing countries. Additionally, such research is highly essential to plan for appropriate management programs, effective implementation of primary prevention strategies.
Health and Well-being among Women in Riyadh, Saudi Arabia: A report about their Perceptions, Life-style and Morbidities

Presenter:
Zoha Mohammed Alharbi

Authors:
Hoda Jradi, PHD; Mustafa Al Zoughool, PhD; Amen Bawazir, MBBS, PhD

Objective Women’s health is a priority on the global agenda for gender equality in health. In Saudi Arabia women account for half of the population, yet there is scarcity of research related to their health issues. For the first time, this study explored Saudi women’s perception of their physical, mental and social well-being, life style factors, and practices. Methods A cross-sectional study was conducted among 900 women who visited malls during data collection period in regions of Riyadh city, Saudi Arabia. Study instrument included variables about demographic characteristics, medical history, life style practices, psychological evaluation, perceived causes of disease and death, barriers to prevention, and self-rated physical and mental health. Descriptive statistics was conducted for all study variables in addition to bivariate and multivariate logistic regression for predictors of health and well-being. Results The overall mean age was 29 ± 9.7 years. The majority (78%) of women rated their physical health as excellent, very good, or good. Also, 80% rated their mental health as good or better. More than half (54%) rated their social well-being as favorable. Optimal health as a combination of all three variables (physical, mental and social and well-being) was perceived high by 34% of participants. High level of education (OR= 8.8; p <0.001), high income level (OR=7.5; p < 0.001), unfavorable built environment (OR=0.08; p < 0.001), depression (OR = 0.4; p <0.001), and back pain (OR=0.4; p < 0.008), were all independent predictors of self-rated health. Discussion This sample of Saudi women rated their physical, mental, and social health and well-being higher than women in the rest of the region and yet their optimal health (combination of all three) was classified as low. High education and income as predictors of good health are compatible with the literature. Back pain and depression were also listed in the literature among the leading causes of disease and disability among women in Saudi Arabia. Conclusion The enjoyment of highest attainable standard of health is one of the fundamental rights of every human being regardless of race, religion, economic, social condition, or gender. This study is a weak up call to prioritize women’s health in Saudi Arabia.
Systematic review and meta-analysis for the use of ultrasound versus Radiology in diagnosing of pneumonia

Presenter:
Saeed Ali Alzahrani

Authors:
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Background: Ultrasound has been increasingly used for diagnosing pneumonia, especially in critically ill patients. It can be used easily and immediately. Also it can give you higher accuracy in many pathological conditions such as, consolidation, pleural effusion and interstitial syndrome compared to chest radiography. We are conducting this systematic review followed by meta analysis for the accuracy of ultrasound versus chest x-ray and/or CT scan regarding diagnosis of pneumonia. Method: We conducted a systematic search of published studies comparing the diagnostic accuracy of Lung Ultrasound (LUS) against a reference chest x-ray (CXR) and/or CT scan and/or clinical criteria for pneumonia in adults aged ≥18 years. Eligible studies were required to have a CXR and/or chest CT scan at the time of evaluation. We manually extracted descriptive and quantitative information from eligible studies, and calculated pooled sensitivity and specificity using the Mantel-Haenszel method and pooled positive and negative likelihood ratios (LR) using the DerSimonian-Laird method. We assessed for heterogeneity using the Q and I² statistics. Results: Eighteen studies containing 2111 subjects were included in this meta-analysis. The summary estimates for lung ultrasound in the diagnosis of pneumonia in the studies included were as follows: sensitivity and specificity 0.95 (0.94-0.96), 0.95 (0.93-0.96) respectively. Pooled positive LRs was 14.24 (8.13-24.97), cochrane-Q=67.69;Df= 17 (p=0.0000), and pooled negative LRs was 0.06 (0.04 to 0.09), cochrane-Q=24.98. Df= 17 (p=0.0951). In conclusion Lung ultrasound has higher accuracy in the diagnosis of pneumonia.
Clinical and Virological Outcome of Entecavir Therapy in Patients with Chronic Hepatitis B

Presenter:
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Authors:
Abdulrahman A. Aljumah, Nawaf A. Bin Selayem, Sultan Y. Alhowti

Introduction & Background: Hepatitis B virus (HBV) is a life-threatening liver infection. Entecavir (ETV) is an effective treatment alternative for nucleos(t)ide-naive patients due to its low resistance rates and potent antiviral effects. Studies on treatment of HBV in Saudi Arabia are limited. We aimed to evaluate the clinical, biochemical and virological response to ETV therapy in NA-naïve patients vs. those that failed prior NA in treatment of chronic hepatitis B. Objective: To evaluate the clinical, biochemical and virological response to ETV therapy in NA-naïve patients compared to those that had failed prior NA in treatment of CHB. Method: A retrospective chart review was conducted for patients with hepatitis B who were seen at King Abdulaziz Medical City, Riyadh during 2008-2014. Comparison was made between patients treated with ETV who were NA-naive (group A) and those with prior NA-experienced (group B). Complete virological response (CVR) was defined as having HBV-DNA < 15 IU/ml, partial virological response (PVR) as 15-200 IU/ml and > 200 IU/ml for no virological response (NVR) after one year of therapy. Statistical significance was considered at p<0.05. Result: Overall, 155 patients were included (69 in group A and 86 in group B) with a mean age was 52.3±15.3 years, and 78% were males. In group A, 85%, 13% and 2% achieved Cr, PVR and NR at 48 weeks of therapy vs. 60%, 26% and 14% in group B, respectively (p = 0.013). HBsAg sero-conversion was achieved in 17% in group A vs. 9% in group B (p = 0.038). HBeAg sero- conversion was 27% in group A and 30% in group B (p = 0.84) while ALT normalization was 100% in group A vs. 91% in group B (p = 0.53). Discussion: The results of our study were consistent with the global studies. However, we found that the rate of HBsAg sero-conversion (17%) in Saudi population is higher than global rate (6%). Conclusion: Entecavir therapy in chronic HBV results in high virological response, with concomitant biochemical improvements. Higher rates of HBsAg seroconversions are achieved with ETV therapy in NA-naïve patients as compared to prior NA failures.
Allogeneic stem cell transplantation (SCT) is an important modality of therapy for children with cancer and inherited disorders such as thalassemia. In this study, we reviewed the allogeneic SCT experience of the Pediatric SCT program at King Abdullah Specialized Children’s Hospital in Riyadh from January 2010 - December 2014. The following data were collected through chart reviews including patients’ demographics (age and gender), diagnosis, degree of HLA matching, stem cell source, conditioning regimens, and treatment outcomes. A total of 51 patients were transplanted during this period, of those 27 were males and 24 females. The median age at transplantation was 5.1 (range, 0.2–13.4) years. A total of 45 patients were transplanted using matched related donors and 6 were transplant from unrelated cord blood transplant (UCBT). All patients engrafted successfully except 2 patients who had UCBT. The median time for neutrophils engraftment was 24 days (range, 9-58 days) and for platelets engraftment 25 days (range, 8-73). Transplant related mortality at day 100 was 5%. The frequency of acute GVHD grade (II-IV) was 7.8% and for grade (III-IV) was 2%. There was only 9% with chronic GVHD. The 1-year and 2-year event free survival was 83.7%. In addition, the 1-year overall survival was 89.4% and the 2-year overall survival was 86.7%. The events were two graft failure with the cord transplants and two late graft failure in match related (bone marrow), three of those underwent successful second transplant. The causes of death were pulmonary toxicity in 2 patients, sever GVHD in 1 patient and leukemia relapses in 2 patients. We conclude that the survival outcome of pediatric allogeneic SCT at KASCH is comparable to those reported from other centers. We observed low rate of GVHD in our study, which is expected given that majority of cases were transplanted from matched related donors.
An in Vitro Model of Flexor Profundus Tendon Repair in Young Children: Comparing the Tensile Strengths of Two Figure of Eight Sutures to Two Figure of Eight with Simple Locking Sutures at the Corners

Presenter:
Mohammed Talal Alzahrani

Authors:
Mohammed T. Alzahrani, Turki A. Althunayan, Ahmad A. Hakeem, Fahad M. Alzahrani, Mohammad M. Al-Qattan

Introduction and background: In young children, the size of flexor profundus tendon in zone II is 3-4 mm in diameter. Our review of the literature did not reveal any biomechanical studies of the tensile strength of repairs in those small pediatric tendons. Objective: To compare the tensile strength of two suture techniques in hind sheep flexor profundus tendons with a diameter of 3-4 mm. Methods: Twenty tendons were used and were divided in two groups. In group I (n=10 tendons), the repair was done using two figure of eight sutures utilizing 4/0 prolene sutures. In group II (n=10 tendons), the repair was similar to group I but with the addition of 4 simple locking sutures at the four corners of the repair. Both the 2-mm gap force and the breaking strength were compared between the two repair techniques. Results: The addition of the locking sutures significantly (p<0.05) increased both the gap force and the breaking strength. Discussion: In the current study, we measured the gap and the breaking forces. Excessive gapping allows excessive scarring, and affects the clinical outcome of flexor tendon repair. Our study showed that the gap and breaking forces of the locking technique is significantly higher than the non-locking technique. Conclusion: The addition of locking sutures to the figure of eight sutures in the repair of flexor tendons in zone II in young children will significantly increase the strength of the repair and this has clinical implications.
Public Awareness of Colorectal Cancer: a cross sectional study in Qassim region, Saudi Arabia

Presenter:
Saleh Khalid Alqaryan

Authors:
Saleh K. Alqaryan, Majed T. Alharbi, Fadi O. Alharbi, Soliman A. Alnasser
Moayad S. Alqazlan, Tamim R. Alqazlan

Introduction & Background: In Saudi Arabia, Colorectal cancer (CRC) is ranked first in incidence among males and only third among females. Objective: We aim to assess knowledge and awareness of CRC in term of signs, symptoms, risk factors and diagnosis in Qassim region, Saudi Arabia. Methods: This is a cross-sectional study using Bowel/Colorectal Cancer Awareness Measure questionnaire. The questionnaire includes both open-ended (recall) and closed-ended (recognized) question to assess participant’s knowledge about CRC. Six trained interviewers carried face-to-face interviews with the participants in randomly chosen shopping malls. Results were analyzed by SPSS. Results: Overall younger respondents recalled the greatest numbers of signs and risk factors. Older respondents were most likely to recognize risk factors. Participants with a history of cancer themselves or their relatives were more likely to recall signs and risk factors, but there was no difference compared to those with no history in the number recognized. The most recognized sign was a lump in the abdomen. Respondents with a history of cancer indicated they would be slower to seek help than those without (P=.001). Discussion: The ignorance of CRC symptoms in our population can explain the delayed presentation observed in CRC patients. Awareness of signs and symptoms of CRC and risk factors was poor overall with respondents in this population survey recalling, on average, about one CRC sign recalled and able to recognize three or more signs. Other studies found the same observation. Surprisingly, only a small fraction of respondents (24.5%) recognized a family history of CRC as a risk factor. Different studies locally and worldwide showed more awareness regarding family history association with CRC. Conclusion: There remains poverty of knowledge about CRC signs, symptoms and risk factors in Saudi Arabia. Health care professionals need to take the initiative in educating the public about CRC.
Predictors of Job Satisfaction among the Dental Workforce in NGHA, Riyadh, Saudi Arabia

Presenter:
Nasser Khaled Alghofaili

Authors:
Abdulmajed Alturki, Ahmed Alhomaied, Faisal Alsaneeq, Faris Aljaghwani, Mohammed Alhamdan, and Nasser Alghofaili, Ashraf Elmetwally

Introduction & Background: The ongoing demand around the world for dental care has increased; as a result, the pressure on the dental healthcare workers to provide high-quality dental services is rising. The constant work pressure has been associated with factors leading to a low level of job satisfaction among the dental healthcare workers. Dentistry is identified as one of the most stressful professions, which affects the level of job satisfaction among the dental healthcare workers and therefore the quality of services provided. Objective: To identify the predictors and assess the level of job satisfaction among the dental workforce in the National Guard Health Affairs (NGHA) medical complex in Saudi Arabia. Method: A cross-sectional survey was performed among the dental workforce practicing in NGHA, Riyadh, Saudi Arabia. A self-administered questionnaire consisting of 37 items was distributed in all dental centers in NGHA in Riyadh. Result: The mean job satisfaction score of the total population was 65.7 out 112 (2.9 out of 5). Of the four domains pertaining to job satisfaction, the highest mean score was obtained for quality of service (4 out of 5), and the lowest satisfaction score was for income and job security (2.5 out of 5). Discussion: Interestingly, this is the first study conducted in the Middle East inquiring about job satisfaction among dentists and dental auxiliaries. Results of this study were mostly consistent with previous studies. Conclusion: Professional and personal life, income and job security, and quality of services were identified as important factors that affect the level of job satisfaction. Dentists were reported to be more satisfied with their income than dental auxiliaries. The dental workforce practicing in NGHA, Riyadh, Saudi Arabia, expressed a low level of job satisfaction.
Retrospective Analysis for all Stage IV Colorectal Cancer Patients Treated in King Abdul Aziz Medical City- Riyadh (2006-2014)

Presenter:
Hala Marzoug Al-Marzoug

Authors:
Hala Al-Marzoug, Alanoud Al-Marzoug, Sara Al-Qubaiban, Ashwaq Al-Olayan

Background: Colorectal cancer (CRC) is considered the first most common cancer in men and the second among women in Saudi Arabia. Colon and rectal cancer are often referred to as colorectal cancer. Are they the same disease?. The aim of this study is to compare between metastasis colon cancer and metastasis rectal cancer in term of characteristics and prognosis. Method: Retrospective cohort study was conducted on 245 adenocarcinoma stage IV CRC patients treated at King Abdulaziz Medical city- Riyadh. Charts were reviewed from 2006-2014. Demographic, clinical and treatment characteristics analyzed by univariate analysis. Bivariate analysis was used to determine the differences between colon and rectal cancer. The prognostic factors were assessed by multivariate analysis, utilizing SPSS statistical software. Result: Of 245 CRC patients diagnosed with stage IV, 131(53.5%) were males and 114(46.5%) were females. 185(75.5%) patients had colon cancer and 60(24.5%) patients had rectal cancer. The mean age of patients at the time of diagnosis was 59 year. Comparing colon cancer and rectal cancer, there was a significant difference between the two groups in regards to K-RAS status(P=0.009), metastatic site (liver P=0.03, Lung P=0.02, peritoneum P=0.014), number of metastasis(P=0.005) and type of treatment(P=0.000). In survival analysis, type of treatment and number of metastasis were statistically significant in both groups. Discussion: Data from previous studies showed a clear controversy in regard the survival between colon and rectum cancer. One study showed that right side colon had worse prognosis than left side with no clear causes. Another report from Iran investigated 1219 patients, they found that colon cancer had better survival than rectal cancer. Conclusion: Our findings support that CRC is not a single entity. There are differences between both groups in term of prognostic factors, clinical and treatment characteristics but there is no difference between them in term of survival.
Prevalence and Characteristics of Mitral Valve Prolapse in Adult Echocardiography Population in King Abdul-Aziz Medical City over a 10 Year Period

Presenter:
Yara Osama M. Alkhodair

Authors:
Alanoud Khalid Al-Kahtani
Dr. Mohammad Gormallah Al-Ghamdi

Introduction: Mitral Valve Prolapse (MVP) is a well-recognized pathological entity that is associated with significant morbidity. Prevalence, pathological characteristics and clinical outcome of MVP in Saudi Arabia have not been estimated. Aim: To determine the prevalence, echocardiographic characteristics of MVP among adult patients who underwent echocardiographic evaluation over a 10-year period. Methods: Retrospective review of consecutive echocardiography-confirmed MVP cases. Study was conducted in King Abdul-Aziz Cardiac Center, Riyadh and included echo studies done between January 2002 and December 2011. Echo parameters were collected from Xcelera database. All nationals ≥ 14 y of age with MVP were included. Mitral valve diseases due to non-myxomatous prolapse were excluded. Results: We identified 572 patients with MVP. Only 232 were to be found to have classical MVP, representing 0.33% of patients who underwent echocardiographic evaluation during study period. Average age was 40 ± 18, and 65% were males. Majority of patients (59%) had moderate to severe MVP. Mitral regurgitation was found to be moderate to severe in 55% of patients and chordal rupture was noted in 18.5%. Dilated left atrium was present in 40% and dilated left ventricle in 28%. The clinical outcomes of MVP show that more than one third of patients underwent surgical intervention, mostly in the form of mitral valve repair. Discussion & Conclusion: Prevalence of MVP at a tertiary care center in Saudi Arabia is 0.33% In contrast to the reported international figure of 1-3%. In contrary to published literature MVP at our tertiary care center seems to be more common in males and diagnosed at a later age. In addition, most of our patients had moderate to severe mitral regurgitation.
Implementation of Simulation Based Curriculum for Emergency Medical Service students of King Saud bin Abdul-Aziz University for Health Sciences: Let’s move forward

Presenter:
Mohammad Awad Allah M. Al-Mutiri

Authors:
Abdullah Al Qahtani, Mohammed Al Mutairi, Abdullah Al Mutrafy, Nesrin Al Harthy, Nawfal Abdullah Al Jerian, Farhan Al Enezi, Winnie Philip, Manjush Karthika

Introduction & Background: The concept of simulation based learning has been widely used since its inception in medical schools and was found to be effective in improving clinical skills and learning process. Objective: To evaluate the experience of emergency medical service (EMS) students of King Saud bin Abdulaziz University for Health Sciences (KSAU-HS) with the integration and implementation of a simulation-based curriculum. Method: A questionnaire of 29 items with 5 points likert scale was used to evaluate student’s satisfaction about integration of simulation in their curriculum with regard to four domains: simulation sessions, impact on learner, content/instructions and overall experience. Result: During the academic year 2013-2014, a total of 41 surveys were completed by 3rd year EMS students. 59% of the students attended more than 5 simulation sessions, 10% attended 3 to 4 simulations and remaining 31% attended 1 to 2 sessions. The highest score was for the overall experience as they reported positive learning experience and they would like to do more simulation modules. Students strongly believes that simulation based learning will decrease their anxiety, improve their confidence in dealing with specific scenarios and team dynamics helped to better understand communication issues during resuscitation. Discussion: Simulation plays a vital role in improving the standards of medical schools. In this study, almost all the students had a favorable perception about simulation indicating a bright prospect for its acceptance everywhere. Conclusion: In conclusion, simulation based curriculum may offer many opportunities to decrease patient and learner related risks, improve competence and confidence level of the learner, ensure patient safety, and in the long run it may reduce health care related costs by a focused care model of approach.
Exploring the Impact of Using the Pharmacy Information System (PIS) on the Intended Pharmacists

Presenter:
Fawaz Qasem Al-Rabeeah

Authors:
Fawaz Qasem Al-Rabeeah

Introduction and background: The development of healthcare information and communication technology is expanding across all aspects of life. The health information technology (e.g. pharmacy information system (PIS) has a great impact in improving the safety, efficacy, and quality of care. However, to maximize the positive effects of PIS, it is important to assess its impact and effect on pharmacist workflow. This effect appears mainly in the communication and services outcomes. Additionally, PIS might be associated with changing in pharmacists’ attitudes, and intention to use it in future. Objective: This study is intended to explore the factors that impacted the pharmacist during the use of PIS. The PIS are designed to help pharmacists safely manage the medication process. However, to maximize the positive effects of the PIS, it is important to assess its impact on pharmacist workflow and medication management processes. Method: The study was conducted at the Pharmaceutical Care Department in the KAMC-Riyadh, and the data were collected through distributing a survey questionnaire to all of the inpatient pharmacist’s staff. Result: The first pertinent finding from the survey suggests that, in general, PIS users perceived their experience as favorable for their practice. That is, majority of the users who participated in this study tended to be strongly receptive of the technology and most of the items related to its functionality. Discussion: Several patterns emerged from the data analysis. The primary pertinent finding from the survey suggested that PIS users perceived their experience as favorable for their daily practice. Conclusion: The outcomes of this study are important because it identify potentially key factors that likely influence pharmacist’s personal intentions for using PIS. Additionally, majority of respondents described their experiences with PISs as positive, the advancement of the user experience with PISs will depend on reducing the rate of demotivated or “hassled” users.
Neurological Complications among Pediatric Post Liver Transplant in King Abdulaziz Medical City-Riyadh

Presenter:
Alanoud Marzoug Al-Marzoug

Authors:
Alanoud Al-Marzoug, Hala Al-Marzoug, Abdullah Al-Zaben, Ahmed ALrumayyan

Background: Liver transplantation (LT) is an effective treatment for children with liver disease. Post-operative Neurological complications (NCs) are common among LT recipients. The aim of this study is to identify the NCs as well as determine the predictors of these complications among pediatric post LT in King Abdulaziz Medical City – Riyadh. Methods: Case-control study was conducted on 54 pediatric patients who had LT aged ≤14 years old. Charts were reviewed from 2001 to 2014. Patients who had NCs post LT were identified as cases n=12 and who did not have NCs post LT were identified as controls n=42. Analysis was conducted using SAS version 9.2. Results: The mean patients’ age at the time of LT was (4.42 ± 0.52) year. Females were 28(51.85%) & males were 26(48.15%). The most common indication of LT was PFIC followed by biliary atresia. NCs after LT was seen in 12 patients, 4(33.33%) of them had neurological manifestations before LT. All patients who underwent LT were jaundiced 54(100%). There was significant difference between cases\controls in pre-LT hepatic encephalopathy p=0.008 and pre-LT neurological manifestations p=0.017. The most common NC post LT was seizures 9(52.94%) followed by encephalopathy 4(23.53%) & weakness 4(23.53%). There was significant difference between the two groups in pre and post-transplant INR p=0.003&p=0.015 respectively. None of the associated risk factors (patient’s age, gender, post-op Mg) were significant predictors for developing NCs after LT. Discussion: The incidence of NCs varies widely between studies and generally reported from 8-46%, while in other studies from 19-90%. In our series 12(22.2%) developed NCs, which is within the limits of previously reported rates in the published literature. Seizures were the most common NC in our study (52.94%) which is in line with the published studies. Conclusion: NCs are common among children after LT. Early detection and management are of extreme importance.
Effect of Social Media on Medical Students Learning Behavior

Presenter:
Amal Mohamed Al-Moamary

Authors:
Amal Al-Moamary, Prof. Mohi Eldin Magzoub, Dr. Moamud S. Mohamud, Saad Al-Moamary

Background: Liver transplantation (LT) is an effective treatment for children with liver disease.1 Post-operative Neurological complications (NCs) are common among LT recipients.3 The aim of this study is to identify the NCs as well as determine the predictors of these complications among pediatric post LT in King Abdulaziz Medical City – Riyadh. Methods: Case-control study was conducted on 54 pediatric patients who had LT aged ≤14 years old. Charts were reviewed from 2001 to 2014. Patients who had NCs post LT were identified as cases n=12 and who did not have NCs post LT were identified as controls n=42. Analysis was conducted using SAS version 9.2. Results: The mean patients’ age at the time of LT was (4.42 ± 0.52) year. Females were 28(51.85%) & males were 26(48.15%). The most common indication of LT was PFIC followed by biliary atresia. NCs after LT was seen in 12 patients, 4(33.33%) of them had neurological manifestations before LT. All patients who underwent LT were jaundiced 54(100%). There was significant difference between cases\controls in pre-LT hepatic encephalopathy p=0.008 and pre-LT neurological manifestations p=0.017. The most common NC post LT was seizures 9(52.94%) followed by encephalopathy 4(23.53%) & weakness 4(23.53%). There was significant difference between the two groups in pre and post-transplant INR p=0.003&p=0.015 respectively. None of the associated risk factors (patient’s age, gender, post-op Mg) were significant predictors for developing NCs after LT. Discussion: The incidence of NCs varies widely between studies and generally reported from 8-46%, while in other studies from19-90%. In our series 12(22.2%) developed NCs, which is within the limits of previously reported rates in the published literature. Seizures were the most common NC in our study (52.94%) which is in line with the published studies. Conclusion: NCs are common among children after LT. Early detection and management are of extreme importance.
Decidua Parietalis Mesenchymal Stem cells (DPMSCs) modulate expression of receptors on M1 macrophages and mediate their immune functions

Presenter:
Saud Saleem Alsarheed

Authors:
Saud Alsarheed, Seham Alharthy, Mohamad Abumaree

Introduction & Background: Mesenchymal stem cells (MSCs) are multipotent adult cells that are like fibroblasts, and are plastic-adherent. They have extensive self-renewal properties, can form fibroblast-like colonies, and have differentiation potential to mesenchymal lineage cells. For instance, osteocytes, adipocytes, and chondrocytes. In addition, they can also transdifferentiate into hepatocytes, neural cells, myocytes, cardiomyocytes, and insulin-producing cells. MSCs can be isolated and characterized from different sources such as bone marrow, liver, umbilical cord blood, and also from placenta. Based on their differentiation potential and immunomodulatory properties, MSCs have a cell-based therapeutic potential, particularly in regenerative medicine. Objective: In this study, we evaluated the ability of MSCs isolated from decidua parietalis part of human term placenta (DPMSCs) in altering the differentiation of human monocytes into macrophages. Method: We used granulocyte macrophage colony stimulating factor (GM-CSF) to enhance differentiation of monocytes into the M1 macrophages and co-cultured these cells in their early stages of macrophage differentiation with DPMSCs. We assessed the differentiation intensity by microscopic examination and through flow cytometry. Result: Co-culture of DPMSCs with monocytes stimulated to inflammatory M1 macrophages, induced morphological changes in macrophages. Expression of cell surface markers such as CD163, CD204, and CD206 was also altered. Discussion: Outcome from these studies will provide valuable insights into whether this modulation has a positive outcome during the course of stem cell transplantation. Conclusion: Our preliminary results show that DPMSCs induce significant morphological and phenotypical changes in macrophages. Further functional studies are currently going on.
A Comparison of Motor Vehicle Injuries and their Outcomes among Pediatrics before and after the Implementation of SAHER System at King Abdul-Aziz Medical City, Riyadh, Saudi Arabia

Presenter:
Norah Abdulrahman Almanna

Authors:
Alanoud Al-Marzoug1, Yara Al-Goraini1, Norah Al-Manna1, Nawfal Al-Jerian2, Nesrin Al-Harthy3

Introduction: Motor Vehicle Crashes (MVCs) are major causes of injuries and deaths in children worldwide. In Saudi Arabia, a traffic control system called “SAHER” has been implemented in 2009 as a preventive strategy. The study conducted to compare the type of motor vehicle injuries and their outcomes before and after the implementation of SAHER system at King Abdulaziz medical city (KAMC)-Riyadh. Method: Retrospective cross-sectional study involved 1374 pediatric patients aged ≥1-14 years who presented to the ER at KAMC from 2001-2014 with MVCs. A trauma database was used. Data analysis has been done using SPSS. Results: Of 1374 pediatric patients, 896 cases were before SAHER and 478 cases after SAHER. The mean age was 7.73 years. The majority of the subjects were males (74.8%). Total cases of MVC’s were 643(46.8%) and pedestrians were 731(53.2%). There was a significant association between the mechanism of injury and SAHER (p=0.001). There was a significant association between emergency length of stay, ICU length of stay and SAHER,(0.001)and(0.008) respectively. After SAHER, PTS showed that life threatening injuries were less, ISS showed that critical injuries were less, RTS showed decreased rates in all levels, GCS showed that those who have score of 3 and below were less along with death in hospital and death on arrival rate. Discussion and Conclusion: The male dominance noted and has been comparatively reported in multiple studies. Majority of presentations accounted most commonly to middle childhood children, which confirmed by a study in the US and Saudi Arabia. The frequencies of presentations after SAHER of middle childhood children were significantly decreased (40.1%) (P=0.001). The commonest type of injury is multiple injuries followed by lower limb fracture with the same findings reported from multiple studies. MVCs are common among Saudi population. We recommend increasing the public awareness about MVCs in Saudi Arabia and their complications.
Caffeine Consumption among Dental Students in Umm Al-Qura University

Presenter:
Abdulrahman Ateeq Almalki

Authors:
Abdulrahman Ateeq Almalki 1 Mansour Abdullah Alqarni2 Abdulwahed Mohamed Homsi3 Yousef Abdulfattah A Feda4 Mohsen Khaled Aljabri5

Background: Caffeine drinks are available at markets and shops on the university campus without regulation or proper education in use caffeine. The caffeine becomes a daily routine for dental students without attention for their side effect. Purpose of our study was to evaluate the awareness of dental students regarding caffeine drinks and their pattern and reason of energy drinks consumption. Methods: This was a cross sectional study conducted during the period of November - December 2014 at Umm Al-Qura University (UQU). A total number of 200 dental students in age group from 20-25 years old completed a questionnaire about caffeine consumption among dental students. Results: Out of the 200 participants, Caffeine drinks users were 80% (n=161) and non-users were 19.5% (n=39). With 60% (n=97) being males. Males consume significantly more caffeine drinks than females. The students consumed caffeine drinks to get social prestige and while (96.5) during exam period. Other reasons given include, feel alert (42%), just to reduce stress (60%), or deal with depression (15%). Conclusion: The prevalence of caffeine consumption among UQU dental students is high especially in exams period and social prestige. Sometimes they feel by tremor, anxiety, irritability and restlessness due to exposure to large dose from caffeine. We recommend creation of continued public health awareness about the appropriate use of caffeinated drinks, their potential benefits, side effects and correction of wrong perceptions. Further study to assess the educational level of awareness about the dangerous of side effect.
Perceived influential factors towards participation in undergraduate research activities among medical students at Alfaisal University—College of Medicine: A Saudi Arabian perspective

Presenter:
Syeda Ahmedunnessa Mina

Authors:
Syeda Mina, Sowshan Mostafa, Haneen Albarqawi, Asma Alnajjar, Akef Obeidat, Ahmed Abu-Zaid

Introduction: Engaging students in scholarly research activities and producing research-oriented medical workforces are essential demands. However, little is known about what factors influence medical students to undertake undergraduate research (UR) activities, particularly from developing countries. The aim of this study is to explore the perceived influential factors towards participation in UR activities among undergraduate medical students at Alfaisal University—College of Medicine, Saudi Arabia. Methods: The data was collected via an online, anonymous, self-rating survey assessing demographics (gender, year of study and GPA) and perceived motives towards engagement in UR activities. Data analysis was done using Chi-Squared and Two-tailed Mann–Whitney U Test. Results Two-hundred and eighteen students (n=218/302) participated in the study with an overall response rate of 72.2%. The relationships between participation in UR activities and male gender, increased number of years spent at medical college and higher GPA (>3.50/4.00) were directly proportional. Moreover, the top three influential factors were “interest to facilitate entry into competitive residency programs”, “to improve curriculum vitae”, and “to publish articles in peer-reviewed journals”. Discussion: Our results reasonably emulated other studies reported in literature. Generally, students demonstrated positive attitudes towards UR activities, especially, students with previous UR experiences were more likely to participate than students without previous UR experiences. Conclusion: Along with formal integration of UR into the curricula, it is critical to inspire students to attain positive attitudes towards scientific research by improving the “quality” of curricular UR content. Future studies include conducting multi-centric cross-sectional studies at various colleges in Saudi Arabia in order to provide a broader generalized perspective as well as to compare and contrast data across colleges.
Hemorrhagic Glioblastoma Multiform Prevalence, Predisposing Factors and Prognosis among Adult KFMC Patients.

Presenter:
Saad mohammed almaimouni

Authors:
Dr. Ahmed Lary, Dr. Ali balbaid, Saad Al-Maimouni, Rabea Qutub

Introduction: Gliomas are a collection of tumors arising from glial cells or their precursors within the central nervous system. Histopathologically, gliomas are divided into four grades; the most aggressive of these grades is grade 4 or Glioblastoma Multiform (GBM). Objective: -To determine prevalence of patients who are presented with intra cranial hemorrhage & non-hemorrhagic. -To evaluate prognosis of GBM among grade four patients. -To assess predisposing factors in GBM patients. Method: The data set used in this study involved 530 existing database. The inclusion criteria included any patients (age >18) diagnosed with glioblastoma. The exclusion criteria is patients who have any hemolytic disease. 89 patients with GBM, were identified, of which 26 patients presented with ICH. A retrospective medical record review will be performed from 2008 through 2013. Result: The non- hemorrhagic patient’s mean age 50.2 years, where the hemorrhagic patient’s mean age 62.8 years. The mean age difference between hemorrhagic & non was [P=0.047]. The chi-square test for association between gender & developing hemorrhage was not significant [p= 0.572]. The non- hemorrhagic patient’s mean survival time 2.5 year, where the hemorrhagic patient’s mean survival time 1.7 year. The patient who die during our study time was 71 patients [79.8%], & patients who still alive at the end time of our study was 18 patents [20.2%]. The mean survival time difference between hemorrhagic & non was [P=0.011]. Discussion: The median duration of patient’s survival is estimated to be between 12 &18 months with maximal treatment, but those without any intervention die soon after diagnosis. The prognosis for GBM worsens with increasing age in elderly patients. Non-Significant differences were noted between patients receiving radiotherapy with chemotherapy, radiotherapy or chemotherapy alone. Conclusion: The prevalence of hemorrhagic GBM in the study population 29.2%, where the non-hemorrhagic GBM account for 70.8%. Hemorrhagic GBM has worse prognosis (less survival time) than non-hemorrhagic GBM. The predisposing factors are increasing of the age, using anticoagulant agent & frontal loop location of the tumor.
Outcomes of Treating Acute Perforated Duodenal Ulcer in Saudi Arabia

Presenter:
Atheer Shabeeb Alotaibi

Authors:
Atheer Alotaibi, Laura Alolayan, Salwa Alrashed Alhumaid, Munira Alkhashan, Thuriya Alsumyya, Dr. Mohammed Alzahrani

Introduction & Background: Perforated duodenal ulcer (PDU) resulting from peptic ulcer disease usually requires emergency surgery. The management of PDU depends on either open repair or laparoscopic surgery. Surgical repair is considered effective and provides good prognosis of the disease when combined with eradication of H pylori and avoidance of risk factors like NSAIDs. Outcomes for treating PPU could result in septic, pulmonary and other complications. Objective: To look into the prevalence and outcomes of treating patients who presented with PDU over the last 15 years in King Abdulaziz Medical City, Riyadh, Saudi Arabia. Method: This retrospective observational study reviewed all PDU patients admitted to KAMC between 2000 and 2015. Result: The number of patients with PDU was found to be 50. We found that 74% were male and 26% were female. The mean age was 48 year old. 72% had chronic diseases. 28% & 10% were smokers & alcoholic respectively. 10% had history of Non-Steroidal-Anti-Inflammatory-Drugs use. 40% were diagnosed by CT-scan and 60% by chest-X-Ray. 94% went through either laparoscopic or laparotomy repair, 94% of which had post-operative antibiotic and proton-pump-inhibitor. Out of those operated, all had minimil bleeding, 4% had wound infection, 9% had anastomosis leak and 11% with abdominal abscess. One patient had a documentation of recurrence. Seven death cases were reported, 6 of which were post-operative. Cardiopulmonary-arrest was the main cause of mortality among our sample with one death case attributed to “PPU with other comorbidities”. Discussion & Conclusion: Fifty cases of PDU were reported at KAMC. However, lack of documentation may underestimate the true prevalence and outcomes of treating PPU. Thus, we recommend that a larger sample size in different centres be studied to further elaborate on the magnitude of this disease and its management.
KRAS Mutational Status and Its Clinical Implications in Saudi Colorectal Cancer Patients

Presenter:
Abdullah Saeed Alqahtani

Authors:
Abdullah Alqahtani, Omalkhair Abulkhair, Ahmed Gasmelseed, Ashwaq Al Olayan

Introduction & Background: Recent studies emphasize the role of KRAS gene mutation in contributing to the pathogenesis of colorectal cancer (CRC) as well as a prognostic marker for predicting tumor responsiveness in colorectal cancer patients. Earlier studies have reported the frequency of KRAS mutations in the range of 30 – 45%. Objective: Due to limited data are available about KRAS mutation and its clinical impact in CRC patients from Saudi Arabia, we sought to analyze the frequency of KRAS mutation and its clinicopathological features in Saudi CRC patients. Method: We retrospectively studied tumor samples of 221 Saudi CRC patients for KRAS mutation status, clinicopathological characteristics and clinical outcome. Result and Discussion: KRAS mutations were identified in 97/221 (45%) tumors. 82.5% of the mutations were in codon 12, most commonly p.G12A (39%) while codon 13 mutation (p.G13D) occurred only in 17.5% of tumors. All clinicopathological characteristics were tested as potential risk predictors for KRAS status. Female was found to be a potential risk factor. Comparing to male gender, female was posed a higher significant chance of mutant status (59%, P=0.027). KRAS mutations were more common in sigmoid location and associated significantly with stage IV tumors (P = 0.022). CRC patients with KRAS mutations showed reduced overall survival of 63.5% at 5 years compared with 73.5% without KRAS mutations (p = 0.0078). Conclusion: This retrospective study highlights the incidence of KRAS mutations among Saudi CRC patients with 45% especially at pG12A in codon 12. It is more frequently seen in sigmoid adenocarcinomas and stage IV tumors. Our study also significantly demonstrated the prognostic role of KRAS mutation to be associated with female gender as well as a shorter and poorer overall survival. This higher incidence could be attributed to ethnic differences and warrant further investigations to clarify the effect of other environmental and genetic factors.
Cardiac Lymphoma: Case Report and Review of Literature.

Presenter:

Emad Mowaffag Albayouk

Authors:

Dr. Ahmad Aljazeeri, Youssof Alrumayyan, Emad Albayouk

Introduction & Background: Primary cardiac lymphoma (PCL) is a rare extranodal lymphoma that involves the heart or the pericardium. The prevalence of primary cardiac tumors represents between 0.001% and 0.3%. Among those, only 1.3% are primary cardiac lymphomas. In this paper, we describe a case of cardiac lymphoma in a 26-year-old immunocompetent patient. Case Report: A 26 year old male was referred to our institution with shortness of breath, and significant weight loss for weeks. He was initially evaluated in a peripheral hospital where he was diagnosed with tuberculosis (TB) based on tissue diagnosis from an axillary lymph node. Anti TB medications were started and the patient was referred to KAMC. On arrival, the patient showed no signs of improvement, he continued to have shortness of breath. Clinical examination revealed pulsus paradoxus and muffled heart sounds. Echocardiography showed a large pericardial effusion with echo findings of tamponade, as well as a large mass in both atria. Subsequently, the patient had pericardiocentesis. Cardiac MRI was done, it showed large homogenous mass occupying the anterior and superior mediastinum and engulfing all great vessels. The mass was extending to both atria and filling most of the right atrium. Mass characteristics were highly suggestive of cardiac lymphoma. The patient was biopsied again, which confirmed the diagnosis of cardiac lymphoma. Therefore, the patient was started on a CHOP-R regimen. Discussion and conclusion: PCL is a rare, potentially curable disease. Most cases were reported in immunocompromised patients. Our case represents the 25th case in an immunocompetent patient. The pathology confirmed Hodgkin’s lymphoma unlike the majority of previous reported cases which were Non-Hodgkin’s lymphomas. Although tissue biopsy is the definitive diagnostic method, PCL has very characteristic MRI findings. MRI can characterize the tumor morphology, involvement of surrounding tissue and can guide biopsy.
The Effect of Breastfeeding on the Severity of Rotavirus Infection in Children Admitted with RV to KAMC, Riyadh, Saudi Arabia.

Presenter:
Haneen Mohamed AlTurki

Authors:
Haneen M. AlTurki, Hanan H. Balkhy

Introduction: Rotavirus is the leading cause of diarrhea in children <5 years of age and is responsible for 500,000 childhood deaths annually. Few studies examined the effect of breastfeeding on rotavirus infection and produced conflicting results. There is no information from Saudi Arabia to identify this relationship. Aim: This study aims to identify the effect of breastfeeding on the severity of rotavirus infection in children infected with this virus admitted to King Abdul-Aziz Medical City (KAMC), Riyadh, Saudi Arabia. Methods: This is a cross-sectional quantitative study that utilized the Infection Prevention & Control database, which was collected prospectively over two years (2009&2010). It included the epidemiological data of all children ≤5 years of age admitted to KAMC from the Emergency Department with gastroenteritis. Then, rotavirus cases were stratified into two groups: Breastfed & Non-Breastfed. The severity and complications of rotavirus were compared between the groups based on the length of stay in hospital, admission to ICU and death. Results: Among 886 patients with gastroenteritis, 299 patients were positive to Rotavirus (33.7%). There was no significant difference between the two groups in the characteristics that determine the severity of rotavirus infection, including length of stay in the hospital (2.75 vs. 3.09 P=0.768) and duration of vomiting in days (3.14 vs. 3.24, P=0.757). Conclusion: Although our study did not find an association between breastfeeding and the severity of rotavirus infection, it is recommended that a community-based study be conducted on a larger scale to allow for a fair representation of breastfeeding and to detect any association if really present.
Assessment the Quality of the Online Health Information Portals (in Languages other than Arabic or English) in Asian Countries

Presenter:
Asma Abdullah Al Ateeq

Authors:
Asma ALATEEQ, Dr. Khulud Al Kadi

Abstract. The Internet has been considerably used as an essential source for health information. A previous study conducted at KSAU-HS to assess the quality of online health information in Arabic language and resulted in establishing a comprehensive trusted health website in Arabic and English languages. It is called King Abdullah Arabic Health Encyclopedia (KAAHE) portal. This study is a continuation study aims to assess the quality of online health portals in languages spoken in Asian countries other than Arabic and English against HON standards and the results would be used in order to choose which languages to be added to KAAHE in order to widen its users group. This study is a quantitative cross-sectional prospective study. The criteria used to choose the languages for this study were the languages spoken in countries with the highest literacy and internet access rate in addition to highest population enumeration among Asian countries. Japan (Japanese language), South Korea (Korean language), Singapore (Chinese language) and Malaysia (Malay language) countries languages were chosen based on those criteria. The data collection methods were: Saudi embassy in the selected countries, the medical attaché and secretaries of those countries embassies in Saudi Arabia, and local Google search engine for each country. After the refining process on the gathered links, simple random sampling technique used to choose 10 portals for each language. The portals assessed in terms of meeting HON international standards. The result analyzed and shows variety quality level in meeting HON standards among the health portals. The assessment results show that Japanese health websites reach the highest compliance percentage among other languages’ health portals while Malaysian health websites were the lowest in reaching the compliance percentage against HON international standards.Keywords: Online health portals, health information, internet, HON standards, quality, Saudi Arabia, Japanese, Korean, Chinese, Malay.
Screening for low bone mineral density among attendants of a health campaign using calcaneal qualitative ultrasonography, Madinah, 2014.

Presenter:
Feras Fuad Almosailhy

Authors:
Feras Fuad AlMosailhy, Tasneem Saleh AlRuhili, Rawan Abdullah AlFouzan, Abrar Mohammed Hasan, Omar Abdullah Abduldaem, Khadijah Ahmad AlAmeen AlShangiti, Abdullah Ali Surrati

Introduction & Background: Osteoporosis is a major public health concern with increased morbidity and mortality. Objective: The present study was carried out to screen the (BMD) in different age groups of adults attending a health campaign. Method: During the “Your Heath Is Your Life 3” campaign that was lunched in Madinah, KSA, from the 24th of April 2014 to the 2nd of May 2014, a community based cross sectional study of BMD in adults was carried out in 336 adults using WHO T-scores utilizing (QUS) as a diagnostic tool. A detailed self-reported questionnaire was obtained including demographic, socioeconomic, lifestyle and medical condition data. For females, additional data were obtained including obstetric and gynecological histories, and sun exposure and protection behavioral data. BMI was calculated. Result: Screening retrieved 63 (18.8 %) adults with low T-Scores (14.9 % osteopenia and 3.9 % osteoporosis). Variables including known risk factors were equally distributed in both low and normal T-Score groups, except for male gender (57.1 % vs. 20.1 %); employment status (58.7 % vs 39.7 %), and exercise frequency (once (51.6 %) vs. more than three times (36.8 %) weekly) and duration (16.1 % vs. 25 % exercised for (45-60 minS.) which were significantly higher in the low T-Score group. Discussion: In this study, adults were screened irrespective to their age and this selection nullified or diluted most known major risk factors for osteoporosis. Evidence of the beneficial effects of exercise training on bone mass is strong. Effects depend on the exercise techniques as resistive exercises and weight-bearing exercises especially in young adults, and postmenopausal women. Conclusion: In a Saudi community, 18.8 % prevalence of low BMD was detected among adults. Low BMD was associated with male gender, employment, and exercise frequency and duration. Therefore, adults especially employed men, should be encouraged to exercise.
Title: Retinopathy of Prematurity (ROP) Prevalence and Risk Factors at King Abdulaziz Medical City (KAMC), Riyadh

Introduction: Retinopathy of prematurity (ROP) is an ocular disease that affects the retina of premature infants and may cause blindness unless treated appropriately. Objective: The aim of this project was to determine the prevalence of ROP in preterm infants in the NICU at KAMC-Riyadh, to identify its risk factors and its outcome. Methods: This was a retrospective cohort study of premature infants. Those infants were admitted to NICU at KAMC-Riyadh between January 2010 to December 2014. The data were assessed and analyzed using SPSS. Results: Five hundred and ninety three infants were included in this study. Out of those, 224 infants (37.8%) had ROP. The mean body weight of infants with ROP was 983g and the mean gestational age at birth was 27 weeks. A significant relationship with a p-value <0.05 has been found between the occurrence of ROP and small gestational age at birth, low birth weight, low APGAR score at 1 minute and long duration of O2 therapy. Based on charts review, none of those infants had blindness. Discussion: In our study, the percentage of patients with ROP is similar to the local studies. The occurrence of some risk factors for ROP like small gestational age at birth, low birth weight and long duration of receiving O2 therapy has been found to be significant among most of the studies including ours. The used criteria for ROP screening might need some modifications to involve outlier cases. Conclusions: The prevalence of ROP in our study falls in the range of the disease prevalence in the developing countries. Small gestational age at birth, low birth weight and long duration of O2 therapy were found to be strongly related to the development of ROP in preterm infant. requirement for renal replacement therapy were independent predictors of mortality.
Cross-Talk between Placenta Decidual Parietalis Mesenchymal Stem Cells (DPM-SCs) and Human Natural killer cells (NK cells)

Presenter:
Abdulmajeed Ahmed Aldosaimani

Authors:
Abdulmajeed Dosaimani, Eman Abduallah bahattab, Aeshah Salem Alsadun, Mohamed Abuma-reed

Introduction & Background: Placental Mesenchymal stem cells (MSCs) are both safe and easily accessible to be used as a therapy in an Allogeneic transplantation setting. Generally, Natural Killer Cells (NK cells) can lyse MSCs. However, our knowledge regarding the ability of NK cells to lyse mesenchymal stem cells isolated from human term placenta specifically from decidua parietalis (DPMSCs) is unknown. Therefore, we conducted this study to examine the effects of NK cells on DPMSCs. Objective: this study aims mainly to measure the efficacy of decidual parietalis MSCs (DPMSCs) in inhibiting IL-2 induced NK cells cytotoxicity. Method: 1.Isolation of NKs from healthy volunteers 2.Stimulation by IL-2 3.Culturing DPMSCs with increased concentrations of NK cells 4.Assess the changes by microscopic examination, flow cytometry, and other techniques. 5.Result: The results show that NK cells were able to lyse DPMSCs at 10NK:1 DPMSCs after 24 hours. Conclusion: •Our data suggest that DPMSCs are susceptible to NK cells lysis. •This may indicate that these stem cells exhibit their effect during the course of stem cell transplantation via a paracrine effect by the secretion of the soluble factors.
Caregivers Burden of Chronic Medical Illnesses in Elderly Patients

Presenter:
Qamar Sameer Khojah

Authors:
Hashim Balubiad, Qamar Khojah, Rawan AlDahash, Sara AlMedlej, Shoroug AlRumaihi, Alaa Althubaiti

Introduction & Background: This study addresses different aspects of burden (i.e. Subjective Burden (SB), Objective Burden (OB) and Stress Burden (StB)) placed on caregivers of chronic elderly patients. Method: A cross-sectional study was conducted on 150 adult caregivers of patients with chronic illnesses in three tertiary medical centers in Riyadh from January to March 2015. All caregivers from inpatient and outpatient settings, who fulfilled the inclusion criteria, were approached by consecutive sampling. Participants were interviewed using an Arabic version of the Montgomery Borgatta Burden Measure Scale. Result: Out of the 150 caregivers interviewed, there were 85 males and 65 females. The mean age was 35.4 years. The results showed that the SB, OB and StB were found to be mild in the sampled population (7.7±3.7, 14.2±3.4, and 9.05±4.2) respectively. The StB was found to be higher in females than in males (9.86±4.56 vs. 8.44±3.89 respectively, p=0.041). Furthermore, a difference was found in the nature of relationship between the patient and the caregiver (i.e. nurses, household staff, relatives); where nurses were found to have a greater SB compared to relatives (11.4±5.289 vs. 7.58±3.338 respectively, p=0.002). Analysis also showed the caregivers who were employed elsewhere had lower StB, and OB (p=0.004, and 0.034, respectively) compared to these who did not have any employment. No association was found between social status, education, duration of caregiving, caregiving hours and burden of caregiver. Conclusion: Caregivers of chronically ill patients experience a distinct level of burden while providing end-of-life care. Socio-demographic factors were predictors of the level of burden.
Perception and Acceptance of Senior Medical Students at King Abdulaziz University of the Use of Objective Structured Clinical Examination as a Tool of Assessment.

Presenter:
Abdulaziz Abdulkarem Hamad AlHoqail

Authors:
Khalid Saleh G Alghamdi, Bassel Hassan M Katib, Talal Al-Khatib

Introduction & Background: The faculty of Medicine at King Abdulaziz University in Saudi Arabia introduced the Objective Structured Clinical Examination (OSCE) as a tool of assessment for medical students in the last decade. In our study, we aimed to assess the perception and acceptance of an OSCE method and explored its strengths and weaknesses among senior medical students. In addition, we aimed to interpret rating of OSCE in relation to other assessment methods. Objective: Assess the perception and acceptance of an OSCE method and explored its strengths and weaknesses among senior medical students. Interpret rating of OSCE in relation to other assessment methods. Method: A cross-sectional survey using 46 items validated questionnaire. An electronic questioner was distributed through different methods which included Short Message Service, social media websites, and posters. The questionnaire contained various domains about students’ perception of OSCE validity and reliability, and rating of OSCE in relation to other assessment methods. Result: Among 246 students who responded to the survey, 52% of them denied that OSCE provided opportunity to learn real life scenarios. Interestingly, more than 80% of students showed concern about inter-evaluator and inter-patient variabilities as bias factors that could affect their scores. About 56% of students disagreed that time allocated per station was adequate. Discussion: Many studies found that students perceived the OSCE as a stressful method of assessment (Allen et al. 1998). The majority of students (86.3%) in our study showed the same perception. In comparison to other methods of assessment including MCQs and Clerkship, OSCE was the most stressful. Conclusion: Although OSCE exam is supposed to be standardized and fair to students, our survey raised concerns regarding the conduction of OSCE stations especially regarding time allocation per station and pre exam waiting time. Other concerns were inter-evaluator and inter-patient variability, which may affect students’ scores.
Assessing the Accessibility of Mosques in Riyadh Area for Wheelchair Users

Presenter:

Nasser Abdullah Ghasham

Authors:

Nasser Ghasham; Mohammad Alolayan; Bandar Alahmadi; Abdullah Alqarni

Introduction & Background: Prayer is a vital occupation for Muslims. Therefore, and from an occupational therapy perspective, accessibility to mosques is a vital aspect for Muslim wheelchair users to practice their prayers at mosques. Objective: The purpose of this study was to investigate the accessibility of mosques in Riyadh area for wheelchair users, are there any acts/rules from the Ministry of Islamic Affairs about mosques accessibility?, are available accessibility measures in the mosques fall within the universal standards for wheelchair users?. Method: A questionnaire study was conducted. Participants who met the inclusion criteria were asked to rate their level of agreement/disagreement on different aspects of mosques accessibility on the mosques they go to. They were asked questions about the accessibility of different mosques areas such as parking lots, bathrooms, main entrance and exits, the prayer area, the Wadoo’s area, etc. Result: A total of 48 Wheelchair users were participated in the study. Of them, 83% agreed and strongly agreed that they always need someone to propelling their WC. 56% disagreed and strongly disagreed that they were satisfied about mosque accessibility in general. Most participants (68%) disagreed and strongly disagreed that the Wadoo’ area was accessibly to them. Discussion: The majority of WC users were not satisfied about the accessibility in mosques in Riyadh City. There were few similar studies those were implemented in different countries such as Istanbul, Emirates and Indonesia. Conclusion: Although there were acts in the Kingdom that governs the accessibility in public places including mosques, this study revealed that those acts were not followed or implemented.
Workplace Violence among EMS workers Riyadh, Saudi Arabia

Presenter:
Abdullah Ali Alsahli

Authors:
Abdullah Alsahli, Ahmed Alshehri, Abdullah Almatrafi, Mohammed Al Mutairi, Maha Abdullah, Ahmed Mahah, Nesrin Alharthy, Abdulrahman Alswailem

Introduction: Globally workplace violence towards health care provider is of a concern hazard. The impact on health care provider from workplace violence is huge. Objective: To evaluate the prevalence of workplace violence (physical and verbal) among EMS workers in Riyadh. Methods: Cross-sectional study design using self-administers confidential survey disturbed to all emergency medical personal. Well-structured and validated questionnaire adopted from the World Health Organization on workplace violence were used for the study. Results: Preliminary analysis the study is in on the data collection phase with target population of 370 EMS personal in Riyadh city. Out of 34 male EMS workers 29.4% (10) are in the age group 25-29 years with 50% (17) belonging to EMT department. A work experience of 6-10 years was reported in 29.4% (10) cases. Workplace violence was experienced by 85.3% (29) workers. The most prevalent form of violence was verbal abuse (27, 79.4%) followed by physical abuse (9, 26.5%) and 17.6% (6) of the workers had both verbal and physical abuse. 70 % of EMS personal is aware about existing procedure for violence reporting system but only 47% know to use the reporting system. Multivariate analysis for association across the study variable (age, years of experience and EMS professional group) was not statistically significant at this stage. Discussion: The preliminary finding of the study demonstrates prevalent workplace violence among the EMS worker predominantly in the form of verbal abuse. The rate of workplace violence among EMS personal is comparable with the international figures. Less than half of EMS personal demonstrates knowledge on the process of violence reporting. Conclusion: Workplace violence defines as violence or the threat of violence against workers that ranges from threats and verbal abuse to physical assault and homicide. It is considered as one of the leading causes of job-related death. Studies reported a wide range of psychosocial distress, burnout and low perception of safety.

Presenter:  
Ahmad Fayyad Alqadheb

Authors:  
Ahmad FA. Alqadheb, Zaid MU. Alsharif, Abdullah MH. Alghamdi, Ahmed KH. Alhelaili, Raed AB. Abualaadel

Background: There is limited data on the epidemiology of atopic dermatitis in Jeddah (Saudi Arabia). As atopic dermatitis is one of the major health problems worldwide among children. Aims: This study estimates the prevalence and describes the pattern of atopic dermatitis among children in Jeddah, Saudi Arabia. Material and Methods: A cross-sectional study was done where one thousand questionnaires were distributed randomly in selected malls and schools to survey a representative sample from neonate to 15-year-old children in Jeddah city regarding history of atopic dermatitis. A response rate of 93.6% has been achieved. Results: Among (n = 936) children, prevalence of atopic dermatitis was 21.6% (24.2% among males and 20.6% among females, p=0.243). The commonest reported manifestation was itchy skin during the last 12 months (79.2%), followed by atopic dermatitis (60.4%). Itching skin disturbed sleep among 16.7% of males compared to 30.3% of females, p=0.044. Regarding age at onset, among more than one-third of females (37.5%) compared to 29.2% of males, skin itching or atopic eczema began at age of two years or less. This difference was borderline statistically significant, p=0.056. The antecubital region was the most involved area with a (28.7%) of the cases followed by the neck (25.7%), popliteal region (24.8%), and ankle (23.3%). Eye involvement was reported by 16.3% of the participants. The difference between male and female patients in this regard was not statistically significant, p=0.459. Conclusion: Symptoms of atopic dermatitis are common in Jeddah city, Saudi Arabia. Antecubital regions (28.7%) was the highest affected region. We suggest further studies to comparing data.
Promotion of Knowledge, Attitude and Practice towards MERS-CoV among Health Care Workers in Makkah Al-Mukaramh (an Intervention Study)

Presenter:
Mohammed Asad Alouq

Authors:
Mohammad M. Alkot, Mahmoud A. Shakuri, Mohammed A. Alouq and Mohanna S. Subahi

Introduction & Background: Sudia Arabia had a higher number of MERS-CoV (CORONA) in Eastern Mediterranean Region. Satisfactory knowledge, positive attitude and healthful practice of health care workers regarding MERS-CoV are a cornerstone in prevention of virus spread and disease outbreak. Objective: The objectives were to assess and improve knowledge, attitude and practice (KAP) of health care workers towards MERS-CoV. Method: The study was an interventional prospective study that was conducted during the year 2015 on a randomly selected 398 health care workers in primary health care centers of Makkah Al-Mukaramh, KSA. The participants were interviewed and invited after their consent to fill a pre-designed closed-ended Arabic questionnaire before and 3 months after implementation of a health education program. Result: The level of satisfactory knowledge, positive attitude and good practice of studied health care workers were significantly improved after implementation of the program as it increased from 43.3%, 45% and 57.4% before intervention to 67.9%, 63.8% and 64.8% after intervention respectively (P< 0.001). Logistic regression analysis showed that, higher age, previous training and experience were associated with higher scores of knowledge (Odds Ratio, 0.70, 0.61 and 0.71 respectively). Discussion: Unfortunately there are no similar interventional studies regarding knowledge, attitude and practice (KAP) of the health care workers (HCW’s) toward MERS-CoV infection. According to this study the interventional program lead to significant knowledge improvement, positive attitude transformation and better practice. This results agreed with that of a survey of 103 residents exposed to an educational program for Hepatitis B which showed a significant increase in the immediate post-intervention knowledge scores from a mean of 29% at baseline to 65% (P < 0.001) 6 months post-intervention but in comparison to the current study no significant differences were observed regarding the participants’ skills which may be attributed to the weak structure of their program. Conclusion: The results reflected the importance of health education as a cornerstone element in improving KAP towards MERS-CoV infection preventing the virus spread and disease outbreak.
Determination of the Frequency of the Most Immunogenic Rhesus Antigens among Saudi Population

Presenter:

Faris Saeed Alqahtani

Authors:

Dr. Mohieldin Elsayid, Mr. Faisal Alsaqri, Alqarni Abdulaziz, Faris Alqahtani

Background: The Rhesus (Rh) blood group system is one of the most polymorphic and immunogenic systems known in humans, because of its immunogenicity along with ABO grouping, RhD antigen testing was made mandatory before issuing a compatible blood. Presently, there are five major antigens i.e. D, C, E, c, and e in Rh blood group system. Aims: The aim of this study is to provide essential data about the distribution of the major Rh antigens and the most common phenotype among the Saudi population. Methodology: This is a retrospective study to evaluate the Rh grouping and Rh sub-groups performed among some donors who donated blood or blood products at department of donation center at King Abdulaziz Medical City Riyadh, Saudi Arabia from 1st January 2014 to 31th December 2014. Sample size included four hundred donors. All donors are males and their ages are above 18 years Results: The incidence of RhD was 84.8% and only 15.2% samples were negative for D antigen. The Incidence of other Rh antigens C, E, c and e were 62.3%, 23.5%, 74.3% and 95.0% respectively. The most common phenotype among RhD positive donors was DCcee (28.2%) and among RhD negative donors was dccee (13.8%). However two donors (0.5%) were negative for antithetical antigens C and c. Conclusion: This study shows that there is a wide racial and geographical variation in the distribution of Rh antigens and phenotypes among study participants. The Rh blood group system has a vital role in population genetic study and in resolving medical legal issues and more importantly in transfusion medicine practice.
Antimicrobial susceptibility patterns of ESBL E. coli isolated from community and hospital acquired urinary tract infections in a tertiary hospital in Riyadh

Presenter:
Lenah Khalid Al Fadhil

Authors:
Najwa Al Mously , MD,MSc,PhD,PG CertMed, Lenah Al Fadhil,MBBS, Ohoud Al Arfaj, PharmD, Shazia Mukddam

Introduction & Background: Increasing resistance of extended-spectrum β-lactamases producing bacteria (ESBL) is an important challenge for clinicians. Objective: Monitor the antibiotic susceptibility pattern of community and hospital acquired urinary tract infections caused by ESBL E. coli. Method: This is a retrospective observational study that was conducted at a tertiary hospital in Riyadh. Results of urine culture with E. coli and their bacterial antimicrobial susceptibility were collected from patients’ records for the years of 2011 and 2012. When there is bacterial resistance to three groups of antibiotics, a multi drug resistant (MDR) pattern is considered. Result: Of 3967 patients with E. coli urinary tract infections, 1086 (27.4%) of patients had ESBL E. coli. Mean age of the study population by year was 39.1 (±28.8), 67.5% were females, and 32% were pediatric age group. The percentage of hospital acquired ESBL E. coli was 64.5%, while in outpatients was 35.5%. Overall, (75.1%) of ESBL E. coli were resistant to trimethoprim/sulfamethaxozole, (69.8%) for ciprofloxacin, and (40%) to gentamicin. However, high sensitivity to imipenem and meropenem was reported (99.8% each). Out of all identified ESBL E. coli, MDR strains were identified in 137 (46%) and 161 (54%) isolates during the years 2011 and 2012, respectively. Discussion: ESBL-producing urinary pathogens including E. coli appear to show more antimicrobial drug resistance to multiple drugs than ESBL negative strains and consequently reduces the therapeutic choices of the proper drugs available. Conclusion: This study highlights the source and current antimicrobial susceptibility pattern of ESBL E. coli. Since bacterial multidrug resistance is an increasingly existing problem, periodical monitoring of antimicrobial susceptibility, rotating the use of the effective antimicrobial drugs, and research for finding novel drugs and their rational use should be considered.
Satisfaction, Awareness and Attitude towards Dental Appearance among Senior High School Female Students in Riyadh, Saudi Arabia

Presenter:
Reem sami alwakeel

Authors:
Waad Al-Debasi, Lana Alaskar, Haifa Alturki, Amal Almutaire, Alanoud Alajmi, Reem Al-Wakeel, Dr. Abeer Alsubait

Introduction and aim: Females are more conscious towards the overall aesthetic of their teeth, and it is important to detect the level of awareness and attitude at a younger age. The aim of this study is to assess the level of satisfaction, awareness, and attitude towards the appearance of teeth among senior high school female students in Riyadh. Material and method: The sample comprises 501 senior high secondary female students from three private and three public schools in Riyadh, Saudi Arabia. The study involved a questionnaire that consisted of 33 questions concerning socio-demographic factors and questions regarding dental satisfaction, awareness and dental attitude towards the appearance of teeth. Data analysis was carried out using SPSS program. Results: More than 70% of students considered their teeth very good to excellent, and only 3% considered their teeth as bad. Similarly, only 4% of students hide their teeth while smiling. Upon calculation of the overall percentage of satisfaction, attitude and awareness, 83% were satisfied with their dental appearance, 82% had good awareness, and 42% had positive attitude. Among different demographic variables, mothers’ level of education and income were significantly related to the awareness level. Conclusion: Most of the Saudi female high school students in Riyadh were satisfied with their dental appearance as well as have positive awareness. Positive attitude toward having good teeth was found in only half of the students.
Clinical Outcome of ARDS Patients in King Abdulaziz Medical City.

Presenter:
Abdulkhaliq Munawir J. Alanazi

Authors:
Wael Abdullah O. Almutiri, Farhan Alenezi, Abdullah Almutrufy, Mohammed Almutairi, Salem Alqahtani, Sreekanth Komath Mohan, Winnie Philip, Manjush Karthika

Introduction & Background: Acute respiratory distress syndrome (ARDS) is described as non-cardiogenic pulmonary edema due to the increased permeability of pulmonary capillary endothelial cells and alveolar epithelial cells, resulting in severe refractory hypoxemia. Objective: To analyze the clinical outcome of ARDS patients in King Abdulaziz Medical City. Method: This was a chart review and the files of all ARDS patients admitted during 2013-2014 (2 years) duration were collected from the medical record department and required data was collected. Result: Etiology of ARDS showed 45.2% of pulmonary and 54.8% of extra-pulmonary causes. 85.7% of the patients required mechanical ventilation for 2 weeks, and the remaining 14.3% required for more than 2 weeks. High frequency ventilation was used for 4 patients (9.5%) and inhaled nitric oxide for 7 patients (16.7%). Majority of the lung protective strategy was on volume control ventilation (n=34, 81%). Lung recruitment was done in 8 patients (19%). Tracheostomy was done in 10 subjects (23.8%) and with hospital outcome, it was found to be insignificant by chi-square analysis (p>0.05). The ICU survival was 47.6% (n=20) and hospital survival was 40.5% (n=17). Discussion: ARDS-Network clinical trials, demonstrated a decline of 35% mortality to 26% in 10 years, whereas our review has shown a mortality of 47% in 2 years duration. In addition to issues with gaseous exchange, ARDS patients frequently have infectious insults and cardiovascular failure and the cause of death is mainly infectious in nature and not just due to respiratory failure. Conclusion: ARDS can be described as a deadly version of respiratory failure with long term consequences in patient survivors and their families. Early recognition of risk factors and the avoidance of aggravating factors during the patient’s initial presentation may help to decrease the worsening of scenario.
Effect of Vitamin D Deficiency on Patients with Diabetic Retinopathy Regarding Severity and Gender.

Presenter:
Ohoud homod almutiri

Authors:
Dr Moutaz GUMA, Amjaad ALMOHAWIS, Ahoud ALMUTAIRI, Ghada ALDURAYE

Introduction: The pathogenesis of Diabetic Retinopathy revolves around abnormal angiogenesis, and one of the functions of vitamin D is inhibition of abnormal angiogenesis. Therefore, establishing an association could help in early detection and treatment of diabetic retinopathy. Methods: This’s an observational retrospective cross-sectional study conducted in KAMC, ophthalmology department, Riyadh, KSA. Subjects were randomly selected 159 Saudi diabetic patients with DRP of both genders and aged between 30 - 70 years old. The data was collected: laboratory studies (vitamin D serum level {nmol/L}), Age, gender, and MRN. The diagnosis and disease stage were retrieved from medical files. The Chi-square test and a multinomial logistics regression model was used to identify if vitamin D deficiency is a predictor of RP progression. A P-value of ≤ 0.05 and 5% margin of error was set. Results: A multinomial logistics regression model was used. Table (1) shows the comparison between DRP stages and vitamin D cut-off point (less than 50: deficiency, more than 50: optimal). The test revealed that the probability of the model chi-square was more than the level of significance (p<0.05). So, There is no significant relationship between DRP level and vitamin D. There’s no statistically significant relationship between DRP and gender (p=0.110). Discussion &Conclusion: Our study demonstrated an association but failed to find a significant relationship between vitamin D serum levels and DRP severity. By association, we mean that the less the vitamin D serum levels the more severe the retinal damage (Table 1). However, because this is a cross-sectional study we cannot assume a causal relationship between VDD and DRP. The failed attempt to establish a significant relationship might be attributed to the study design and small sample size. We recommend experimental researches (randomized controlled trials) that can demonstrate if vitamin D supplementations can prevent the progress of DRP.
Introduction: Pre-anesthesia evaluation is the process of clinical assessment that precedes the delivery of anesthesia care for surgical and non-surgical procedures. Pre-anesthesia evaluations are performed by using multiple resources of information that include medical history, patient interview, physical examination of the patient to clarify if there is any anesthesia risk to the patient. The pre-anesthesia evaluation is done in the pre-anesthesia clinic for day surgery patients. Paper based forms have been used widely to document patient health information with hospitals all over the world converting to electronic patient files. Objective: The aim of the study is to compare the quality of paper-based forms to electronic forms for pre-anesthesia. Our secondary objective is to assess the satisfaction of anesthetists with the electronic based pre-anesthesia form. Method: The study was conducted at KAMC-RD. All anesthetists working in the pre-anesthesia clinic were included in the study. The research was Quasi-Experimental Study Pre-posttest design study without a control group. The intervention was converting the paper-based form into an electronic form then measuring the quality of each type of forms for missed data, errors, and unreadable data. Also, anesthetist satisfaction with the electronic pre-anesthesia form was measured using a questionnaire. Result: The results showed major differences in the quality of pre-anesthesia paper based vs. electronic forms. The electronic form shows higher quality in all assessment categories (missed data, errors, and unreadable data) with a significant value, $X^2 (2, \ N = 500) = 171.64, p<0.001$. The satisfaction survey showed 81.65% satisfaction for the use of the electronic pre-anesthesia form for all the questions. Conclusion: Our study demonstrates that electronic pre-anesthesia form has better data quality and will improve the satisfaction of anesthetists. The electronic form can be used for data mining and help anesthetist by adding decision support systems to the form in the near future.
Sirolimus for Treatment of Kaposiform Hemangioendothelioma Associated with Kasabach–Merritt Phenomenon

Presenter:
Nuha Abdullah Alfurayh

Authors:
Nuha A. Alfurayh, Alaa M. Alaqeel, Alanoud A. Alhedyani, Saad M. Alajlan.

Abstract: Kaposiform hemangioendothelioma (KHE) is a very rare locally aggressive vascular neoplasm which is commonly associated with Kasabach–Merritt phenomenon (KMP); a rare life-threatening disease. We present for the first time in the middle east a case of a 3 months old female with KHE involving the right side of the face almost obscuring the right eye, with extension to upper chest and associated with life threatening KMP successfully treated by Sirolimus. Our patient appeared to be in a serious condition and near death after having failed using a number of treatment modalities; steroids, vincristine, propranolol and interferon. Sirolimus was given to our patient and has shown to be safe and efficacious with temporary and acceptable side effects. Initial dosing was 0.8 mg/m2 per dose, administered twice daily at approximately 12-hours intervals. The lesions shrank and the platelet count improved and remained normal. The goal of this study is to encourage development of further multicenter prospective trials to determine the effectiveness of different therapeutic agents to reach proper guidelines for treating patients with potentially life-threatening KHE.
ASSESSMENT OF MEDICAL STUDENTS’ AWARENESS OF RADIATION EXPOSURE FROM COMMON RADIOLOGICAL PROCEDURES

Presenter:

Khalid Nasser Alhaarbi

Authors:

Khalid Nasser Alharbi, Waleed Saleh Almutairi, Saleh Khalid Alqaryan, Majed Thaar Alharbi, Nada Ibrahim Alghammas, Mahboob Hussain.

Introduction & Background: Utilizing radiological procedures have become a pillar of modern day practice of medicine. Medical students should understand the importance of knowing the hazards of radiation exposure since they will be the physicians of the near future. Objective: To assess how much do medical students, in preclinical and clinical phases, in Qassim University know about the radiation exposure and risks. Method: We distributed a self-reported, cross-sectional survey to all the medical students between April and May of 2015. All data were collected, entered and analyzed via SPSS. Result: With the response rate of 45.6%, 28.5% of clinical phase students were able to identify the correct dose of all techniques while only 3.7% of preclinical students did. Around half of the students thought that MRI and Ultrasonography emits ionizing radiation. Only 22.2% of students correctly identified blood-forming organs as the most sensitive body part to radiation. Most of the students (61%) think that it is important to know the radiation exposure and its effects. Discussion & Conclusion: There is a lack of knowledge and awareness among medical students towards radiation exposure. We need to tackle this problem by providing more tutorials about radiation hazards and train students to be safe health providers in the future.
Infection and Malignancy in Rheumatoid Arthritis; A Single Center Experience in Saudi Arabia

Presenter:
Mayyadah Hail Alabdely

Authors:
Mayyadah H. Alabdely, Ayan Hussain, Raghad Bokhari, Samar Shetae, Magdy Mahgoub, Maha Omair, Mohammed Omair

Introduction & Background: Cohorts worldwide have contributed to the knowledge that rheumatoid arthritis (RA) patients are at risk of developing infection and malignancy. The incidence and prevalence of these complications in the Saudi Population is unknown. Objective: The objective of the current study is to describe a single center experience over a period of 29 years. Method: This is a retrospective chart review study. Descriptive statistics were used for patients’ demographics. Drug exposure was defined as filling one prescription for 3 months or more. Prevalence and incidence were calculated for both biopsy proven malignancies and culture proven infections. Logistic regression was applied to evaluate variable that increase the risk of infection or malignancy. Result: the cohort evaluated 521 RA patients. Demographics included: mean age of 50.1±14.1 years, disease duration of 8.8±7.5 years and a female predominance of 82.2% patients. Of those 115 patients contracted at least 1 infection, and 15 were diagnosed with malignancy. The prevalence and incidence of infection were 22.1% and 3/100person/year respectively. Characteristics associated with a higher rate of infection included female gender: OR 1.9 (C.I. 95%: 1-3.5), diabetes mellitus OR 1.8 (C.I. 95%:1.2-2.9), hyperlipidemia OR 2.6 (C.I. 95%:1.3-5.2), bronchial asthma OR 3.9 (C.I. 95%:1.9-8.1), while methotrexate monotherapy as initial regimen or added as combination was associated with a decreased risk of infection with OR of 0.5 (C.I. 95% 0.24-0.99) and 0.28 (C.I. 95% 0.21-0.38) respectively. Corticosteroids and biological exposure were not significantly associated with increased risk of infection. The prevalence and incidence of malignancy were 0.37% and 0.27/100person/year respectively. Discussion: Our cohort demonstrated a similar pattern of infection and malignancy compared to other centers. Several international cohorts have indicated the role of many underlying comorbidities to be associated with increased risk of infection. It is of note that this retrospective cohort have shown a protective effect of methotrexate monotherapy or in combination for RA. Conclusion: Methotrexate monotherapy or in combination conveyed a protective effect from infection while diabetes mellitus, hyperlipidemia and Asthma were associated with increased risk of infection.
Symptoms of Excessive daytime sleepiness and Risk for Obstructive Sleep Apnea among Liver Cirrhosis patients

Presenter:
Fares Hamdan Aljahdali

Authors:
Fares Al-Jahdali Al Enezi Abdullah, AL-Jahdali Hamdan, Anwar E. Ahmed, AL-Harbi Abdullah, Baharoon Salim, Aljumah Abdulrahman, AL-Rumyan Ahmad, Mohd Khan, Abdullah Khaleid

Introduction & Background: Berlin Questionnaire is validated good screening tool for high risk patients of OSA. Epworth sleepiness scale is a good tool for excessive daytime sleepiness. Combining both tests may identify truly symptomatic OSA. Sleep disturbance among liver cirrhosis is common in patients with hepatic encephalopathy(HE), however there is limited information of OSA and EDS among liver cirrhosis without HE patients. Objective: To examine the risk of OSA and presence of EDS among diagnosed liver cirrhosis patients.-To examine the relationship between severity of cirrhosis using Child-Pugh scores, and the underlying cause of liver cirrhosis and OSA, EDS. Method: A cross-sectional study conducted at KAMC-R over a period of six months between January 2012 and July 2012, We enrolled all stable patients with confirmed diagnosis of liver cirrhosis. Excluded all patients with other comorbidity that may cause sleep disturbance, include; chronic pulmonary diseases and congestive heart failure. Result: We enrolled 200 patients with liver cirrhosis, 57.5% were male. Hepatitis C was frequent cause of liver cirrhosis 60.2%, Of the patients with liver cirrhosis, EDS was reported by 29.5%, High risk for OSA was reported by 29.5%, The presence of both EDS and OSA was reported by 13.5%. Liver cirrhosis patients who had HbC as the cause of liver cirrhosis were significantly more likely to report EDS symptoms 60.2% than B 19.4%. CTP class B had 50% less odds of high risk for OSA, also CTP class B was significantly less likely to report EDS and high risk for OSA compared with CTP class A. (table 1 and 2). Discussion: This study include a large number of patients with liver cirrhosis, which document the association between liver cirrhosis and OSA, EDS. However, the diagnosis of sleep apnea was based on questionnaire and there is no formal polysomnography then to confirm the diagnosis of sleep apnea. When we compared the prevalence of EDS and OSA among liver cirrhosis it is defiantly higher than prevalence among normal population 20.5% and 31.9% respectively. Conclusion: -Our study showed that there is a significant sleep disturbance among cirrhotic patients specially with those who had cirrhosis caused by Hepatitis “C”.- Physician should screen liver cirrhosis patients for sleep disturbance.
Gender Effects on Students’ Perception of their Assessment in a Community of Clinical Practice and the Resulting Study Strategies

Presenter:
Mead Hasan AlQarny

Authors:
Prof. Hanan Alkadri, Ghada AlQahtani, Lama AlMadhyani

Introduction & Background: This research was intended to elucidate the effects of gender on students’ perception of assessment. We explored in this mixed method qualitative research how and why students’ gender affects students’ perception of their assessment and their subsequent study strategies. In this work, we will present the qualitative aspect of this research. Objective: To explore undergraduate medical students perception of their assessment. Method: The research was done at King Saud bin Abdulaziz University for Health Sciences, College of Medicine. We conducted a qualitative study with a phenomenological approach using semi-structured individual interviews with the female medical students. The interviews were transcribed verbatim, analyzed through thematic analysis and themes and codes were identified. The female interviews were compared with similar previous work done on male students in the same institution. From the interviews a quantitative survey was designed utilizing likert scale. The survey was distributed on male and female medical students within the institution who were in their clinical years. Result: A total of 12 female students were interviewed through semi-structured interviews. After 12 interviews, we reached data saturation. The interviews’ thematic analysis yielded three major themes: summative assessment, formative assessment and curriculum objectives with their related codes. Discussion: Results revealed that female students were more able to accommodate negative feedback from the supervisors while the male students perceived it as criticism. Also, male students considered the curriculums objectives to be fair and reliable where the female students thought it is unfair and not always linked to the assessment. Conclusion: This study suggests that gender can affect how the students perceive assessments and how they learn. To maximize the educational impact of assessment programs and motivate students to learn and benefit from the feedback, a careful balance between summative and formative assessments accompanied with clearly defined curriculum objectives are required.
Investigating Perceived stress among Doctor of Pharmacy students at King Saud bin Abdulaziz University for Health Sciences: A Pilot study

Presenter:

Faisal Homoud Alanzi

Authors:

Prof. Amjad M. Qandil, Dr. Abdulmalik M. Alkatheri, Faisal Homoud Alanzi and Mohammed Abdulrahman Alrashed

Introduction & Background: It has shown that college students are under perceived stress during their academic life. Negative stress reduces academic performance and develops negative emotions and result in poor health outcomes. Objectives: This pilot study that aims to investigate the perceived stress and some of its risk factors for stress among PharmD students in College of Pharmacy at King Saud bin Abdulaziz University for Health Sciences (KSAU-HS).

Methods: This is a cross-sectional study that was conducted at KSAU-HS. Pre-professional year 2 and professional years 1 and 2 PharmD students were invited to participate. The participants were asked to complete demographic data-sheet in addition to the Perceived Stress Scale-14 (PSS-14). Statistical analyses were performed using SPSS v20. Results: Response rate was 91.1% (N = 72). The average age of was 19.76 ± 2.67 years, 31.9% (N = 23) of which were females and 54.2% (N = 39) were in their second pre-professional year. Average stress score was 27.76 ± 7.48. A score of 28 was the operational cut-off point between low and high-perceived stress. Accordingly, 50% of the participants reported low perceived stress. Students who perform physical exercise reported lower perceived stress, while female students, students who enrolled in the PharmD program by choice and students in the pre-professional year have reported higher perceived stress. GPA, family income, smoking and family size were not associated with the perceived stress level. Discussion: There is support in the literature for the observation that the academic level and gender (female) are negatively associated with perceived stress levels. While the evidence is controversial with regard to the positive effect of exercise. Conclusions: Almost half of the PharmD students has reported high perceived stress. Promoting exercise coupled with a suitable counseling program for female and pre-professional students are recommended to reduce the levels of perceived stress.
Attitude, Knowledge and Smoking Habits Among Female Students in Riyadh

Presenter:
Lujain mohammed A dabbah

Authors:
Nourah Al Dosari, Tasneem Hawsawi, Lujain Dabbah, Dr. Eman Miligi

Introduction & Background: Smoking is a major quiet serious worldwide problem relative to health that has been spreading out among young individual students most especially female gender. (53.4 %) deaths of lung disease associated with smoking as reported worldwide. Currently, smoking habit spread among female students widely. Objective: The objectives were to investigate the following factors such as: attitude, knowledge and habits of smoking among Saudi Arabian female students. Method: A descriptive cross-sectional design. All the students were invited to participate in the survey. Result: The study revealed that (35.11%) indicated that they smoke tobacco and 64.89% not smoking. As for the primary influence, friends were considered factor that could initiate smoking. The major factors as revealed in the study which drive students to smoke were from a lot of stress and surrounding environment, and (40.49%) show that through smoking relaxation were then achieved. Moreover, (64.87%) tried to quit smoking for personal health reasons but the significant factors like friends and the surroundings environment prevented the respondents from quitting smoking. Discussion: According to present study, the result showed that important factor that encourage to quit smoking were personal health, followed by effect of smoking on non-smoker. These results are in agreement with the findings of other previously reported studies which indicated health and religious considerations were identified as important motives for not initiating smoking and reasons to quit smoking (Al-Kaabba et al., 2011). In our study, the mean factor prevent to stop smoking were surrounding environment followed by a lot of stressor, from our pint view the surrounding environment which include smoker friends, lack of support and a lot of stress it will not encourage smoker students to stop smoking. Conclusion: The study indicates that prevalence, habits, and factors of smoking varies among the subjects. Friends, lots of stress and the surrounding environment were mostly the main reasons that influence the students to starts smoking. The recommendation of the researchers were: 1. Develop an education program to increase awareness toward the bad influence of smoking to ones health and, 2. Provision of consultation time/unit in every institution thus helping the female students to express the feelings and relieve their stress from any reason thus refrain the university students in Riyadh from smoking.
Modified geometry three-layer tablet as a platform for class II drugs zero order release system

Presenter:

Abdullah Monahi Albogami

Authors:

Abdullah Monahi Albogami, Mustafa Ahmad Mustafa, Abdulkareem M. Al Bekairy, Alaa Eldeen B Yassin

Introduction & Background: Multi-layered tablets have showed a growing attention as a useful controlled release tool with multiple other applications such as drug combinations with reduced chance of interaction and/or inducing multi-drug release profiles in one dosage form (Name-do,2008). Sandwich-like three-layered tablets with drug core middle layer and two barrier layers is more reliable for constant rate release purpose. The main factors that affect the performance of such system are the nature and ratio of both the barrier and core layers and the geometrical design of the tablet (Moodley et al., 2012). Geometric factors such as the core thickness or ratio of core thickness to diameter are the main design related parameters that are usually manipulated for optimization (Choi et al., 2013). Objective: The main goal of this study is to optimize the geometrical design of three-layered tablets for controlling the release of indomethacin (Ind) as a model drug for Biopharmaceutical Classification System (BCS class II). Method: The core formula (Ind containing layer) was optimized to ensure non-disintegrating tablet with a slow release behavior applying both direct compression tableting technique. Three-layered tablets were prepared by a single-step direct compression method by manual feeding of a hydrophobic layer in the bottom followed by Ind core layer and another hydrophobic layer at the top. Two round compression sets; 6mm and 12 mm were used. Four batches were prepared differing only in either thickness of the drug layer or the tablet diameter. Number of factors was studied including, tablet thickness to diameter ratio and the drug layer surface area. The rate of Ind release was determined using USP dissolution apparatus I. Result & Discussion: The optimum drug layer formula contained Ind (40%), polyvinylpyrolidone K30 (40%), and ethylcellulose (20%). Comparing batch 1(6mm: 1 mm) and batch 2 (12mm: 1.02mm), the t50% (time taken for 50% drug release) was 2.75 h and 2 h, respectively. On the other hand, t50% for batch 3 (6mm : 1.9mm) was found to be 3.7 h while it was found to be 1.5h in the case of batch 4 (12 mm : 2.17mm). The correlation between tablet thickness/diameter ratio with the cumulative % Ind released after 4 h was very good with $R^2=0.9871$. This indicates the effect of surface area on the release rate. The higher the surface area is the higher the release rate. It was found that all batches complied with Zero order kinetic model. Conclusion: The new one-compression phase applied in this study was very successful in producing three-layered tablets in a single-step with very good mechanical attributes. There was very good correlation between the surface area of drug layer and Ind release rate. The approach of designing a controlled release tablet through controlling the surface area of drug release is feasible for non-swelling matrices.
Help-Seeking Behavior Among Adults In Riyadh, Saudi Arabia: A Cross Sectional Study

Presenter:

Saleh Abdullah alhaidar

Authors:


Introduction & Background: Dealing with and managing people health problems should be in the hand of qualified health professionals. There is increasing popularity of those who claimed to manage diseases even though they were not not trained medically. Objective: This study sought to identify the socio demographic and socio economic characteristics of people seeking health related help from non professional, these reasons for seeking help and the sources of health information available to the public. Method: A cross sectional descriptive study was conducted in Riyadh, Saudi Arabia, between Sep 2014 - March 2015. The sample size was calculated to be 195 Saudi adults. An Online survey was used to distribute a well structured questionnaire. Result: A total of 225 participants applicable. One hundred and ninety one complaint (71%) were by female, The majority were unmarried 164 (61%). Physician consultations increased as the participants get older while dependence on self help and relatives consultations decreased. The majority of married participants consulted Physician 69(65.7%) but many unmarried prefer self help and relatives consultations 72 (43.9%). There are 25 (9.3%) who had nonspecific disorders. Those who consulted medically trained practitioner 13(52%) and a high proportion of them 11 (84.6%) claimed to get a benefit. On the other hand, only 4 (33.3%) out of 12 (48%) who consulted non medically qualified practitioner noticed any benefit. Discussion: Age, marital status play a significant role in HSB , since it is common for an elderly patient to have multiple pathologies. Also the family experience lead to consulting the medically qualified practitioners through antenatal and pediatric clinics for their wives and children. Conclusion: Help seeking behavior in the Saudi community still need improvement according to the present study as about half of the participants seeks non-medical help. We hope this study stimulate researchers to cover different sides of HSB such as the influence of the internet on self care.
Is proton pump inhibitor use associated with clostridium difficile infection?

Presenter:
Hazza Qessam Al Otaibi

Authors:
Hazza Q. AlOtaibi, Anwer E. Ahmed, Maha A. AlAmmari

Background: Clostridium difficile infection (CDI) and its associated diarrhea is a major avoidable cause of morbidity and mortality in hospitalized patients, yet research is lacking in hospitalized Saudi patients. Objective: The aim of the study was to determine whether clinical characteristics and proton pump inhibitor (PPI) exposure are associated with the risk for CDI in hospitalized Saudi patients. Methods: We conducted a matched case-control study at the King Abdulaziz Medical City, Ministry of National Guard, Saudi Arabia-Riyadh (KAMC-R) from August 1, 2010 through July 31, 2015. A total of 200 patients were included in the analysis, 100 with CDI and 100 matched controls. Controls were selected from patients who were negative for CDI or patients who were not suspected of CDI (and thus their stool cultures were not tested). The cases were matched to controls in a 1:1 ratio using gender, age, and hospital length of stay. Results: No significant difference was observed for PPI use between the two groups. However, the use of Omeprazole was more common in the CDI group compared with the control group (24% vs 13%, P=0.045). Compared with patients in the control group, patients in the CDI group had more clinical symptom severity: mild (8% vs 14%) and moderate to severe (55% vs 80%). Mild watery diarrhea, severe watery diarrhea, severe abdominal pain, blood or pus in stool, and nausea and vomiting were more common in the CDI group compared to the control group. According to the multivariate binary logistic model, mild or severe watery diarrhea ([aOR] = 103, 95% confidence interval [CI] = 24.145 to 439.005), mild or severe abdominal pain (aOR = 11.6, 95% CI = 2.548 to 53.256), and low WBC (aOR = 11.6, 95% CI = 2.548 to 53.256) were found to be risk factors for CDI. Discussion: The association between PPI use and CDI is still being debated. Many recent observational studies have suggested an association between PPIs and CDI. Other studies show a lack of information regarding any association between PPI use and CDI. However, when we analyzed each PPI medications (Esomeprazole and Omeprazole) alone, we noted the use of Omeprazole was significantly more common in the CDI group than in the control group (24% vs 13%, P=0.045). Conclusions: The severity of watery diarrhea and abdominal pain are significantly associated with CDI. Practitioners should screen for severe clinical symptoms in patients who are suspected of having CDI.
ETIOLOGICAL SCENARIO OF CHILDHOOD INJURIES AND PREVENTIVE STRATEGIES: A SURVEY OF PRIMARY/ELEMENTARY SCHOOLS IN SAUDI ARABIA

Presenter:
Sami Saleh Alenazi

Authors:
Dr Mohammed Khalaf AlMutairi, Dr. Abdullah Alanazi, Prof. Ali Karrar Osman, Dr. Nawfal Aljerian, Dr. Abdullah Alqahtani, Dr. Nesrin Alharthi, Dr. Shoeb Qureshi

Introduction & Background: Injuries in children are known to cause considerable economic and family burdens and threaten students’ health and life. Childhood injuries have become a serious public health problem that necessitates urgent attention of the society, schools, families and government. Objective: The aim of this study was to assess the etiological scenario of childhood injuries related with the condition of primary/elementary schools in Saudi Arabia with a view to ascertain the remedial measures. Method: This study was conducted on 35 primary/elementary schools. The study included demographic data about the school type, age, strength of students and teachers, basic life support training, traffic and parking lots and play areas. Our check list concentrated on the etiological factors of injury caused and the possible preventing measures. Data was analyzed by SPSS using Chi square test. Result: The increased number of class rooms, number of floors and inadequate teacher/student proportion might contribute to injuries recorded, in addition to insufficient stop signs, decal system, surveillance cameras and recording camera systems, whereas the speed bumps/humps and other traffic calming devices were significantly adequate. The availability of convenient fire exits, normal indicator panel, presence of whistles, gongs, air horns, visibility of fire extinguishers and external safe escape stairs were significantly positive. Discussion: The results on demographic data showed that increased number of class rooms, students per school, number of floors in the school building were significant causes of injuries among the school children. There are also more chances of accidents and injuries when the student-teacher ratio is inappropriate in different schools. Lack of control of students might be the major reason. Conclusion: Most of the schools are maintained perfectly, however, there are some negative aspects including traffic control measures, lack of decal system, deficit surveillance and recording cameras and maintenance of playgrounds which require attention.
Two Years Outcomes of Allogeneic Stem Cell Transplantation at King Abdullaziz Medical City, Riyadh, Saudi Arabia

Presenter:
Amal Fahad AlJuhani

Authors:
D Jawdat, A Aljuhani, R Alqahtani, B Alhathlol, S Ghazi, A Hejazi, W Almashaqbeh, M Alzahra- ni, K Ahmed and A Alaskar

Hematopoietic Stem cell transplantation (HSCT) is the main treatment strategy for many hematological disorders. An HSCT program was recently established in 2010 at the Ministry of National Guard Health Affair in Riyadh, Saudi Arabia. Here we report comprehensive results of the two years’ experience in adult related-allogeneic HSCT. We describe the patients according to their characteristics, including age, gender, diagnosis and risk class, disease status per transplantation, HLA compatibility, conditioning regimens, significant complications such as acute and chronic GVH. The overall survival (OS), for the patients who received allogeneic HSCT was 64%. the 2-year disease free survival (FS) was 70%. The incidence of acute and chronic GVH was 22% and 39% respectively. For the AML patients, (n=23) the median age at transplantation was 30 years old. The engraftment duration ranged from 11 to 20 days, the 2 year OS was 69% and FS was 62%. For the ALL patients, (n=19) the median age at transplantation was 20 years old. The engraftment duration ranged from 13 to 30 days. The 2 year OS was 38% and FS was 38%. These results indicate a good outcome compared to international results. The incidence of GVH is relatively lower compared to others, which most likely is a result of the high rate of consanguinity in the Saudi population.
KNOWLEDGE, ATTITUDES, AND Barriers TOWARD EVIDENCED BASED PRACTICES AMONG HEALTH CARE PROFESSIONALS IN SAUDI ARABIA; A CROSS-SECTIONAL SURVEY

Presenter:
Rawan Khalid Alasiri

Authors:
Rawan Khalid Alasiri, Dr. Hasan Areabih

Introduction: The backgrounds of physicians, nurses, pharmacists, and allied healthcare professionals naturally differ. Little research has focused on comparing the use of EBP among different healthcare professions. For EBP to be fully implemented, it is essential to clarify possible differences among professions by assessing their knowledge, attitude toward EBP, as well as barrier to implementing EBP. Aim & Objectives: Our study aimed to assess how EBP is perceived among an important groups of healthcare professionals. And to compare and contrast various levels of knowledge, attitude and barriers among various professions Methods: This is a cross-sectional study whereby a self-administrated questionnaire was developed to determine and compare the different levels of knowledge, attitude and barriers toward EBP between physicians, nurses and respiratory therapist in Prince Sultan Military Medical City in Riyadh, Saudi Arabia. 400 questioners were randomly distributed 334 questioners were back with respond rate of 83.5% .

Results: out of 400 questioners, 334 were returned back with respond rate of 83.5% (Physicians, n=141 (42.2%); Nurses n=164 (49.1%); Respiratory therapists n=29 (4.7%). Positive attitudes toward and beliefs in EBP were significantly high in all the participated groups among nurses than in the other groups (P < 0.01). Similar to attitude result allied health care professionals recorded a significantly high value in term of knowledge Lack of time and workload were perceived as the major barriers to evidence-based practice. Only 28.4% have received EBP training during their career. Physicians have had the largest proportion in participation in any form of EBP training by 49.6

Conclusion / Recommendations: Findings in the present study indicate that despite the percentage of health care professionals who never get EBP training in their professional career, participant shows a high ambition in developing their skills in order to incorporate evidence-based practice in their work. Training courses related to EBP should be incorporated in the continued education programs for all health professional who are in a place of making decisions about patient care. Health organization should organize an EBP all kind of activities such workshop course, seminars, and conferences to increase the level of awareness and knowledge of EBP among all health care professional. Healthcare institute should provide the essential resources needed for practicing EBP for all healthcare professionals (e.g. computer sets and, internet access and subscriptions on EBP database sites).
Patterns of Inappropriate Permacath Exchange and Its Associated Cost

Presenter:
Ala Faisal Arab

Authors:
Ala Arab, Hiba Abu Khalil, Mohammed Hussein, Azzam Khankan, Nora Al-alem

Introduction & Background: Several guidelines have been put in place to standardize the protocol of management of suspected infection and exchange of permacath. Objective: The goal of this study is to determine the incidence rate of unjustified permacath exchange and its associated cost in cohort of end stage renal disease (ESRD) patients. Method: This is a retrospective cohort study of 84 patients who came for their first permacath insertion between January 2010 and December 2011 in King Abdulaziz Medical City, Riyadh. All subjects had at least one exchange and were followed for two years from the first permacath insertion. Local guidelines were applied retrospectively on patients’ electronic charts and archives. All of the patients that fulfilled the criteria were included in the study. Data was analyzed using SPSS. Result: One hundred and thirteen catheters were identified in 84 patients who comprised this study (29 (34.52%) males and 55 (65.48%) females, median age 64.5 years (IQR {52.5- 72.0}). The frequency of a single permacath exchange was 73%, two exchanges 21%, and three exchanges 6%. Eighty eight percent of the exchanges were not justified. The total estimated cost for unjustified permacath exchange is 1,219,680$ for every 880 unjustified exchanges. Discussion: The current practice pattern of antibiotics does not adhere to the current guidelines. Majority of the given antibiotics were not consistent with the ones recommended by the guidelines and lack of permacath culture requests, or premature exchange prior to results verification. To our knowledge there are no similar national studies to compare our results with. Conclusion: The current study suggests that lack of strict adherence to the guidelines of catheter exchange among ESRD patients is poor with potential strong financial consequences that cannot be ignored.
Prevalence of tobacco smoking among male students at Majma’ah University, Kingdom of Saudi Arabia

Presenter:
Saad G. ALGhaneem

Authors:
Saad G. ALGhaneem, Mohammed A. AlMansour, Elsadiq Y. Mohamed, Moattar R. Rizvi, Osama S. AlNafisah.

Introduction: Smoking is one of the world’s leading preventable causes of premature death, disease and disability. Although many of the adverse health effects of tobacco occur later in life, smoking has health implications for young people and is associated with other high-risk behaviors among young people including abuse of other drugs, fighting and high-risk sexual behavior. Aim: To study smoking prevalence among male students at Majma’ah University, Kingdom of Saudi Arabia. Methods: The current study was a cross-sectional and institutional–based conducted at Majmaah University which is located in Majmaah city the capital of Majmaah province in the central region of Saudi Arabia. The study population was 23424 males student in the university who were enrolled in thirteen different colleges. Three colleges were selected by simple random allocation; these were Faculty of Applied Science, Faculty of Education as well as College of Business and Administration. Complete enumeration from all three colleges was applied for student selection. The total number was 1000 students. The data was collected by a pre-tested questionnaire. The questionnaire was tested among a sample of students in college of computer sciences in Majmaah University. The data was analyzed using SPSS version 22. Pearson’s Chi Square was applied to confirm associations between qualitative variables. A p-value of < 0.05 was considered as statistically significant. Results: The prevalence of smokers among male students at Majmaah University was 30.4%. Most of tobacco smokers (70.7%) use cigarette, and most (41.3%) consume between 10 and 20 cigarettes per day. The majority of smokers started smoking at the secondary school. The results showed that 39% of the students tried quitting once or twice while 28.25 never tried quitting. Most of the students (73.45) consume less than 500 SR in smoking every month. Conclusion: We found that the prevalence of smoking among male students at Majmaah University is high. Most of the students are medium smokers and initiate smoking at secondary school. Most of the students tried quitting smoking; this may be a base for cessation programs, raising awareness and reinforcing non-smoking attitudes in the schools and universities in this area. We recommend that the university should arrange smoking campaigns in the campus yearly to increase awareness from smoking and Increase number of Cessation smoking clinics in the university.
Screening For Food Specific IgE Antibodies Among Saudi Patients With Clinical Suspi- cion of Food Allergy

Presenter:
Najd Suliman Ben Musibeeh

Authors:
Prof. Zahid Shakoor, Najd S. Musibeeh, Sara R. AlAnazy, Ghaida A. AlHassan, Rawan K. AlMesned, Maha Y. AlYahya

Introduction: The prevalence of food allergy is increasing all over the world and varies in different geographical locations. Objective: 1- Identify common food allergens in the local population based on the detection of elevated serum levels of food specific IgE, that is reflecting the pattern of sensitization to food materials. 2- Examine whether adults and pediatrics differ in the pattern of sensitization. Method: Data for the presence of food specific IgE antibodies were collected retrospectively from 280 Saudi patients screened between October 2012 and February 2014. These patients presented in the allergy clinic at King Khalid University Hospital, Riyadh with clinical signs and symptoms of food allergy. Out of the total 92 patients were found to have food specific circulating antibodies. This group of patients comprised of 67 (72.8%) males and 25 (27.2%) females, with 78 (84.8%) children of <12 years and 14 (15.2%) adults (mean age 9.04±7.71 years). Food specific IgE antibodies were quantified by radioallergosorbent test (RAST) using Pharmacia ImmunoCAP 250 analyzer. Result: The most frequently sensitizing food allergens were milk in 57 (61.96%) patients followed by, egg white in 55 (59.78%) patients, wheat in 42 (45.65%) patients and peanut in 35 (38.04%) patients. Male children were consistently more sensitized against egg white (p<0.0002), egg yolk (p<0.0002), milk (p<0.001), wheat (p<0.0006) and peanut (p<0.0007) compared to females. Milk sensitization was high among children whereas sensitization due to egg white was high in adults. Conclusion: Patients were frequently sensitized against milk, egg white, wheat and peanut particularly the male children. This being a retrospective study was limited by being a single center study; small numbers and lacking skin prick data. Large-scale studies across the Kingdom are recommended to gain a better understanding of the food allergen sensitization in the local population.
Background: A brief advice on smoking cessation was found to be helpful in diminishing such a prevalent health problem. Aim was to evaluate the attitude and practice of primary health care physicians towards delivering a smoking cessation advice to their patients who are smokers in a military community, Central Saudi Arabia. Methods: A self-reported survey of primary health care physicians was conducted using a previously validated tool in 2015. Sample characteristics were age, gender, educational level, job position, experience, previous smoking cessation training. Attitude was measured on a 5-point Likert scale (10 statements); whereas practice was evaluated as favorable or not favorable (5 statements). Scoring system was applied and percentage mean scores were calculated. Descriptive/analytic statistics were applied to identify the significant associated factors with attitude and practice. Significance at P <0.05 Results: Response rate was 73/150 (48.6%), of which equal gender distribution (52%:48%) was observed, with mean of age 35.3±9.6 years. General practitioners were (71.4%), followed by consultants (17.9%) and specialists (10.7%). Post graduate educational levels were (49.3%), while experience averaged 9.5±9.2 years. Almost half (56%) haven’t attended a smoking cessation educational program in the past year. The percentage mean score of attitude was 72.4±11.2, while in practice it was 65.3±27.7. Older age categories showed a significantly favorable practice (>40 years)=82.4±21.7 and (31-40 years)=66.0±26.4 compared to lower age groups (<30)=54.0±27.3, p=0.002. Significantly associated factors of better attitude was observed in higher educational levels (Beta=0.417, t=2.370), adj.p=0.021. By accounting attitude as an exposure of practice, it was found that better attitude is significantly associated with favorable practice (B=0.337, t=2.995), adj.p=0.004. Conclusion: Attitude of primary health care physicians towards providing a smoking cessation advice to patients who smoke is a significantly associated factor with favorable practice, but it was suboptimal in this study. It is advisable to refer smoking patients to physicians with higher educational backgrounds.
Predictors of Coronary Artery Disease in Young Saudi Patients

Presenter:
Gaida Albarqy

Authors:
Dr. Mohammed Balghith, Dr. Mouaz Al-Mallah

Background: Coronary artery disease (CAD) is defined as obstruction of the lumen of the coronary artery due to formation of atherosclerotic plaque. This eventually leads to reduced blood supply to the heart. It could lead to high morbidity and mortality. Risk factors for CAD are divided into modifiable or non-modifiable. Modifiable such as diabetes, hypertension, hyperlipidemia, obesity, smoking while non-modifiable risks are family history, age, and gender according to previous studies. Objectives: The aim of this study is to identify the predictors and the prevalence of coronary disease among young Saudi patients. Methods: This study reviewed 1061 patients referred to the cardiac catheterization lab in King Abdulaziz Cardiac Center in Riyadh between the year 2010 and 2013. Included patients were males and females aged 18-45 years who underwent coronary angiography for various clinical indications. Results: The results were divided into two groups; Group A aged <35 and Group B >35 years. Male gender in Gp.A 143(16.1%) vs. Gp.B 747(83.9%) p-value= 0.500. Smoking Gp.A 84(15.8%) vs. Gp.B 446(84.2%) p=0.680. Obesity Gp.A 43(14.1%) vs. Gp.B 262(85.9%) p=0.234. Family history Gp.A 24(23.1%) vs. 80(76.9%) p=0.069. Hyperlipidemia Gp.A 40(12.9%) vs. Gp.B 271(87.1%) p=0.045. Hypertension Gp.A 20(8.2%) vs. Gp 233(91.8%) p=<0.001. Diabetes Gp.A 20(7.2%) vs. Gp.B 257(92.8%) p=<0.001 Conclusion: The prevalence of CAD was found the highest in male gender, smoking, and obesity respectively. In patients >35 years we found that HTN and Diabetes were statistically significant risk factors. Therefore, a modification of lifestyle habits is recommended.
The relationship between quality of sleep, anxiety and the academic performance among KSAHU-SH students at Al-Hasa and Riyadh

Presenter:
Rehab Almatrafi

Authors:
Rehab Almatrafi, hanadi alabood, bashhare alsubiess, sarah alafai, and bashaar alsubiess

Introduction: Students at schools and universities affected by so many circumstances, whatever was there level or studying year such as (studying hours, sleep problems, family issues, psychological issues, medical problems, life troubles, substance abuse, etc...) All these issues could possibly affect their academic performances in order will affect their GPA. Our study will focus upon sleep quality, anxiety, and studying hours on academic performances (GPA). Recent reports found that as many as two-thirds of patients referred to sleep disorders centers have a psychiatric disorder. The most common psychiatric disorders associated with sleep complaints include depression, anxiety, and substance (illicit drugs and alcohol) abuse. People with anxiety disorders feel nervous, tense, have difficulty-controlling worrying, and find it hard to relax. People with anxiety disorders report a high level of psychological distress and are unable to relax enough to sleep at night. Insomnia in turn can raise anxiety levels. So the student academic performance negatively. Thus, it hypothesized that students identifying themselves as poor quality sleepers would report significantly lower overall grade-point averages than good quality sleepers. Aim & Objectives: Identify factors that affect students’ academic performance. Examine the relationship between of sleep quality measured by PSQI and the anxiety measured by SAW. Identify effect of anxiety measured by on the academic performance by GPA Methods: Descriptive correlational cross sectional design will be used. Nonprobability convenience sampling will be collected from KSAU-HS at Al-Hasa. Convenience sampling generally assumes a homogeneous population and increases the accessibility to a larger sample and larger representation of the population. Sample Size: we will take students from Pre- professional and professional programs students at KSAU-HS Nursing and CAMS. Margin of error: 5% Confidence interval: 95% Standard deviation: 0.5 Sampling method: convenience sampling method . It’s easy to select and available Results: The student’s whom have anxiety and poor sleep quality, they have low academic performance. The GPA level was at the average to the low level GPA less the 3, so the null hypothesis is true. Conclusion:There is relationship between quality of sleep, anxiety and the academic performance among KSAHU-SH students at Al-Hasa and Riyadh. There was a limitation in the collecting the data the time for collecting the data was not enough time, and the response rate was very low. The student whom have poor sleep quality . anxiety, they have low GPA. The recommendation is to perform the study on the student at the begging, at the middle, and at the end of the semester to be able to identify of the poor sleep quality and the anxiety and it’s effect on the academic performance at different times and Identify what time have the must negative effect on the student acidic performance.
The effect of ANA levels on clinical course of ITP in adults.

Presenter:
Loui Adnan Ezzat

Authors:
Loui A Ezzat, Hatoon M Ezzat

Introduction: Immune Thrombocytopenic Purpura (ITP) is an autoimmune mediated disease. Patients with primary ITP are occasionally found to have an ANA titer of ≥ 1:160. Methods: In this study, we have compared ITP patients with positive Antinuclear Antibody (ANA) titer and this was correlated with their clinical presentation including steroid responsiveness, platelet count at presentation and development of autoimmune disease. The study is a retrospective chart review of 765 adult patients with ITP, who were regularly followed at St. Paul’s Hospital, Vancouver, Canada. 120 patients whom had a diagnosis of ITP and had ANA testing during their initial work up were included in our study. Data was analyzed using Chi-square test, Fisher’s exact test or Wilcoxon rank sum test as appropriate. Results: Twenty four (20%) patients had ANA ≥ 1:160. 10 (58.8%) patients had ANA ≥ 1:160 were steroid resistant and 9 (29.0%) with ANA < 1:160 were steroid resistance (P value of 0.044). Moreover, 5 (20.8%) patients with ANA≥ 1:160 had developed other autoimmune diseases after being diagnosed with ITP, compared to only 1 (1%) in patient with ANA <1:160 (P value of 0.001). We have also noticed that patients with ANA≥ 1:160 presented with a lower platelet count compared to patients with ANA<1:160, platelet count mean was 33 and 59.9, respectively (P value of <0.001). Conclusion: In this study, we aimed to analyze the relation between high ANA and ITP clinical course. We have found that patients with ≥1:160 are prone to be steroid resistance, have a higher risk to develop other autoimmune diseases and also present with a lower platelet count when comparing them to patients with ANA <1:160. To our knowledge this is the largest cohort of patients showing these findings and these results were supported by similar studies in this field.
Factor predicting total nucleated cells count (TNC) in cord blood units collected at King Abdullah International Medical Research Center-Cord Blood Bank

Presenter:
Reham AlQahtani

Authors:
Reham AlQahtani, Sarah AlHedaithi, Dunia Jawdat, Suah Arab, Amal AlJuhani

Introduction: Stem cells in umbilical cord blood (UCB) have been used worldwide in transplantation to treat various diseases. UCB efficacy can be predicted by the number of total nucleated cells (TNC). Aim & Objectives: To optimize the clinical use of stem cell in our population and improve the criteria of the donation of UCB, this study: Addressed variables in relation to the mother and infant. Determined the factors that can affect TNC count. Methods: This is an observational cross-sectional study conducted at King Abdulaziz Medical City. From 2012 to 2014, 957 UCB units were collected from consented mothers by trained personnel using standard procedure. Data analysis of clinically accepted CBUs was correlated with maternal and infant factors. Results: Based on the TNC accepted level of banking which is at least 90x10^7 cells, 188 CBUs (19.64 %) were rejected from a total of 957 units. Of the 17 maternal and infant variables evaluated, three factors demonstrated a statistically significant predictive value of accepted TNC level. Cord blood volume was the best predictive factor (p-value=<0.0001). Consequently, newborn birth weight (P-value= 0.002) and method of delivery (p-value =0.025). Discussion: Results of this study, shows for every 10 grams deviation from the mean cord blood weight, there was a 2.6% chance more likely to produce TNC counts to be accepted for clinical use. Also in this study , analysis showed that with every 500 grams deviation from the mean newborn weight, there was a 40% chance more likely to produce accepted TNC counts. In addition, delivering mothers who underwent C-section are 40% less likely to produce accepted TNC counts. Conclusion / Recommendations: Several maternal and neonatal factors appear to play a major role in predicating accepted TNC count level. We recommend to set a criteria for the donation of stem cells from UCB and suggest other studies to look for other variables from different aspect of the mother and the infant like nutrition, race and psychosocial status.
Level of Control Among Patients With Type 2 Diabetes Mellitus Attending Diabetic Clinic Under Family Medicine Compared to Diabetic Clinic Under Endocrinology at King Abdul-Aziz Medical City For National Guard – Riyadh

Presenter:

Ahmed Abdulaziz Alolah

Authors:

Mohammed A. AlHabdan, Dr. Mohammed AlAteeq, Fiasal I. AlJurbua, Ahmed A. AlOlah

Introduction & Background: There are different types of practices in the management of Diabetes Mellitus (DM) worldwide. Diabetic patients may be managed either solely by family physicians, internists or endocrinologist/diabetologist or in a shared care between different specialties. This may result in variations in the level of control and the outcome of DM. Objective: To assess and compare the level of control of type 2 diabetic patients attending the diabetic clinic under family medicine service and patients attending the diabetic clinic under endocrinology service, and to explore the effect of different variables on the level of control in both groups. Method: A retrospective cross-sectional study by reviewing diabetic patients’ medical records and lab studies from Hospital Information System at King Abdul-Aziz Medical City, National Guard Health Affairs, Riyadh, Saudi Arabia using predesigned sheet for data collection. Result: Among 352 patients enrolled in the study, 176 (50%) patients were from the family medicine setting and 176 (50%) patients were from the hospital setting. The mean HA1c for the whole study population was 8.97 + 1.87. There was no significant difference between the two groups in regard to the level of control (9.01 + 1.75 in the family medicine setting compared to 8.93 + 1.98 in the hospital setting). No significant correlation was found between the level of control in one hand and age, duration of disease and number of follow up visits on the other hands in both settings. Conclusion: Patients with type 2 diabetes mellitus in this study were found to be poorly controlled in the two settings, the diabetic clinic under family medicine and the diabetic clinic under endocrinology. More to be done in the future towards improvements in diabetic patients’ care in the diabetic clinic under family medicine which is expected to be easily accessible, more convenient, and more cost effective to the patients.
Assessment of patient safety culture among physicians at the Security Forces Hospital, Makkah City

Presenter:
Mohammed Abdullah Alshareef

Authors:
Alshareef Mohammed, Ahmad elsheikh, Bassem Saleh

Introduction & Background: Patient Safety is an international challenge. Thousands of patients around the world experience medical disability or death due to unsafe medical care. The assessment of Patient Safety Culture (PSC) is under-researched in Saudi Arabia. PSC assessment provides a clear picture of organisational culture, particularly the underlying norms, beliefs and values. Objectives: To describe doctors’ perceptions of PSC, their supervisors’ attitudes and the communication regarding PS at Security Forces Hospital (SFH). To identify strengths and areas for PSC improvements and to compare the SFH results with international results. Methods: This dissertation used a cross-sectional descriptive design using a quantitative research approach, which is the Hospital Survey On PSC. The survey was completed by 103 doctors with a high response rate of 83%. Results: The overall perceptions of PS at SFH was positive (53%). However, none of the PSC dimensions was considered an area of strength and three dimensions were considered weak areas which needed action to be improved. These dimensions are: staffing (24%), non-punitive response to error (21%) and handoffs & transitions (48%). Discussion: The communications and management dimensions were considered positive which is comparable to international hospitals. It is clear from the results that there are three major weaknesses in SFH which need improvement plans and actions: staffing, handoffs & transitions and non-punitive response to error. This dissertation highlights the variations between the departments in terms of which needs special attention from senior management and how to unify hospital strategy with the aim of improving PSC. One of the barriers of PSC is the blame and fear culture; managers at SFH need to eliminate this culture and increase the culture of learning from errors. Conclusion: This dissertation highlights dimensions of weakness and strengths in SFH. The recommendations include improving communication, unifying hospital strategy to improve PSC, increasing staff numbers and involving doctors in establishing a non-punitive response to error and a “no blame” culture.
Pattern of Renalcolic Occurrence Due to Urinary stones During Ramadan and Other Months of The Year at King Abdulaziz Medical City

Presenter:
Muath Ibrahim jaafari

Authors:
Dr. Sultan Alkhateeb, Dr. Amen Bawazir, Ibrahim Abu-Saq, Abdullah Al Mufarrih, Muath Jaafari, Abdullah Al Mahayni

BACKGROUND: Few studies have investigated the frequency of Renal Colic (RC) secondary to urinary stones during Ramadan, and none examined the seasonal variations of Ramadan, where it may fall into summer or winter. OBJECTIVE: The aim of this study is to explore the frequency of renal colic secondary to urinary stones in Ramadan compared to other months and seasons of the year. METHOD: Retrospective cross-sectional study using medical records of 237 patients admitted through emergency room with a diagnosis of RC secondary to urinary stones over randomly selected periods representing Ramadan in winter and summer and other months as a control over a period of 10 years at King Abdulaziz Medical City, Riyadh, Saudi Arabia. RESULT: Patients fasting in Ramadan are two times more likely to present with a calculus of Ureter as opposed to calculus of Kidney/other, particularly when the holy month of Ramadan falls into the summer. However, there was no significant difference in the frequency of RC secondary to urinary stone between Ramadan and non-Ramadan months. The mean age of patients with kidney/other urinary calculus is significantly higher than age of Ureter calculus patients (P < .001). CONCLUSION: Fasting Ramadan is associated with a higher chance of presenting with ureteric stone especially when Ramadan is in the summer months. Patients with known kidney stone disease should be warranted and recommended to drink plenty of fluids during the nighttime in Ramadan. These findings need to be confirmed in a population-based study. The study has done in a Retrospective so many confounders could affect the result such as family history and social life pattern.
Lung Cancer Management through the Analysis of Volatile Organic Compounds

Presenter:
Ahmed Abdulrahman Aldhahi

Authors:
Ahmed Aldhahi, Yazeed Alrabah, Abigail V. Rutter, Muhammad R. Siddique, and Josep Sulé-Suso

Introduction & Background: Lung cancer has the highest mortality rate among various types of cancers. A lot of nowadays techniques that used to diagnose lung cancer have harmful effect on the patients. Previous studies have found that both CALU-1 and NL20 release acetaldehyde in vitro, CALU-1 producing a higher level of AC than NL20. However other studies have provided conflicting results about the release of AC of CALU-1 populations. This study examines the differences in AC level which is released by the cell lines in the presence or absence of L-threonine and Pyridoxal. The aim of this study is to further our knowledge about the metabolic processes of cancerous population which can end up with the diagnosis of lung cancer through breath analysis.

Method: This study used two different cell lines; CALU-1 and NL20. We used for culture conditions two media in SIFT-MS bottles. One with PBS, supplemented with Glucose and FBS. While the other one with the addition of L-threonine and Pyridoxal. Then we incubate them after the bottled were air purged. Also, we prepared a control air bottle and two a-cellular control bottles with media. The volatile organic compounds were analyzed by using a Profile 3 SIFT-MS instrument.

Result: The results have shown that in control group the addition of L-threonine and Pyridoxal reflect on increase the release of AC. While the addition of L-threonine and Pyridoxal to CALU-1 and NL20 did not enhance the release of AC.

Conclusion: The addition of L-threonine and Pyridoxal did not increase AC levels in the headspace of either CALU-1 or NL20 cells. Further work is needed to clarify whether the possible extra AC produced by the cells is immediately metabolized.
FOXM1 Inhibition Induce Caspase-Dependent Apoptosis and Matrix Metalloproteinase (MMP) Down Regulation in MDA231 and EVSAT Breast Cancer Cell Lines

Presenter:
Arwa Sulaiman AlKabas

Authors:
Dr. Maqbool Ahmed, Dr. Azhar Hussain, Saleh Alsulami, Arwa Alkabas

Introduction & Background: FOXM1 is one of mammalian Forkhead Box (Fox) family of transcription factors, which has been shown to play an important role in cell cycle and mitosis. Interestingly, FOXM1 is over-expressed in multiple tumors and promotes pathogenesis of several malignancies. Thiostrepton is an antibiotic and is known for its important anti-proliferative activity via its down regulation of FOXM1. Foxm1 has also been associated with matrix metalloproteinase (MMP) in various cancers and that allows invasion and metastases of tumors. Objective: In this study, we investigate the role of FOXM1 inhibition in inducing caspase-dependent apoptosis and decrease breast tumor invasion and migration via MMP2 and MMP9 down regulation in MDA231 - EVSAT breast cancer cell lines. Method: MDA231 – EVSAT breast cancer cell lines were used and treated with Thiostrepton for 48 hours in two concentrations (5 umol/L and 10umol/L). Expression of FoxM1 and its associated proteins were investigated in MDA231 and EVSAT breast cancer cell lines by Immunoblotting. Cell viability was analyzed using Annexin V staining in flow cytometry. Result: After treatment of MDA231 and EVSAT breast cancer cell lines with Thiostrepton for 48 hour, cells viability was analyzed using flow cytometry. Results showed increased apoptotic cell death compared to control untreated cells in both cell lines, in a dose-dependent manner. Moreover, Immunoblotting showed decreased FOXM1, MMP2, MMP9, caspase 3 and caspase 9 and cleaved caspase 3 and PARP associated with Thiostrepton treatment in both cell lines. Conclusion: In summary, our results presented that treatment with Thiostrepton down-regulates FoxM1 and causes caspase-dependent apoptosis. Invasion and migration of MDA231 - EVSAT breast cancer cell lines believed to be minimized due to down-regulation of MMP-2 and MMP-9 associated with FoxM1.
Comparison of the Effectiveness of Equal Doses of Short and Long-Acting Eryth- 
rocyte Stimulating Agents for Managing Anemia in Chronic Kidney Disease Adult 
Patients

Presenter:
Khalifa Ahmed Alkhamees

Authors:
Abdulmalik Alkatheri, Abdelkareem Albekairy, Yousef Al-Rajhi, Shamyln Al-Harbi, Khalifah 
Alkhamees, Fayez F. Hejaili, Rami Bustami, Amjad M. Qandil and Mahmoud Mansour

Background: The aim of the present study is to compare the efficacy of equivalent doses of eryth-
ropoiesis stimulating agents (ESAs): short acting (Eprex) and long acting (Darbepoietin: DA) in 
the treatment of anemia of chronic kidney disease (CKD) adult patients treated from September 
2014 to January 2015. Methods: A total of fifty five patients were included; 22 patients were treat-
ed with Eprex and 33 patients received DA. Different blood indices were assessed in the initial 
8 weeks. The equality of the doses was based on the conversion formula (1 µg of DA = 300 IU 
Eprex). Results: Treatment with lower dose of DA (0.64±0.07 µg/kg QW) induced a significant 
increase in hemoglobin (HB) from week 4 through week 8, while red blood corpuscles (RBCs) 
and hematocrit (Hct) were significantly elevated in week 8. A significant increase in HB and 
Hct were observed starting from week 2 through week 8 parallel with a significant rise in RBCs 
count, starting from week 3 through week 8 after treatment with DA (0.8±0.06 µg/kg QW), while 
a significant increment of HB and Hct were noticed after treatment with DA (1.215±0.11 µg/kg 
QW) from week 3 to week 7. Administration of higher dose DA (1.37±0.22 µg/kg QW) led to a 
significant rise of RBCs in week 3, 6 and 7 while HB and Hct in week 6 and 7. Treatment with 
equal doses of Eprex (170.85±16.4 IU/kg and 238±25.9 IU/kg) induced only a mild increase in 
RBCs in week 7 and 6 respectively, while higher dose of Eprex (413±40.8 IU/kg) elevated RBCs 
significantly at week 8 and Hct in week 6 and 8. Conclusion: Administration of DA QW is more 
effective than Eprex QTIW in terms of target anemia parameters: RBCs, HB and Hct during the 
first 8 weeks of administration.
Comparison of the Effectiveness of Equal Doses of Short and Long-Acting Erythroid Cell Stimulating Agents for Managing Anemia in Chronic Kidney Disease Adult Patients

Presenter:

Khalifa Ahmed Alkhamees

Authors:

Abdulmalik Alkatheri, Abdelkareem Albekairy, Yousef Al-Rajhi, Shamylan Al-Harbi, Khalifah Alkhamees, Fayez F. Hejaili, Rami Bustami, Amjad M. Qandil and Mahmoud Mansour

Background: The aim of the present study is to compare the efficacy of equivalent doses of erythropoiesis stimulating agents (ESAs): short acting (Eprex) and long acting (Darbepoietin: DA) in the treatment of anemia of chronic kidney disease (CKD) adult patients treated from September 2014 to January 2015. Methods: A total of fifty five patients were included; 22 patients were treated with Eprex and 33 patients received DA. Different blood indices were assessed in the initial 8 weeks. The equality of the doses was based on the conversion formula (1 µg of DA = 300 IU Eprex). Results: Treatment with lower dose of DA (0.64±0.07 µg/kg QW) induced a significant increase in hemoglobin (HB) from week 4 through week 8, while red blood corpuscles (RBCs) and hematocrit (Hct) were significantly elevated in week 8. A significant increase in HB and Hct were observed starting from week 2 through week 8 parallel with a significant rise in RBCs count, starting from week 3 through week 8 after treatment with DA (0.8±0.06 µg/kg QW), while a significant increment of HB and Hct were noticed after treatment with DA (1.215±0.11 µg/kg QW) from week 3 to week 7. Administration of higher dose DA (1.37±0.22 µg/kg QW) led to a significant rise of RBCs in week 3, 6 and 7 while HB and Hct in week 6 and 7. Treatment with equal doses of Eprex (170.85±16.4 IU/kg and 238±25.9 IU/kg) induced only a mild increase in RBCs in week 7 and 6 respectively, while higher dose of Eprex (413±40.8 IU/kg) elevated RBCs significantly at week 8 and Hct in week 6 and 8. Conclusion: Administration of DA QW is more effective than Eprex QTIW in terms of target anemia parameters: RBCs, HB and Hct during the first 8 weeks of administration.
Public Awareness of Colorectal Cancer: A Cross Sectional Study in Qassim Region, Saudi Arabia

Presenter:
Saleh Khalid Alqaryan

Authors:
Saleh K. Alqaryan, Majed T. Alharbi, Fadi O. Alharbi, Soliman A. Alnasser, Moayad S. Alqazlan, Tamim R. Alqazlan

Introduction & Background: In Saudi Arabia, Colorectal cancer (CRC) is ranked first in incidence among males and only third among females. Objective: We aim to assess knowledge and awareness of CRC in term of signs, symptoms, risk factors and diagnosis in Qassim region, Saudi Arabia. Methods: This is a cross-sectional study using Bowel/Colorectal Cancer Awareness Measure questionnaire. The questionnaire includes both open-ended (recall) and closed-ended (recognized) question to assess participant’s knowledge about CRC. Six trained interviewers carried face-to-face interviews with the participants in randomly chosen shopping malls. Results were analyzed by SPSS. Results: Overall younger respondents recalled the greatest numbers of signs and risk factors. Older respondents were most likely to recognize risk factors. Participants with a history of cancer themselves or their relatives were more likely to recall signs and risk factors, but there was no difference compared to those with no history in the number recognized. The most recognized sign was a lump in the abdomen. Respondents with a history of cancer indicated they would be slower to seek help than those without (P=.001). Discussion: The ignorance of CRC symptoms in our population can explain the delayed presentation observed in CRC patients. Awareness of signs and symptoms of CRC and risk factors was poor overall with respondents in this population survey recalling, on average, about one CRC sign recalled and able to recognize three or more signs. Other studies found the same observation. Surprisingly, only a small fraction of respondents (24.5%) recognized a family history of CRC as a risk factor. Different studies locally and worldwide showed more awareness regarding family history association with CRC. Conclusion: There remains poverty of knowledge about CRC signs, symptoms and risk factors in Saudi Arabia. Health care professionals need to take the initiative in educating the public about CRC.
Systemic Review: Emergency Medical Services System

Presenter:
Abdullah Mohammed Alharbi

Authors:
Dr. Mohammed Al-Mutairi, Dr. Abdullah Al-Qahtani, Dr. Nawfal Aljerian. Abdullah Alharbi

Introduction & Background: The concept of Emergency Medical services wasn't new to Saudi Arabia since 1953, EMS has taking a role in the health care scene in Saudi Arabia. In this paper will focus on the EMS system in Saudi Arabia in many aspects. Objective: Review the EMS System in Saudi Arabia; including the services provided by the system, the structure of the system, the role of Saudi Red Crescent, educational programs, the future plans for improving the system and the role of SRCA in managing Hajj and disasters. Method: All the information had been collected through reviewing all databases and search engines using relatable key words and reviewing articles, journals and books in Public libraries. Result: In Saudi Arabia, EMS has been attracting attentions from governmental and non-governmental sectors to improve the system to be able to maintain a stable well-designed system that can alter the outcomes of patients' health. Conclusion: Emergency Medical Services in Saudi Arabia has been improving in a progressively way including different aspects related to the pre-hospital settings. EMS persists in offering a standardized, safe, high quality medical care and transportation for those in need working alongside with other health related sectors for better outcomes.
How Is Euthanasia Viewed Among Different Groups of People?

Presenter:
Mohamed Tarek Metawee

Authors:
Dr Nivin Sharaf, Islam M. Elsayed, Mario S. Sanad, Mohammed T. Metawee

Introduction/Background: Over time, euthanasia has been a controversial issue that passed through several obstacles. These ranged from legal to religious and even to ethical ones. However, little attention was drawn to the people’s attitude towards euthanasia. Objective: The study investigates the attitude of different groups of people toward euthanasia. Method: The data was collected using an online survey from 370 people of different nationalities to guarantee randomness; it targeted people of different age groups, gender, educational and professional background. Results: 53.24% (197) were totally against euthanasia, 23.51% (87) disagreed to a certain extent, 20.81 (77) agreed to a certain extent, and 2.43% (9) totally agreed. Discussion: younger groups followed the trend because they were indecisive due to their lack of experience and education. However, old age group greater than 40 were more conclusive in their decisions. This is mainly because old people are usually stereotype and adamant about their decisions Conclusion: These results convey that euthanasia is starting to get widely accepted theoretically especially among younger generations, but it will still face many problems when it comes to practical application.
Prevalence of Vitamin D Deficiency in Saudi Newborns at A Tertiary Care Centre

Presenter:
Hussam Alrazqan

Authors:
Hussam Alrazqan, Hashem Almahmoud, Abdulaziz Almanea, Ahmad Almutlaq, Saud Alrumaih, Khalid Alfaleh

Introduction & Background: Vitamin D plays an important role in health and its deficiency has been shown to be associated with major childhood and adult diseases. Little research has been done to assess vitamin D levels in Saudi newborns. Objective: the main objective of our study is to evaluate vitamin D levels in Saudi newborns utilizing umbilical cord samples and to benchmark our status with international figures. Method: Vitamin D levels were assessed in umbilical cord of healthy term neonates born above 2.5 kg born to healthy pregnant mothers. Data with regard to gestational age, birth weight, gender, levels of sun exposure and consumption of vitamin D rich food were collected. Our primary outcome was the percentage of newborns with vitamin D level below 25 nmol/L (vitamin D deficiency). Logistic regression for correlation of vitamin D deficiency and level of sun exposure and consumption of vitamin D rich food was performed. Result: Umbilical samples of 200 newborns were obtained. The average birth weight was 3.2 kg. Deficient vitamin D levels were detected in 59% of the sample. Almost 90% of included samples had levels below 50 nmol/L. We found no correlation of vitamin D levels to level of sun exposure or consumption of vitamin D rich food. Discussion: Our data is consistent with the published literature in Saudi, 30 years ago at which 68% enrolled neonates had vitamin D levels below 25 nmol/L.15 Our results are consistent with other regional reports; in Kuwait, for example, 69.7% of the 214 infants that were recruited in a study in 2005 had 25 OH vitamin D level of less than 25 nmol/L. Conclusion: Severe vitamin D deficiency is very common in Saudi newborns and is consistent with regional data. Efforts to assess and treat vitamin D deficiency during pregnancy and provide adequate supplementation to newborns are necessary to rectify such a serious public health concern.
Low Frequency of ETV6-RUNX1 Fusion Oncogene and Its Strong Association With Day-14 Remission in Saudi Arabian Pediatric Acute Lymphoblastic Leukemia Patients Shows Ethnic Differences in Genetics and Disease Biology of Leukemia

Presenter:
Mohammed farhan alanzi

Authors:
Mohammed AlAnzi, Eslam Bahnas, Dr Khaled Aljamaan MD FRCPC2, Dr Zafar Iqbal MPhil PhD

Introduction& Background: Leukemia is the cancer of blood which originates in bone marrow. Pediatric Acute Lymphoblastic Leukemia (pALL) is the most common type of Leukemia Objective: We designed this study to find out frequency of ETV6-RUNX1 in pALL and its Association with laboratory parameters and treatment outcome. Method: Fifty-four pALL patients attending King Abdulaziz Medical City Riyadh (2006-2011) Were included in the study. Laboratory parameters, treatment outcome and ETV6-RUNX1 status (Using interphase-FISH) were studied. Data was analyzed using SAS version 9.2 (SAS Institute, Inc., Cary, NC). Result: Male to female ratio was 1.57:1 (33:21). Frequency of B- and T-cell ALL was 87% (47/54) and 13%(7/54) Day 14 as compared to 9% ETV6-RUNX1-negative patients with no remission (5% or more blasts) at Day 14. Discussion: Under-representation of ETV6-RUNX1 in Saudi pALL patients as compared to European countries, North America, Australia and Japan (25-33%) shows ethnic differences in genetics and disease biology of pALL worldwide. Conclusion: Our findings are in accordance With studies from Pakistan (10%), Egypt (11.6%) and India (5-7%) Careful analysis shows higher frequencies of ETV6-RUNX1 in more industrialized countries like Europe, US, Japan and Australia, probably due to more industrial pollutants or westernized lifestyle as compared to South-east Asia and Middle East. Study has very important implications in future cancer Management strategies in the kingdom.
Experiences of Occupational Therapists in The Management of Stroke Patients at King Abdul-Aziz Medical City – Riyadh

Presenter:
Nawaf A. Alkraidees

Authors:
Nawaf Alkraidees; Meshal Almaghrabi; Prof. Saleh AlOraibi

Introduction: Understanding demographic characteristics of patients is necessary in order to assess patients’ needs, to improve the quality of life of patients and their caregivers and to develop new services for stroke survivors. There is lack of information about occupational therapy (OT) services for stroke patients in hospitals. Aim: aim of this study was to look at the role of occupational therapists (OT) who manage stroke patients in Saudis’ hospitals. Methods: A descriptive cross sectional study design was used to collect data from OT who works at KAMC and retrospective design was used to collect stroke patients’ data from medical records. The data collected using a questionnaire, which was developed following discussion with experienced occupational therapists, and following comprehensive review of stroke related literature. Results: Records of 27 stroke patients who admitted to KAMC over 6 months period was reviewed. The stroke patient cohort included 66.7% men and 33.3% women. The mean age for both gender was 61.07±14.369. The percentage ischemic strokes was 85.2%, and 14.8% were hemorrhagic. High blood pressure was the most risk factors (85.2%) and diabetes (63%). For therapists, they use new approach of treatment for example, 57% of them used constrained Induced method in their practice. The majority of therapists’ participated in continuing education ( 85.7%). Type of continuing education was 86% attend seminars/conferences. 57% of them rarely read professional literature on CVA/stroke. Discussion and conclusion: This study provided insights into specific characteristics of stroke patients in hospital before discharged from hospitals. There was missing information in patients’ records, which made it difficult to calculate important epidemiological data, which is necessary to plan for and provide better services for patients. This study has demonstrated the need for further research with larger maple size and to be conducted in multi centers.
Energy Drinks Consumption Among Adolescents Resident in Riyadh

Presenter:
Afnan Mohammed Bin jabal

Authors:
Afnan Mohammed Bin jabal, Asrar Sayar Al Enezi, Dr. Hala Saied

Introduction & Background: Adolescent is a period of rapid growth and development, which occur between 10 to 19 years of age. This period of time distinguish oneself by physical, psychological, socio-cultural and spiritual development. Adolescent health contributes to adult health, as many health problems developed during adolescent can be continued to adulthood (Jaskiewicz MG 2009). So, adolescent health is an important component of community health (Jaskiewicz MG 2009). In this recent period there are a lot of teenager who used a lot of energy drinks. Males are more likely than females to use energy drinks frequently (Issue 2013). The first energy drinks was in 1960 done by pharmaceutical Taisho in Japan makes the first drink specifically to increasing energy that’s his target. Then the energy drinks Introduced to America in 1997. The “Monster” Energy Drink created by Hansen Natural in 2002. Washington is the first state start to avoid energy to persons under 18 years old in February 2013. There are a lot of adolescent start to drinks energy drinks in KSA like Red bull, Codered, Bison, and PowerHorse. In 3 March 2014, KSA avoided to sell the energy drinks in the supermarket. Objective: The aim of this study is to assess the effect of using energy drinks on the teenager’s health at Kingdome of Saudi Arabia (KSA).

Method: A descriptive, cross sectional correlational design who used to answer the study research question. Result: The results divided to two parts: results related to the participants socio-demographic characteristics and the other for the answering energy drinks knowledge questions. Conclusion: A convenience samples of 200 adolescent age ranged between (10 to 19). Male and female included in the study. Participants of the study were recruited from schools and malls in Riyadh. The data were collected to utilize a structured self administered questionnaire which developed by the researchers in the presence of facilitator to translate the items of questionnaire. The aim of this study is to assess the effect of using energy drinks on the teenager’s health at Kingdome of Saudi Arabia (KSA). The participants who participate in these study attitude well and help to complete the questionnaire clearly. (8.5%) didn’t has the correct knowledge among the energy drinks, because they think the energy drinks give them good supplement. Parents or caregivers should be very aware for the effect of energy drinks on adolescent, And providing health education program to adolescent on the house and school.
Characteristics of Mandibular Parameters in Different Age Groups. A CBCT Assessment.

Presenter:
Bayan Abdulrahman Al Asmari

Authors:
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Introduction& Background: Recently in dentistry we can easily evaluate the morphology, position, shape, size and the variation in several anatomical structures by using Cone-beam computed tomography. A normal variation occurs with age, gender and between right and left sides. Objective: Therefore, the aim of this study is to evaluate different linear measurement in human mandibles and compare them to age and gender. Method: A retrospective study was conducted on CBCT examination taken from patients attended the oral diagnostic department at Riyadh Colleges of Dentistry and Pharmacy Between 2010-2015. Images of patients with history of trauma, dysplasia or orthognathic surgery were excluded. 408 hemi-mandibles were evaluated ranging in age from 18 to 75 years for the location of: Condyle, Coronoid, Gonion, Menton. Result: Compared with the increasing of age, a negative correlation was found in the coronoid length and gonion angle and positive correlation was found with the coronoid length. When the readings were compared against age, a significant difference was shown in all linear measurements, except the angle of the mandible. All the linear measurements were statistically significant when compared against gender. All the samples didn’t show any Asymmetrical changes between the Right and left side. Discussion: The difference in linear measurements between genders came in agreement with a cadaveric study done in mandibles. Gender showed to play a major role in the changes of the mandible dimension, which can be explained by the relative development of the musculoskeletal system. Our study came in disagreement to a previous study showed significant changes in the symmetry. Conclusion: Within the limitation of this study, the changes in the mandibular liners measurements are not correlated to the changes of age except for the mandibular length. Further studies are needed to evaluate the cause of these changes.
Mothers’ Knowledge and Practices Regarding Their Children Dental Problems

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Background: The first two years in a child’s life are critical regarding teething. They are responsible for dental problems if not have been taken care of properly. Parent should educate themselves about how to take care of their children’s teeth in order to prevent a lot of oral diseases.

Objectives: To improve mothers’ knowledge about their children dental health, emphasize on the importance of children’s dental health and minimize dental health problems in adulthood.

Method: A descriptive research was carried out among a convenient sample of mothers in Saudi Arabia, Riyadh. A questionnaire requesting personal information of mothers and their children, knowledge of oral health, teething, dental problems and oral hygiene practices was administered.

Results: The majority of mothers documented teeth decay of their children, only 38% known what is gingivitis, 88% of mothers went to the dentist when their children had a dental problem, nearly half of mothers confirmed that regular dental checkups are important but most of them did not went. Discussion: Regarding the causes of teeth decay, we found that the majority of mothers are aware of them. On the other hand, almost half of the mothers do not know about the causes of Gingivitis and teeth pulling. It is a serious matter because they are common dental problems among children. Moreover, the causes of teeth discoloration are ambiguous to more than half of mothers. In addition, a regular dental checkup is crucial in the oral health care but 49% of the participants’ children do not visit their dentists unless in emergencies. Mothers are not aware of the importance of regular dental checkups. Conclusion: The current study recommend for mothers to visit the dentist regularly for early detection and treatment of dental problems.
Introduction & Background: Women have always had the desire to eradicate excess body hair in our community. The options for hair removal are plenty. Laser hair treatment is one of the ways that was developed to remove excessive body hair permanently but there are some guidelines that patients should follow during laser hair therapy such as shaving before the next laser session and not plucking the treated area, in this research we figured out if there is a difference between shaving and plucking in laser therapy of the armpit hair. Objectives: To compare percentage of hair reduction in a given area (outcome of measurement), using shaving versus wax plucking in hair therapy among healthy adult female KSU staff in KKUH dermatology clinic 2013-2014. Methodology: Pilot Quantitative Experimental Clinical trial, 30 volunteers were recruited to enroll in this study and scheduled for appointments in Dermatology clinic at King Khalid University Hospital in Riyadh for armpit hair removal by laser in both sides and before applying laser, one armpit was shaved in one side, the other side was plucked. Three sessions of laser were done every two weeks to one month then we compared the results in both armpits for each patient after a month and 6 months post last session. Results: The right and left armpits, both show significant hair reduction when comparing the hair count before the first session and the hair count after the third laser session, which is an expected result of laser effect on hair. Statistically the difference between the two means is not significant with p-value of 0.44. Discussion: Previously the idea to shave the area and not to pluck or wax it was to keep the hair shaft inside the skin to absorb the laser energy and destroy the hair follicle. But with this study we think that hair shaft is not vital for laser efficacy. Therefore, laser hair removal might target the melanocytes of the hair papillae and the heat is absorbed by the melanocytes, so probably the heat will dissipate to neighboring stem cell of hair follicle leading to permanent reduction of hair follicles. Conclusion: The results of the present study statistically proved there is no significance between the two pre-treatment preparations.
INVESTIGATE THE INTERACTION BETWEEN P53 AND RETINOBLASTOMA DURING HSV-1 INFECTION

Presenter:

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Introduction & Background: p53 is a protein and it is crucial in multicellular organisms, where it regulates the cell cycle and thus, functions as a tumor suppressor preventing cancer. Rb is a protein and also functions as tumor suppressor protein that is dysfunctional in several major cancers. Objective: There are many proteins published that interact with p53 but not Rb. Because both of p53 and Rb are transcription factors, we hypothesized that these two proteins may interact together and exert transcriptionally control over HSV-1 gene expression or DNA replication. Therefore, in this study, we aim to investigate the potential interaction between p53 and Rb via a co-immunoprecipitation assay. Methods: In order to test our hypothesis we performed the following experiments: Transfection experiment, BCA protein assay, Co-immunoprecipitation, Western blotting, and Membrane stripping and re-probing with Rb to see if there is an interaction between the two proteins during HSV-1 infection or not. Result: The p53 band was detectable. And p53 band is slightly increased in lane4 and lane5. Which mean HSV-1 infection enhanced the interaction. The Rb protein was detectable in lane4 and lane5. Which indicate that there is interaction between p53 and Rb (Lane4). And we can see that after the HSV-1 infection the interaction between p53 and Rb is enhanced (Lane5). Conclusion: Our Co-IP result suggests that p53 interacts with Rb in HEK293 cells. And P53-Rb interaction can be enhanced by HSV-1 infection in HEK293 cells.