

Medical Students Forum MSF2016

In Conjunction With:



GulfThoracic

مؤتمر الخليج لطب وجراحة الصدر

DUBAI 2016

9-12 MARCH

Grand Hyatt Hotel, Dubai, UAE

PROGRAM BOOKLET

Conducted By:



Clinical Skills & Simulation Center

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INTRODUCTION

For the first time in *GulfThoracic* history, we introduced the medical student's forum that will deliver interactive sessions, state of the art skill stations and didactic lectures.

The Clinical Skills & Simulation Center at King Saud University is dedicated into promoting patient safety through the use of the latest evidence based practice guides and the latest technologies in the field of hands on training; it is delighted to take part in the *GulfThoracic* Congress 2016 to be held at the Grand Hyatt Dubai, UAE on 9-12 March 2016.

LECTURES

- » Emerging Respiratory Diseases
- » How to Read Chest X-Ray
- » Management of Sick Asthmatic Patient
- » How to Read ABG's
- » Competition in Medical School: I vs. We
- » Physical Intelligence: Whys and Hows for Medical Students
- » Interpretation of Pulmonary Function Test
- » Aspects of Life of a Medical Student: Unlock your Maximum Potential
- » How to Score Higher without Studying More?
- » Student Future Career Selection
- » Use of Social Media in Teaching and Learning
- » Starting a Research

WORKSHOPS AND SIMULATIONS STATIONS

- » Airway Intubation
- » Status Asthmaticus
- » Tension Pneumothorax and Chest Tube Insertion
- » Thoracentesis

FACULTY MEMBER



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SCIENTIFIC PROGRAM:

BANIYAS III | THURSDAY, 10 MARCH 2016 | MORNING SESSION | 08:30 - 12:50

CHAIRPERSON: WELCOME AND INTRODUCTION SAMI ALNASSAR

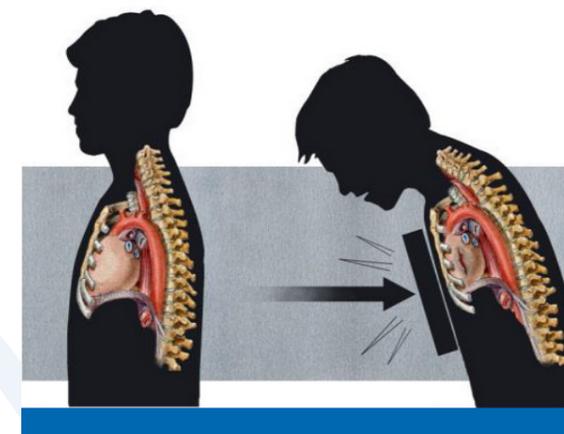
TIME	SUBJECT	SPEAKER
08:30 – 09:10	Emerging Respiratory Diseases	Mohamad AlHusaini
09:10 – 09:50	How to Read Chest X-Ray	Sami AlNassar
09:50 – 10:30	Management of Sick Asthmatic Patient	Yaser Al-Aska
10:30 – 11:00	COFFEE BREAK	
11:00 – 11:40	How to Read ABG's	Aref Malabarey
11:40 – 11:55	Competition in Medical School: I vs We	Reema AlAnazi
11:55 – 12:10	Physical Intelligence (Why's and How's for Medical Students)	Tasneem AlAhmari
12:10 – 12:25	Aspects of Life of a Medical Student (Unlock your Maximum Potential)	Leena AlAhmari
12:25 – 12:40	How to Score Higher without Studying More	Abeer AlSuwailem
12:40 – 12:50	Discussion Panel	
12:50 – 14:00	LUNCH BREAK	

WORKSHOPS AND SIMULATIONS:

THURSDAY, 10 MARCH 2016 | AFTERNOON SESSION | 14:00 - 17:00

HALL	AL MURJAN	AL DANA	AL MASA	AL MAHA
STATION	Airway Intubation	Status Asthmaticus	Tension Pneumothorax and Chest Tube Insertion	Thoracentesis
INSTRUCTORS	Abdul-Aziz Ijaz Mohamad ElHuseny	Yaser Al-Askaa Aref Malabarey	Sami AlNassar Feras Abureida Iftikhar Ahmadi	Waseem AlHajjar Salah Rahal
14:00 – 14:40	10 March - 14:00 (10)	10 March - 14:00 (10)	10 March - 14:00 (10)	10 March - 14:00 (10)
14:40 – 15:20	10 March - 14:40 (10)	10 March - 14:40 (10)	10 March - 14:40 (10)	10 March - 14:40 (10)
15:20 – 15:30	COFFEE BREAK			
15:30 – 16:10	10 March - 15:30 (10)	10 March - 15:30 (10)	10 March - 15:30 (10)	10 March - 15:30 (10)
16:10 – 16:50	10 March - 16:10 (10)	10 March - 16:10 (10)	10 March - 16:10 (10)	10 March - 16:10 (10)
16:50 – 17:00	Recap & Adjourment			

Chest Trauma Management Lecture



Mechanism of Injury Session Description

The purpose of this presentation is to provide the provider with the information necessary to determine the mechanism of injury and understand how this impacts the care of the trauma patient. Lecture presentation will be used to provide the participants with an overview of mechanism of injury and the injuries that trauma patients endure relative to the mechanism.

Purpose:

To provide the trauma care provider with the information necessary to assess, resuscitate and and/or assist with lifesaving interventions when applicable. Lecture presentation will be used to provide the participants with an overview of the “gold standard” measure used to initially assess and manage the trauma patient and the radiographic studies involved in the process.

To provide the trauma care provider with the information necessary to understand the pathophysiology of shock and how it impacts the trauma patient. Lecture presentation will be used to provide participants with an overview of the pathophysiology of shock, various types/classifications of shock and treatment modalities for the trauma patient.

To provide the trauma care provider with the information necessary to assess the chest, identify injuries and to assist with procedures and lifesaving techniques throughout resuscitation. Lecture presentation will be used to provide participants with an overview of chest injuries, radiographic studies/procedures used to diagnose injury and methods of treatment.

SCIENTIFIC PROGRAM:

BANIYAS III | FRIDAY, 11 MARCH 2016 | MORNING SESSION | 08:30 - 13:10

CHAIRPERSON: SAMI ALNASSAR

TIME	SUBJECT	SPEAKER
08:30 – 09:10	Student Future Career Selection	Prof. Hamza Abdulghani
09:10 – 09:50	Use of Social Media in Teaching and Learning	Yaser Al-Aska
09:50 – 10:30	Interpretation of Pulmonary Function Test	Prof. Omar A. Al Rawas
10:30 – 11:00	COFFEE BREAK	
11:00 – 11:45	Starting a Research	Prof. Hamza Abdulghani
11:45 – 13:05	10 Selected Students Abstracts (8 Minutes Each)	
13:05 – 13:10	3 Selected Best Students Abstracts Award	
13:10 – 14:00	LUNCH BREAK	

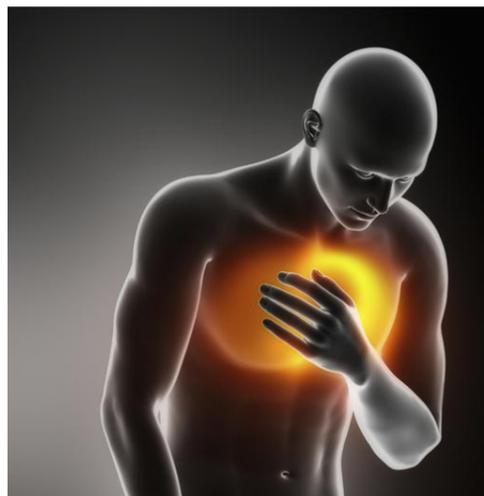
WORKSHOPS AND SIMULATIONS:

FRIDAY, 11 MARCH 2016 | AFTERNOON SESSION | 14:00 - 17:00

HALL	AL ITIFAQ	AL DANA	AL MASA	AL KHALEEJ
STATION	Airway Intubation	Status Asthmaticus	Tension Pneumothorax and Chest Tube Insertion	Thoracentesis
INSTRUCTORS	Abdul-Aziz Ijaz Mohamad ElHuseny	Yaser Al-Askaa Aref Malabarey	Sami AlNassar Feras Abureida Iftikhar Ahmadi	Waseem AlHajjar Salah Rahal
14:00 – 14:40	11 March - 14:00 (10)	11 March - 14:00 (10)	11 March - 14:00 (10)	11 March - 14:00 (10)
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15:20 – 15:30	COFFEE BREAK			
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16:50 – 17:00	Recap & Adjournment			

Objectives:

- Understand the effect of injury on society.
- Describe the risk for injury.
- Understand how knowledge of the mechanism of injury assists in patient evaluation.
- Compare blunt trauma injury patterns to penetrating trauma injuries.
- Describe injury patterns related to various mechanisms of injury.
- Initial Assessment and Management Course Description.
- Understand the priority of the primary survey in the initial assessment of the trauma patient.
- Discuss the systematic approach to identifying and treating injury in the trauma patient.
- Differentiate between airway interventions and ability to choose the appropriate method due to a trauma patient's condition.
- Identify warming measures during the initial assessment.
- Describe a head to toe assessment.
- Define shock.
- Discuss types of shock.
- Describe the four classes of shock and associated clinical signs and symptoms.
- Recognize clinical indicators for endpoints of resuscitation.
- Identify shock categories and their various presentations in the trauma patient.
- Explain the importance of "mechanism of injury" related to thoracic trauma.
- Identify treatments for thoracic injuries.
- Discuss the nursing management of patients with thoracic injuries.
- Discuss radiographic measures to diagnose thoracic injury.
- Develop a plan of care for the patient experiencing a thoracic injury.

**How to Read Chest X-ray****Purpose:**

To strengthen consultation skills and X-ray interpretation and provide theoretical underpinning for a range of commonly encountered radiographs. CXR lecture will provide a guided review of the anatomy of the thorax and demonstrate the radiographic image correlating to that anatomy. A sequential approach to chest radiographs will be demonstrated and practiced. Disease processes affecting the heart and lungs will be discussed, using visual correlations on radiographs. This didactic portion will be followed by hands on practice, with the actual films, demonstrating a wide range of pathology and some normal films for comparison.

Objectives:

1. Identify the radiographic landmarks on a chest radiograph.
2. Recognize identifiers of poor quality on the chest radiograph.
3. Outline an approach to interpretation of frontal or lateral chestradiographs.
4. Recognize the spectrum of common cardiovascular disease processes.
5. Recognize patterns of primary or metastatic carcinoma of the lung.
6. Recognize normal and abnormal placement of chest tubes and lines.
7. Technique:
 - Learn the difference between PA vs. AP CXR
 - Learn the utility of a lateral decubitus CXR
 - Understand the terms inspiration, penetration, and rotation as they apply to determining a technically adequate film.
8. Anatomy:
 - Learn the basic anatomy of the fissures of the

Who should attend?

- Medical Students
- Nurses
- Allied Health Staff

LECTURES

- lungs, heart borders, bronchi, and vasculature
- that can be seen on a chest x-ray.

9. Pathology:

- Learn the concept of atelectasis and the ability to recognize it on a chest x-ray.
- Appreciate the appearance of pulmonary edema and the differences between cardiogenic and non- cardiogenic causes.
- Appreciate the difference findings of atelectasis and pneumonia
- Recognize pleural effusions and pneumothorax appear on CXR
- Recognize the signs of COPD
- Recognize the signs of a benign pulmonary nodule online component
- Chest x-ray films

Who should attend?

- Medical Students
- Nurses
- Allied Health Staff

LECTURES

How to Select Future Career Choices for Newly Graduate Medical Students Lecture



Purpose:

The most important step to be taken for newly medical graduates is the choice of their specialties to carry out for their future practice. Studies have shown that early guidance of students is an important and beneficial for future doctors. This workshop is designed to guide our future doctors for their future careers.

Description:

It is an interactive session, which will start with exploration of the participants' concerns, problems and challenges in their future career choice. Some recent and important literature will be presented to highlight some important related issues for the topic. The workshop will include the discussion of the opportunities available locally and internationally

Objectives:

1. Identify the important factors for the future career choice.
2. Discuss the pros & cons of different specialties.
3. Discuss the rules and regulations of Saudi Communication for Health Specialties for postgraduate programs.
4. Identify the opportunities available at the national and international levels for different specialties for newly graduate medical candidates.

Who should attend?

- Medical Students
- Nurses
- Allied Health Staff

How to Start a Research Project for a Novice Investigator? An EvidenceBased Twelve Steps Approach for a Successful Research Path



Purpose:

In the era of evidence-based medicine, research skills are important and essential skills to be achieved by any health professional and particularly for future doctors. Novice researchers, who would like to start a study, need to understand the assumptions underlying various research techniques and they need to know the criteria by which they can decide that certain techniques and procedures. These important skills should be learned in stepwise approach by medical students, newly graduates or even any health professional who would like to become a researcher. This workshop will discuss such important skills and related topics.

Description:

It is an interactive hands-on session, which will start with highlighting some important concepts and principles for initiating a study. The participants will start with a stepwise approach from thinking a research idea, formulating research questions, research hypothesis, identifying research objectives and ending with a research proposal draft. The session will explore the participants' concerns, problems and challenges in conducting any investigation as a research project. Some recent and important literature will be presented to highlight some important related issues for the topic.

Objectives:

1. Identify a research idea to formulate and convert into research questions.
2. Search literature to explore more in the published data about their research topic
3. Select an appropriate study design for their project.
4. Prepare a draft research proposal for their research projects.
5. Discuss other steps to complete their research project in future.

Who should attend?

- Medical Students
- Nurses
- Allied Health Staff

Interpretation of Pulmonary Function Tests Lecture



Aim of Session:

- To outline the role of pulmonary function testing in the assessment and management of respiratory disease
- The student should understand and interpret pulmonary function tests, and understand their indications and limits.

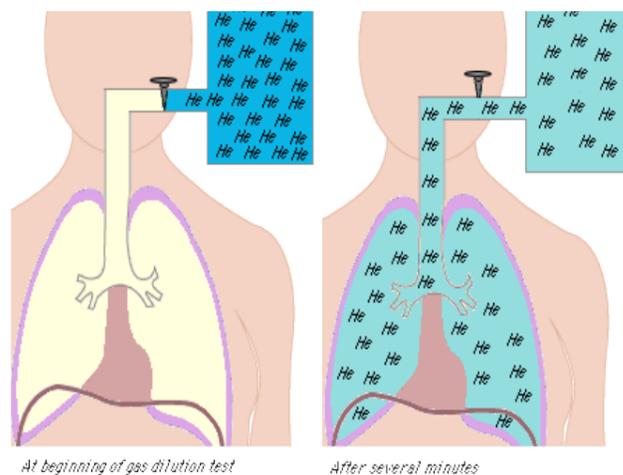
Learning Objectives:

By the end of the course delegates will be able to:

- Understand the role of clinical assessment in the diagnosis of disease
- Understand the changes in pulmonary function parameters that occur as a result of a variety of disease/disorders.
- To learn how to write a clinical report
- To be able to critically analyze test results
- To learn how to interpret lung function results and relate these findings to disease processes and or clinical diagnosis.
- Describe the pathophysiological changes in a range of respiratory disease.
- Discuss the role of pulmonary function tests to confirm or refute a clinical diagnosis of
 - Airway disease.
 - Interstitial Lung Disease
 - Rheumatic and Connective Tissue Disorders
- Outline the role of pulmonary function tests in monitoring the progression and effects of therapeutic interventions on:
 - Airway disease.
 - Interstitial Lung Disease
 - Rheumatic and Connective Tissue Disorders

LECTURES

- Be able to specify how spirometry is performed.
- Describe what a spirometer measures and be able to define the following terms:
 - vital capacity (VC)
 - Forced vital capacity (FVC)
 - Forced expiratory volume in one second (FEV1)
 - FEV1 /FVC %
 - Forced expiratory flow over 25-75% of FVC (FEF 25-75%)



Who should attend?

- Medical Students
- Nurses
- Allied Health Staff

WORKSHOPS AND SIMULATIONS STATIONS

Airway Management Simulation Station



Purpose:

To recognize, evaluate and treat the difficult airway patient through the proper selection and use of difficult airway equipment and procedures.

Learning Objectives:

- Recognize conditions that result in a difficult intubation.
- Plan an approach to managing a difficult intubation.
- Recognize and integrate basic difficult airway skills and use of specialized equipment.
- Receive practical training in a hands-on session.
- Learn the full range of airway management techniques - including use of video laryngoscopes & other advanced imaging devices.
- Use all of the airway devices in small group sessions.
- Practice decision-making and airway techniques.

Didactic and Hands-on Training

- Prediction of the Difficult Airway.
- Video Laryngoscopy and other advanced imaging devices.
- Medication-assisted Intubation (including RSI).
- Pediatric intubation.
- Endotracheal tube introducers.
- Cricothyroidotomy.
- Extraglottic devices.

Who should attend?

- Medical Students
- Nurses
- Allied Health Staff



Status Asthmaticus Simulation Station



Purpose:

The purpose of this station is to enable healthcare professionals to plan, deliver, and evaluate evidence-based preventative and therapeutic care for patients at risk for asthmatic attack and patients who have asthma.

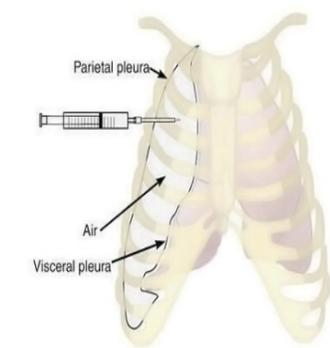
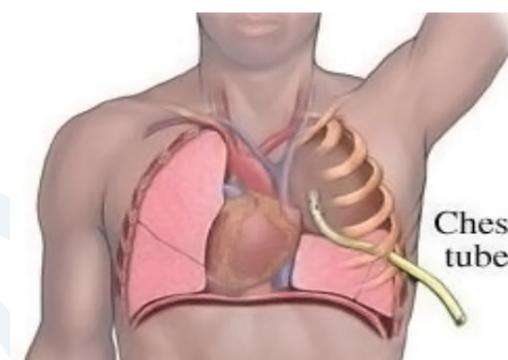
Learning Objectives:

- Define asthma and Status Asthmaticus.
- Review the epidemiology, pathophysiology, etiology, and contributing factors related to the development of asthmatic attack.
- List the signs and symptoms of asthma.
- Describe the diagnostic process and assessment of asthma severity.
- Review the pharmacologic treatments for asthma.
- Identify the elements of long-term and acute-term asthma management.
- Discuss the roles of respiratory, physical, and occupational therapy in the long-term management of asthma.
- Outline self-management, emergency, and inpatient management of asthma exacerbations.
- Discuss complications of asthma and asthma care for special populations.
- List different ways asthma is diagnosed.
- List the 3 primary pathologic reactions during an asthmatic episode.
- Recognize chest x-ray changes seen with asthma.
- Recommend the appropriate drug therapy of an asthmatic patient for chronic treatment or for an acute attack.
- Recognize the commonly used bronchodilator agents.
- List the side effects related to the different asthma medications.
- Appropriately manage the adult with impending or actual respiratory arrest with intubation and appropriate mechanical ventilation.

Who should attend?

- Medical Students
- Nurses
- Allied Health Staff

Tension Pneumothorax and Chest Tube Insertion



Purpose:

This simulation and skill station is to teach recognition of tension pneumothorax and a “Hands on” approach to chest tube procedure including insertion and management.

Objectives:

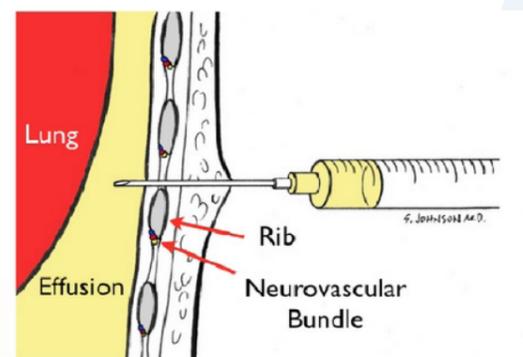
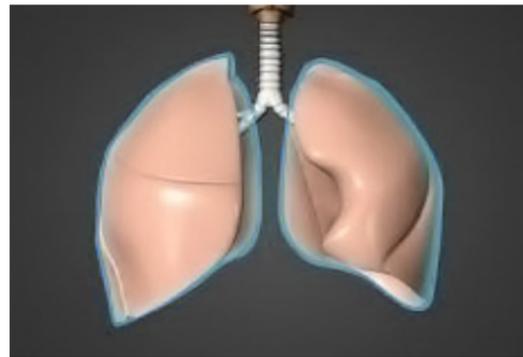
- Understand the physiologic responses a patient may have leading to the need for pleural chest tube placement.
- Understand the difference between a pleural, mediastinal and pericardial tube placement.
- Define pneumothorax, tension pneumothorax, pleural effusion, haemothorax.
- Describe the purpose of a pleural chest tube placement.
- Understand the purpose and function of each of the following within the chest drainage system: the suction control dial and window, the one way valve chamber with air leak meter, the fluid collection chamber, the negative pressure indicator.
- 6. Understand how to safely maintain a chest drainage system.
- 7. State potential risks for caring for a patient with a chest tube.
- 8. Apply the principles of safe care through proper monitoring and care of the patient with a chest tube
- 9. How to insert a chest tube with hands on practice

Who should attend?

- Medical Students
- Nurses
- Allied Health Staff

WORKSHOPS AND SIMULATIONS STATIONS

Thoracentesis



Purpose:

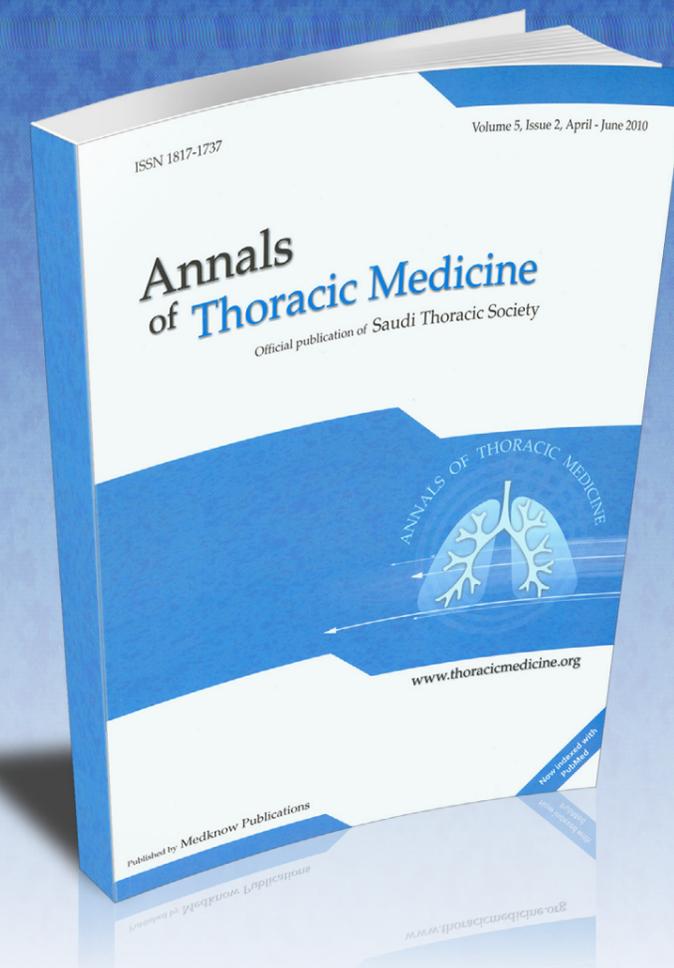
The Thoracentesis session will provide a demonstration of proper thoracentesis technique and allow time for hands on practice with task trainer

Objectives:

- Recognize the proper technique for thoracentesis
- Practice performing thoracentesis
- State indication, contraindications, and complications of procedure

Who should attend?

- Medical Students
- Nurses
- Allied Health Staff



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Prevalence of Stress, its determinants and coping strategies among Saudi medical consultants

Abdullah Ibrahim Saeed

Objective:

To determine the perceived stress among consultants in Saudi Arabia and its associated risk factors, including personal and work-related stressors, as well as coping strategies and the available plus wanted resources to cope with this stress among medical consultants in kingdom of Saudi Arabia.

Methods:

A cross-sectional study of all medical consultants registered at the Saudi Commission for Health Specialties, conducted between February and March 2015. We used a self-administrated questionnaire that included socio-demographic characteristics, associated other risk factors, including personal and work-related stressors. In addition, the authors assessed the likelihood of stress with the perceived stress scale (PSS) and stress-coping strategies using the 28-item brief coping scale (BCS). questionnaire sent using Perceived Stress Scale -10

Result:

582 consultants completed all the study scales. The mean age of the participating consultants was 46.9 ± 7.9 years. They were composed of approximately 71% males, 56% Saudi, and 93% married. The mean Perceived Stress score was 17.65 ± 5.36 represented approximately 44% of the test maximum score while 33.8% had PSS score ≥ 20 . Out of the socio-demographic and clinical characteristics, stress level was significantly associated with younger age, female gender and Saudi nationality. Consultants with the highest stress level had the highest maladaptive stress-coping scores. Perceived stress had significant negative correlations with the scores of active coping, positive reframing, acceptance, religion, and overall adaptive stress-coping strategies. Overall maladaptive stress-coping strategies were highly used among younger age, females, Saudi, non-married, those who had psychiatric illness, and those who sleep less than 6 hours per day

Wearing Glasses in Medical Students

Ahmed AL-Abdulsalam, Saad AL-Howaiml, Suliman AL-Aqeel

Background:

Myopia: means short sightedness. Light from a distant object forms an image before it reaches the retina. A myopic person has clear vision when looking at objects close to them.

Hyperopia: means long sight where the image of a nearby object is formed behind the retina. A hyperopic person may have blurred vision when looking at objects close to them.

Objectives:

1. Determine causes of vision problems in medical students.
2. Verify the relationship between myopia and student performance.
3. Describe hereditary myopia & hyperopia relation with IQ and student performance.

Material and methods:

1. Sample size (50).
2. Sample unit (third year medial students in Al-Imam University).
3. Data collection design (sample survey).
4. Data collection tools (questioner).
5. Data collection team (Imam medical students).
6. Software (SPSS).

Results:

The most GPA gathered from the participants was (4 to 4.49) with 40% , then (4.5 to 5) with 22%, (3.5 to 3.99) with 20%, (3 to 3.49) with 10% and the least was (below 3) with 8%. Most common cause of wearing the glasses was Myopia with 80% then Hyperopia 20%. 48% of the students got headache with wearing the glasses while 52% didn't. 75% of the students who participated in our study have family member with the same problem and the rest 25 % don't have.

Conclusion:

Our study suggests that people with myopia and wearing glasses they more likely to have a high GPA.

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

Ahmad M Al-Mohrej and Sajida Agha

Background:

Middle East Respiratory Syndrome (MERS) is a viral infection that is new in humans and causes severe acute respiratory illness which leads to death in 3-4 patients for every 10 with the infection. The first reported case of MERS was in Saudi Arabia in September 2012 of a man who was hospitalized in June 2012 because of pneumonia and an acute kidney injury. Soon later, a patient from Qatar, who had recently been to Saudi Arabia, had an acute respiratory syndrome and acute kidney injury with almost identical virus to that isolated from the first case. 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.

Methods:

This was a cross sectional study of male and female medical students in the clinical phase. Measurements included researcher-administered and self-reported validated questionnaire. Data were collected by paper questionnaire and Google Docs and analysis was done by using SPSS version 17. 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

Effect of Ramadan Fasting on INR level in Patients with Mechanical Heart Valves

Alghamdi. A, Kokandi. A, Alfadhil. R, Alotaibi. L

Background:

Life-long anticoagulation for patients with mechanical heart valves (MHV) is crucial. Monitoring the INR is mandatory to ensure a safe and effective therapeutic range. Many factors are known to influence INR level including medication and dietary non-compliance, both of which might occur during Ramadan. Objectives: This study aims to evaluate the INR stability during Ramadan in fasting patients who are using warfarin for MHV.

Methods:

Observational retrospective case-control study that compares patients' first INR reading during Ramadan with, at least two readings before Ramadan, using point-of-care testing.

Study was conducted between July 29th and August 20th 2015 at King Abdul-Aziz Cardiac Center, Riyadh after an ethical approval obtained from the local Institutional Review Boards committee. 114 consecutive patients who fit the inclusion/exclusion criteria were enrolled in the study. Data were collected from electronic patient records. A T-test was used to analyze the INR readings by Statistical Analysis Software.

Results:

Mean age was 48 years, with 58% being males. High targets INR range (2.5-3.5) constituted 65%. Mean overall INR level was 2.81 at baseline and 2.75 during Ramadan (P=NS). No significant difference was noted in relation to; duration of anticoagulation, warfarin dose, adherence scale or target therapeutic range. Patients with a lower target range (INR 2-3) were more likely to achieve and maintain optimal INR level before and during Ramadan (62.50% & 67.5% respectively) than those at a higher target range (64.86% & 51.35% respectively). Conclusions: Ramadan fasting has no significant adverse effect on the INR stability. Patients at a higher target INR range are more prone to INR fluctuations during Ramadan.

Recommendations:

It is generally safe to allow patients using warfarin to observe Ramadan fasting provided nearby close monitoring for high-risk individuals.

Impact of Discussing Cardiovascular Risk with and without Smoking Among Smokers Visiting Family Medicine Clinics on their Probability to Quit Smoking

Amr Jamal, MD, Abdulaziz Alonazy, Abdulaziz Alsuwailem, Abdullah Aldubai, Abdullah Alrajhi, Rayan Azuhairi.

Introduction:

Because of the strong relation between smoking tobacco and cardiovascular disease we focused to find a good way for smoking cessation.

Objective:

To determine the probability of smoking cessation among smokers after discussing the cardiovascular risk with and without smoking during family medicine clinic visits using Framingham score, in comparison with the traditional way of quit smoking advice.

Methods:

Convenience sampling controlled clinical trial conducted at family medicine outpatient clinics in two hospitals in Riyadh, Saudi Arabia. 64 participants involved in the study. They were randomized into two groups: Framingham score (experimental) and traditional (control) groups. Filtrated questionnaire was used for collecting data. The participants were selected randomly in the period from 1st December 2013 to 26th December 2013. There were three follow up sessions, once every two weeks.

Result:

The overall effect of the advice in the perception of the participants in the intervention group was on 13 patient (52%) and 19 patients on the control group (63%). The results showed that there was no significant difference between the intervention group and the control group which is 4 persons (16%) and 2 persons (6.6%) respectively who actually quit smoking (P-value= 0.251).

Discussion:

The study was conducted among males; we did not include the females because of the social barriers and community limitation. The sample is predominantly Saudi because most of the non Saudis prefer private hospital.

Conclusion:

As well known, smoking is a harmful habit and our aim should be for patients to quit this habit. We thought the Framingham score advice will be beneficial to smokers than the traditional advice, but the result showed no significant difference in smoking cessation (null hypothesis).

Acknowledgments:

Family medicine department in KKHU, prof. Hisham Abou-Auda

Factors that determine the choice of medical specialty and work environment among Saudi physicians: Results from a Cross-sectional survey

Amr Jamal, MD, Ibrahim Abunohaiah, Ibrahim Al-Furaih, Saud Al Sufayan, Mouhab Jamaldeen, Abdullah Al-Huzaimi, Abdulmalik Al-Duhaim

Objectives:

The aim of this study was to identify the personality traits, demographic factors, and environmental elements that influenced Saudi physicians' choice of their medical specialty during and after medical school.

Methods:

A national cross-sectional survey was emailed randomly to 1,249 practicing Saudi physicians registered in the Saudi Commission of Health Specialties. The web-based validated questionnaire contained 29 questions covering demographic factors, personality characteristics, career motivations, working load, practicing environment, financial income, life goals.

Results:

With a complete response rate of 30.7%, the mean age was 38 and 69% of respondents were male. The most common specialties were: surgery, general pediatrics, internal medicine, and family medicine. The most common period to choose specialty was during internship. Males were more satisfied with their jobs, along with those with a higher monthly income. The most common reasons for specialty choice were being the main interest area (76%), followed by scarcity of the specialty in the region (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. 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.

Conclusions:

The results of this research provided a unique perspective on the personality and demographic factors influencing specialty choice among Saudi physicians. Direct interest, gender limitation, financial income, social prestige played major role in specialty choice. Physicians judged different skills as important depending on the specialty. These findings can serve as an aid for medical students and their mentors on career choice decisions. deciding on their specialty.

Assessment of the Pattern of Aeroallergen Sensitization Among Patients Suffering from Airway Allergy/Fibrillation in Saudi Arabia

Alanood Asiri, Shatha Altahan, Shaza Almweisheer, Zahid Shakoor

Background:

Prevalence of airway allergic disorder is increasing worldwide and varies in different geographical locations.

Objective:

This study was performed to detect the pattern of aeroallergen sensitization among patients suffering from allergic asthma and allergic rhinitis who are undergoing allergy skin prick test for detection of aeroallergen sensitization at an allergy clinic at King Khalid University Hospital, Riyadh.

Methods:

A total of 113 patients suffering from airway allergic disorder undergoing allergy skin prick testing in the Allergy Clinic between December 2012 and March 2014 were included in the study. This group of patients included 63 (55.8%) females and 50 (44.2%) males with the mean age of 37+13 years.

Results:

The most frequently occurring sensitizing allergens in descending order were Cat in 54 (47.8%), Salsola in 40 (35%), Mesquite in 29 (26%), Bermuda grass in 26 (23%), Cockroach in 23 (20.4%), Lolium in 23 (20.4%) and House Dust Mite Dermatophagoides farinae (HDMF) in 22 (19%) patients. Skin prick test reactivity against Cat, Salsola, Mesquite, Bermuda grass and Lolium exhibited a significant overlap and were frequently observed to co-exist in a sizable number of patients with airway allergy. Whereas no gender differences were evident for the pattern of skin reactivity, cat and Salsola allergen reactivity was found to exhibit a seasonal variation.

Conclusion:

High level of aeroallergen reactivity detected in the present study emphasize the need for introduction and implementation of environmental control measures for avoidance of exposure to aeroallergens.

Key words:

Skin prick test, aeroallergens, airway allergy.

The Validity and Reliability of an Arabic Version of the STOP-Bang Questionnaire for Identifying Obstructive Sleep Apnea

Alanoud A. Alhedyani, Ahmed S. BaHammam, Alaa M. Alaqeel, Mashail M. Alowais, Ghaida I. Alobaid, Awadh H. Olaish

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.

Methods:

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).

Results:

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.

Diagnostic room-air pulse oximetry: effects of age, smoking, sex, respiratory rate, blood pressure and body mass index.

Ali Albshabshe, MD, Abdulaziz Mohammad Al-Garni, Abdulrahman Yahya Qatomah, Awdah Abdulrahman Alkhatami

Introduction: Rapid and accurate detection of hypoxemia is critical to prevent serious complications; morbidity and mortality in many hospital settings, including the intensive care unit (ICU), emergency department, procedure suite, and operating room. However, oxygenation is difficult to assess on the basis of physical examination alone. For determining oxygen requirements, pulse oximetry has virtually replaced arterial blood gas sampling.

Objective:

Relative to vital signs, our knowledge of pulse oximetry reference values in awake adults is limited. We sought to determine the distribution of oximetry (SpO₂) values in awake, asymptomatic adults and the effect of personal characteristics like smoking, sex, respiratory rate, pulse rate, blood pressure and body mass index on these values. The primary goals of our analysis were: (1) To describe the distribution of SpO₂ values in asymptomatic awake adults (2) To determine whether personal characteristics were associated with lower SpO₂ values.

Methods:

prospective cross-sectional study Using a cross-sectional design, we sampled oximetry readings in awake, asymptomatic adults who had no symptoms of acute cardiac or pulmonary disease and no history of emphysema or chronic obstructive pulmonary disease. We approached participants by inviting them to participate only if they were feeling in normal health. We excluded any who indicated they had any pulmonary symptoms. We specifically asked whether they had experienced any cough, shortness of breath, or chest pain, and we excluded any with affirmative responses.

Results:

We collected data from 338 people, from southern region; of them 75 (22.2%) were female and 263 (77.8%) were males (fig 1). The mean age was 29.6 years. Smoking status was distributed as, never smoked, 277 (82 %); previous smoker, 7 (2 %); current smoker 54 (16 %) (Fig 2). Room-air SpO₂ values less than 94% were only noted in less than 6 % of the asymptomatic volunteers. The statistical analysis showed there were no effects of age, smoking history, pulse rate, blood pressure, respiratory rate and body mass index on SpO₂ levels by room air pulse oximetry. But there were slightly higher SpO₂ levels noted for females (P-value 0.063). There were no female smokers in the study group.

Conclusion:

Room-air SpO₂ values less than 94% are rare in asymptomatic, awake adults. No effects of age, smoking history, pulse rate, blood pressure, respiratory rate and body mass index on SpO₂ levels by room air pulse oximetry.

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Knowledge, attitudes, and beliefs towards organ donation among social media users

Sarah AlDayel, Sarah Bin Abdulqader, Abeer Alfardan, Nourah Alzaidy, Waseem Hajjar

Objectives:

The main objective of this study is to determine the knowledge, attitudes and beliefs of organ donation and brain death among social media users living in Saudi Arabia in 2014-2015.

Methodology:

The study is cross-sectional which was conducted among social media users living in Saudi Arabia. The self administered questionnaires were distributed on various social media platforms such as twitter, Instagram, and WhatsApp. 1368 people took part in the study, only 913 met our inclusion criteria.

Results:

Most of respondents' age was between 18-29 years (61.2%) and living in central region of Saudi Arabia (64.5%). 518 (57%) had heard about organ donation through television, 460 (50%) through social media while 163 (17.9%) through the health care providers. There were 424 (46.4%) of respondents who knew that the religious fatwa allowed organ donation while 445 (48.7%) did not know. There were 383 (41.9%) respondents who knew that family consent is necessary even if the donor (brain dead) had a donor card. 466 (51%) of respondents were willing to donate their organs. 447 (49%) of respondents were not willing to donate their organs. When a person is brain dead 425 (46.5%) considered him/her to be deceased whereas 344 (37.7%) considered him/her to be in a coma but 144 (15.8%) did not know the meaning of brain death.

Conclusion:

A vast majority of the sample was well informed about the knowledge of organ donation. From the study, 51% of people would be willing to donate their various body organs. Nevertheless, a misconception of brain death was observed. The study showed that media can have a very huge effect on the knowledge of brain death and organ donation. Efforts towards making the public aware of organ donation and the religious legislation (fatwa) should be increased.

Assessment of Neurocognitive Impairment in Obstructive Sleep Apnea

Nazia Uzma, Ashfaq Hasan, Abid Ali Khan, Juhi Sultan

Content:

Obstructive sleep apnea (OSA) is a common medical condition with significant adverse effects but it remains undiagnosed in many individuals. To our knowledge very few data is available for Indian population and public health hazard of the condition continues to be seriously underestimated in this country. The present hospital based study assessed the prevalence, related clinical features, neurocognitive impairment and depression in the South Indian population. 100 untreated OSA patients and 50 control subjects of both the genders were included in this study. Each subject underwent a fully attended polysomnogram (PSG), modified OSA questionnaires, Mini-Mental State Examination (MMSE) was used for evaluation of cognitive impairment and Zung self-report depression scale was used to assess depressive symptoms. Among the study group 69% were diagnosed as having obstructive sleep apnea. The OSA patients were divided into three subgroups: 26% were having mild OSA, 16% moderate and 48% were having severe OSA (with respect to the AHI criteria). The mean \pm SD of apnea-hypopnea Index (AHI) was 10.2 \pm 3.1, 22.7 \pm 5.9 and 37.1 \pm 7.1 respectively. A significant decrease in MMSE score in OSA patients was observed in comparison with control. Orientation 3.2 \pm 0.8 was low in OSA patients whereas it was found to be 3.9 \pm 1.1 in controls. Memory (immediate and delayed recall), registration, attention and calculation skills, language and constructive praxis was observed to be 7.9 \pm 1.3, 2.2 \pm 0.6, 3.7 \pm 1.2 and 2.2 \pm 0.6 respectively in OSA patients which was found to significantly low in contrast with controls. A higher decline in depression score was observed in severe OSA patients when compared to patients having moderate OSA however no statistically difference in the depression score was observed between patients with mild OSA and controls. In summary, the results of this study provide compelling evidence that OSA is associated with cognitive decline and depression. Although hypoxemic stress and sleep disruption are likely the key players in the pathogenetic mechanisms behind such derangements, the role of an underlying common denominator needs to be scrutinized.

The Outcomes Of Patients Following Cardiac At A tertiary Hospital In Saudi Arabia.

Thamer Nouh, Sadeem Aldawas, Hayfa Alabdulkarim, Bayan Alnooh, Amjad Alshehri, Hadeel Alsaif.

Introduction:

In-hospital cardiac arrest is a critical and terminal event for some patients and a transient complication for many others. It is a stressful event for healthcare providers, patients, and family members. In 1960s, the effectiveness of closed chest compression was discovered (1, 2) and since then cardiopulmonary resuscitation (CPR) has been utilized as an effective intervention and became a standard for all hospitalized patients in cases of cardiac arrest.

Objectives:

The objective of our study is to measure the characteristics of in-hospital cardiac arrests at King Khalid University Hospital (KKUH) and to evaluate the outcome of those patients after the code and at 6 months.

Methods:

This was retrospective cohort study in which all adult patients who sustained a cardiac arrest at King Khalid University Hospital (KKUH) between January 2012 and December 2013 were included in the study. The code forms were reviewed according to the Utstein style.

Results:

We identified 426 patients who had a total 600 cardiac arrests during the study period at KKUH. Out of the 426 patients 260 (61%) were males. The mean age was around 58%. The most common initial rhythm was asystole/pulseless electrical activity in 37.8% of the codes. Return of spontaneous circulation (ROSC) occurred in 164 (38.5%). Survival to hospital discharge occurred in 67 (15.7%) patients. Six months survival was documented in 30 (7%) of the original cohort.

Conclusions:

The return of spontaneous circulation after a successful CPR is relatively good in comparison to what have been documented in other studies, but survival to hospital discharge remains poor. By providing patients and their families with this crucial information can enable informed decisions regarding resuscitation and DNR. The general outcomes reveal a serious low rate of survival to hospital discharge, which indicates the need for more attention and improvement

Outcome of Penetrating Cardiac Injuries in our Center

Mohamed Abdelaal MD, Ihab Moursi MD, Abdulaziz Mubarak Aljuhayim, Abdurhaman Furaih Alharbi, Humoud Owaidh Almutairi and Abdulrahman Rsheed Bin Swilim

Abstract:

Penetrating heart injuries is considered a challenging problem. Patients who reach the hospital alive require immediate resuscitation and excellent surgery. 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 < 90 mmHg. Nine patients (29%) were unconscious. The percentage of patients with SBP ≥ 90 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 patients outcome.

Key words:

Penetrating - Cardiac Injury Outcome.

Are Health-Related Tweets on Twitter® Evidence Based?

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Background:

Healthcare professionals are utilizing Twitter to communicate, develop disease surveillance systems and mine health-related information. The immediate direct users of this health information is the general public, including patients. This necessitates the validation of health-related tweets by healthcare professionals, to ensure they are evidence-based and to avoid the use of non-credible information as a basis for critical decisions.

Objective:

To evaluate health-related tweets on Twitter for validity (evidence-based) and to create awareness in the community regarding the importance of evidence-based health-related tweets.

Methods:

All tweets containing health-related information Arabic language, from 01 April 2015 to 05 April 2015, were mined from Twitter. The tweets were classified based on popularity, activity, interaction and frequency to obtain 25 Twitter accounts (8 physician accounts, 10 non-official health institute accounts, 4 dietitian accounts, and 3 government institute accounts) and 625 tweets. These tweets were evaluated by 3 American Board certified medical consultants and a score was generated (T=true, F=False) and inter-observer agreement was calculated.

Results

A total of 625 health-related Arabic language tweets identified from 8 physician accounts, 10 non-official health institute accounts, 4 dietitian accounts and 3 government institute accounts. The reviewers labeled 320 (51.2%) tweets as "false" and 305 (48.8%) tweets as "true". Comparative analysis of tweets by account type showed 60/75 (80%) tweets by government institutes, 124/201 (61.7%) tweets by physicians and 42/101 (41.6%) tweets by dietitians were true. The inter-observer agreement was moderate (ranging from 0.78 to 0.22). More than half of the health related tweets ((169/248 [68.1%]) from non-official health institutes and dietitian accounts (59/101 [58.4%]) were false. Tweets by the physicians were true compared to other groups.

Validation of the Arabic Version of Glasgow Benefit Inventory in Cochlear Implant-Patients

Bader Bander Alharbi, Hamad Nasser Alkanhal, Omar AbdulMohsen, Al-Omar, Omar Rayyan Barayyan, Prof. Abdulrahman Abdullah Hagr, Dr. Fida Al Muhawas,

Background:

Glasgow Benefit Inventory (GBI) is valid and reliable. It has been used to report changes in quality of life postthreptic intervention in Otorhinolaryngology (ORL). It has been translated to so many languages. However, there is no Arabic version of GBI yet.

Aim:

To translate and validate Glasgow Benefit Inventory (GBI) In Arabic. In addition, to compare the Arabic version validity with the validity of original questionnaire.

Methodology:

An observational, cross-sectional, Psychometric Validation study was conducted at Outpatient ENT clinics, King Abdul-Aziz University hospital, Riyadh, Kingdom of Saudi Arabia. Herein, the translation process was done by using the forward-backward method, and then questioner was distributed to all patients who underwent cochlear implant during the period between 18 June 2013 and 19 November 2014. Descriptive analysis, Internal consistency, and four dimensional factor analysis has been used to determine the validity.

Results:

The response rate was: (79%). The GBI items showed an acceptable level of internal consistency ($\alpha = 0.733$). The mean total GBI score and the range were 47.5, -2.78 to 83.33 (SD = ± 19.03), respectively.

Conclusion:

The present study suggest that Arabic version of GBI is a valid and reliable tool that can be used to quantify the effects of medical or surgical intervention on the quality of life in cochlear implant patients.

The Prevalence of Elevated IgE-level Among Asthma Patients (Adult and Children).

Amal Abdullah Zahrani, Amani Faleh Alhakami, Atif Saad Alamry, Bodour Saleh Alsalmi, Loie Tallat Goronfolah

Content: Objectives:

Atopic asthma is type1 hypersensitivity reaction which is mediated by IgE antibodies leading to airway obstruction. It is gene environment disease. Many studies show that there is correlation between elevated IgE levels in asthmatics compared with non-asthmatic. To our knowledge there is no local information to assess the atopy among asthma patients. The aim of the study is to measure the prevalence of elevated IgE-level among asthma patients adult and children at KAMC-WR.

Methods:

The study consists of two parts; Retrospective and Prospective. The records of patients with asthma included for manual systemic randomization. The total number of files were 443, out of them 204 excluded. The phone numbers extracted from their medical record and contact them to come and have their IgE-level. We ended up with 38 subjects. To achieve the target of the study, 62 subjects we obtained their information retrospectively.

Results:

100 subjects were included. About 54% of asthma patients in the sample have high IgE-level. The association between IgE categories (normal and high) and asthma control levels (well controlled- partially controlled- uncontrolled) is statistically significant with $p = 0.0021$. The association between IgE categories and age group (adult and pediatric) is statistically significant with $p = 0.0439$. Odds ratio of poor asthma control 0.158 with 95% CI (0.054-0.0008) which means high IgE levels the odds of asthma control decreases.

Conclusion:

The data support what was reported in the previous literature that high IgE-level can be predictor of poor asthma control and controlling it can be a way to control asthma.

To What Extent Arab Pilgrims visiting Mecca are Aware of Middle East Respiratory Syndrome Corona Virus (MERS-CoV) and the Protective Precautions against?

Meshaal Alotaibi, Abdulaziz Alsubaie, Khaled Almohamede, Omar Alharbi, Turki Alotaibi, Abdulrahman Aljadoa, Abdulaziz Alhamad, Mazin Barry

Background:

Middle East Respiratory Syndrome Corona Virus (MERS-CoV) is a new virus that was first discovered in Saudi Arabia in 2012 in Jeddah. Many cases of MERS-CoV have been confirmed worldwide. It is estimated that 1625 people diagnosed with MERS-CoV till January 2016. Around 80% of the cases have been discovered and confirmed in kingdom of Saudi Arabia (KSA). The risk of international disease spread is especially worrying given the KSA role as the home of the most important pilgrimage sites in Islam, which leads to the enormous mass gathering of the annual Hajj, and Umrah. As Ramadan is the holy month for Muslims in which most of them travelling to Mecca for Umrah, hence a large mass gathering occurs in Mecca which could increase the probability of infection diseases transmissions especially. This necessitates the need of assessing Arab pilgrims' awareness of MERS-CoV. Exploring their level of awareness about the disease can help in developing a better educational program if needed.

Methodology:

A cross sectional study was carried out during Ramadan 2015 (July 12) in the actually Holy Mosque in Mecca, Saudi Arabia. Self-developed and structured questionnaires have been collected conveniently from 417 Arab participants, both Saudi and non-Saudis. The questionnaire was found to be reliable with Cronbach's Alpha of 0.875. Permission and Ethical Approval to conduct the study was granted by King Saud University, Deanship of Scientific Research. Result: the knowledge about MERS-CoV was above average (52.56% out of 100%). Majority of the respondents were familiar about MERS-CoV (91.3%). More than half (69.9%) of the respondents did not receive any medical advice before doing Umrah. Saudis had a significantly higher knowledge about MERS-CoV compared to non Saudis (56.92 \pm 18.55 vs. 44.91 \pm 25.46, P=0.001). Female gender had significantly more knowledge about consanguineous MERS-CoV compared to male gender (55.82 \pm 19.35 vs. 49.93 \pm 23.66, P=0.006). The average knowledge was significantly higher in respondents who have received health advice on MERS-CoV before doing Umrah (56.08 \pm 20.86 vs. 50.65 \pm 22.51, P=0.024). With respect to stepwise linear regression, knowledge about MERS-CoV tends to increase by 14.23 (B=14.23%, P=0.001) for participants who were familiar with MERS-CoV and by 8.50 (B=8.50, P=0.001) for respondents who had perceived MERS-CoV as very serious disease.

Conclusion:

the overall knowledge was around average across different sample characteristics. The need of educational programs about MERS-CoV is demanding.

Measuring Acetaldehyde Quantities Released by Cancerous and Non-Cancerous Lung Cell Lines in Search for Volatile Biomarkers for Lung Cancer Screening.

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

Introduction:

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.

Objectives:

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.

Methods:

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 Selected Ion Flow Tube Mass Spectrometry (SIFT-MS), which can measure compounds down to concentration of part-per-billion by volume.

Results:

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.

Multiloculated Cavitory Lesion as a New Pulmonary Manifestation of Hodgkin's Lymphoma: Case Series

Yasser M Aljehani, Yasser El-Ghoneimy, Aisha M Al-Osail, Hind Alsaif, Emad M Al-Osail

Background:

Pulmonary involvement in Hodgkin's lymphoma is a very rare. Typically, it involves the superior portion of the lung. Pulmonary involvement in Hodgkin's Lymphoma can happen from 15% - 40% of cases. It is caused by peribronchiolar adenopathies near to pulmonary parenchyma or could be due to the significant amount of lymphoid follicles. Three cases were admitted to King Fahad Hospital of the University which showed unusual form of Pulmonary Hodgkin's Lymphoma. They did not show the most common radiological features described in other reported literature. Moreover, Pulmonary manifestation of Hodgkin's Lymphoma is usually characterized by single nodule, multiple nodule, single cavitory lesion or multiple cavitory lesions. Our Patients presented with multiloculated cavitory lesions which to best of our knowledge were never reported in the English literature.

Objective:

To enrich the literature of Pulmonary Hodgkin's Lymphoma by adding the multiloculated cavitory pulmonary lesion as a new pulmonary manifestation of PPHL.

Method:

Case Series and retrospective review of medical records for three patients with proven malignant Hodgkin's Lymphoma and diagnosed at King Fahad Hospital of the University between 2014 and 2015.

Case series:**Case 1:**

A 16 year-old male presented to the emergency department with chief complaints of fever, unintentional weight loss, a productive cough and pulmonary cavity for investigation. His chest X-ray shows a lung cavity lesion in the middle lobe with an air-fluid level and consolidation. The patient's CT scan indicated multi-loculated cavity lesions in the middle lobe with an air-fluid level and multiple enlarged mediastinal lymph nodes. Video assisted thoracoscopy and medianoscopy was performed and biopsy from the lung and mediastinal lymph node were conducted. Histology of the lymph nodes revealed a nodular sclerosing type of classical Hodgkin's lymphoma, positive for CD30, CD68, CD3, CD20 and LCA and negative for CD15 and CK.

Case 2:

A 21 years old female presented to the emergency department complaining of chest pain, fatigue, weight loss, sweating and cervical lymph node x-ray shows cavitory lesion in right lobe of the lung and CT Scan of the chest shows right cystic mediastinal mass. CT Guided Biopsy was done for cervical lymph node. Histology of the lymph nodes revealed a nodular sclerosing type of classical Hodgkin's lymphoma, positive for CD30, CD15 and negative for CD45, CD3, CD20.

Case 3:

A 29 years old female presented to the emergency department complaining of chest pain, shortness of breath, hemoptysis. CT Scan shows 4.4x4.6x6.3 cm mass lesion with central hypodensity and air is seen at the right anterior mediastinum at the level of the right hilum inseparable from medial part of the anterior segment of the right upper lung lobe and medial part of the medial segment of the right middle which shows sub segmental collapse with air bronchograms. CT Guided Biopsy was done for mediastinal mass and lung. Histology of the mediastinal and lung revealed a nodular sclerosing type of classical Hodgkin's lymphoma, positive for CD30, CD15 and negative for CD45, CD3, CD20.

Conclusions:

Our report confirms that multiloculated cavitory lesion is a pulmonary manifestation of Hodgkin's Lymphoma and can be the first presentation of the disease and it should be considered in the differential diagnosis of pulmonary cavitory lesions.

Knowledge and Attitude of Primary Care Physicians in Riyadh City Toward Sleep Medicine and Selected Sleep Disorders

Ahmed H.Saleem, Faisal Al Rashid, Ghassan Alkharboush, Othman Almazyad, Ibrahim AlNajashi, Aljohara Almeneessier, Awad H. Olaish, Ahmed BaHamman

Background:

Sleep disorders have serious medical complications such as increased cardiovascular and cerebrovascular morbidity and mortality and motor vehicle collision. In Saudi Arabia, approximately one third of middle-aged men and women who visit primary care clinics are at risk of developing OSA. Therefore, we conducted this study to assess primary care physicians' (PCP) knowledge and attitude regarding sleep disorders as they are the front line in the healthcare system.

Method:

Quantitative observational cross-sectional study was conducted in all 88 primary care centers under the Ministry of Health (MOH) in Riyadh, Saudi Arabia, during 2015. A combination of predesigned validated questionnaires were used to assess the study's objectives. Knowledge was assessed using "Assessment of Sleep Knowledge in Medical Education" (ASKME) survey. Attitude was assessed using MedSleep survey with other questions from a previously published paper.

Results:

74 of the 88 centers returned the questionnaires. Data from 223 primary care physicians were analyzed. The mean age of the participants was 39.9 \pm 9.6 years with an average clinical experience of 13.7 \pm 9.4 years and 112 (50.2%) were males. For the knowledge part, the mean total score for the ASKME questionnaire was 14.4 (48%). Majority 175 (78.5%) scored between 11 and 20. Knowledge score was significantly associated with older age ($p=0.039$) but not with gender. Among the participants, 46 (20%) do not know that sleep medicine is a distinct medical specialty. Only 75 (33.6%) had received some education or attended any lecture about sleep disorders and 87 (39%) have referred patients with a sleep disorder to a secondary or tertiary center for further management. In regard to complications of obstructive sleep apnea syndrome (OSAS), 149 (67.1%) acknowledged that patients with OSAS are at higher risk of experiencing motor vehicle accidents compared to healthy individuals. The recognition of other consequences was as follows: ischemic heart disease 58.1%, depression 62.6%, hypertension 57.7% and pulmonary hypertension 50%.

Conclusion:

Primary care physicians who were surveyed possessed poor knowledge regarding sleep medicine, which may prevent patients' access to proper health care. Education of PCPs about sleep medicine may increase detection of sleep disorders; hence, the provision of proper treatment and the prevention of complications.

Self-Reported Factors that Disrupt Concentration of Male Medical Students During Lectures at KSU, KSA (2014 - 2015)

Ashry Gad Mohammed, Hamad Aljutaili, Hussam Alorabi, Mohammed Aljarbou, Hossam Alshehri, Ibrahim Alqasir, Saud Alsalam

Objectives:

To determine the factors disrupting the concentration of male medical students during lectures in college of medicine at King Saud University.

Methods:

The cross sectional design has been used. The study included first, second and third year's medical students in King Saud University. A questionnaire has been developed to collect data. It was designed of four sections which were: the characteristics of the student (19 questions), lecturer (10 questions), lecture hall (10 questions) and student demographic. (Statistical analyses were performed using SPSS, version 22.0 (SPSS Inc., Chicago, IL, USA). Results were presented as numbers and percentages Mean and standard deviation has been used for age description).

Results:

Out of distributed 369, 298 (80%) completed the questionnaire. Students believe that they are vulnerable to a handful of factors that reduce their concentration during the lectures including Lack of sleep (90.2%), Class odor (bad smell) (88.6%), Lecture time is too long (88.2%), Illness symptoms (87.9%) and The lecturers lack of knowledge toward his subject (87.2%) respectively.

Conclusion:

Students chose lack of sleep as the most significant factor contributing to concentration disruption and a loudly speaking lecturer as the primary enhancing one.

Quality of Life and Satisfaction Rates of Patients With Upper Limb Hyperhidrosis Before and After Endoscopic Thoracic Sympathectomy in King Khalid University Hospital

Waseem Hajjar- Sami ALNassar- Heba ALSharif- Dana ALOlyet- Wejdan Sager- Alanoud ALHoqail

Background:

Hyperhidrosis is a functional disorder identified by excessive sweating. Its incidence is approximately 1% in any population. Endoscopic Thoracic Sympathectomy (ETS) intervention is the definitive treatment of choice for palmar and axillary hyperhidrosis.

Objectives:

The purpose of this study is to evaluate and compare the Quality Of Life (QOL) & satisfaction rates of patients with upper limb hyperhidrosis before & after ETS surgery, and the influence of compensatory hyperhidrosis on patients' QOL after the surgery.

Methods:

It is a cross sectional study design to generate longitudinal data pre and post ETS retrospectively. This study is conducted in the surgery department of King Khalid University Hospital in Riyadh, Saudi Arabia. Sixty-five patients with upper limb hyperhidrosis who underwent ETS from 2003 to 2015 were included. A modified QOL questionnaire for hyperhidrosis was completed over the telephone to compare the QOL for patients' pre and post ETS. Patients' satisfaction and the occurrence of Compensatory Hyperhidrosis (CH) were obtained post operatively.

Results:

A total of 36 patients completed the questionnaire; response rate was (57%). (80%) of patients had a positive QOL outcome after

the surgery. The mean decrease in QOL scores was (-43.7) points towards better QOL. The site of sweating had a significant effect on the QOL before and after the surgery (p -value=.044). The occurrence of compensatory sweating had no significant effect on the QOL after the surgery (p -value=.605). (72%) of patients reported high satisfaction rate (p -value=.006).

Conclusion:

Primary Hyperhidrosis can negatively impair QOL in different domains. ETS showed to be an efficient option to improve QOL and it provided short and long-term effectiveness for treating upper limb hyperhidrosis. Compensatory hyperhidrosis did not interfere with patients' satisfaction or QOL post operatively. Key words: Hyperhidrosis, Endoscopic Thoracic Sympathectomy, Quality of life, Compensatory Hyperhidrosis.

Osteoporosis: Knowledge and Preventive Measures among Premenopausal Women in Sharjah

Abu Hamdeh KH, Al-Shareefi SA, Boush NM, Jabbar HA, Mohamud AA

Background:

Osteoporosis is a skeletal disorder characterized by compromised bone strength, predisposing an individual to an increase risk of fracture (National Institute of Health [NIH], 2000). The lifetime risk that a 50-year-old woman will suffer osteoporotic hip fracture exceeds the total cumulative risk of suffering from breast, ovarian and endometrial cancers (Werner et al. 2003).

Objectives:

The aim is to determine the level of osteoporosis-related knowledge and preventive health among premenopausal women in Sharjah. Methods: A cross-sectional study was conducted in the Emirate of Sharjah during the academic year of 2013-2014. Self-administered questionnaires were distributed to females between the ages of 40-50 years old. The questions were related to knowledge of osteoporosis and its preventive measures and were given a score using OKT (osteoporosis knowledge test) (developed by Kim, Horan, & Gendler (1991)). The OKT is a twenty-four item tool consisting of two subscales addressing exercise and calcium intake. Some questions related to secondary preventive health practices were added.

Results:

The sample included 396 women. The mean score of their knowledge was 11 out of 22. 55.1% of the participants scored below the mean. 75.5% of the total sample do not take calcium supplements. One tenth of the total sample partake in adequate amounts of exercise from 20- 30 min 3- 4 times per week. Three quarters of the sample thought that osteoporosis can be prevented. Moreover, three quarters never checked if they have osteoporosis.

Conclusion:

Initial results show a lack of osteoporosis knowledge and a certain inadequacy in the preventive measures taken by premenopausal women in Sharjah. It's recommended that the health authorities work on raising awareness on osteoporosis and focus more on the education of premenopausal women about the disease. More research needs to be done to look at the prevalence of osteoporosis among premenopausal women in Sharjah.

Accuracy and Readability of Cardiovascular Entries on Wikipedia: Are they reliable learning resource for medical students?

Samy A. Azer, Jumana M. AlShammari, Lama A. Alshwairikh, Nourah M. AlSwaidan

Background:

There has been controversy about Wikipedia and whether it is a reliable learning resource for students.

Objectives:

To evaluate accuracy of content and readability level of English Wikipedia articles on cardiovascular diseases, using quality and readability tools.

Methods:

Wikipedia was searched on the 6 October 2013 for articles on cardiovascular diseases. Using a modified DISCERN (DISCERN is an instrument widely used in assessing online resources), articles were independently scored by three assessors. The readability was calculated using Flesch-Kincaid Grade Level. The inter-rater agreement between evaluators was calculated using the Fleiss κ scale.

Results:

This study was based on 47 English Wikipedia entries on cardiovascular diseases. The DISCERN scores had a median=33 (IQR=6). Four articles (8.5%) were of good quality (DISCERN score 40-50), 39 (83%) moderate (DISCERN 30-39) and 4 (8.5%) were poor (DISCERN 10-29). Although the entries covered the aetiology and the clinical picture, there were deficiencies in the pathophysiology of diseases, signs and symptoms, diagnostic approaches and treatment. The number of references varied from 1 to 127 references; 25.9 \pm 29.4 (mean \pm SD). Several problems were identified in the list of references and citations made in the articles. The readability of articles was 14.3 \pm 1.7 (mean \pm SD); consistent with the readability level for college students.

In comparison, Harrison's Principles of Internal Medicine 18th edition had more tables, less references and no significant difference in number of graphs, images, illustrations or readability level. The overall agreement between the evaluators was good (Fleiss κ 0.718 (95% CI 0.57 to 0.83)).

Conclusion:

The Wikipedia entries are not aimed at a medical audience and should not be used as a substitute to recommended medical resources. Course designers and students should be aware that Wikipedia entries on cardiovascular diseases lack accuracy, predominantly due to errors of omission. Further improvement of the Wikipedia content of cardiovascular entries would be needed before they could be considered a supplementary resource.

Chronic Venous Insufficiency: a Survey to Assess Physicians' knowledge in Bahrain Defense Force Hospital.

Lolwah Almulla, Dhafer Kamal, MD

Background:

Chronic venous insufficiency (CVI) is a well spread disease in the westernised world. The prevalence of Systemic CVI is in the range of (50-60%) in general population. Cosmetic reasons may be the main reason of approaching clinical care but CVI have implicit influence on patient's socioeconomic and quality of life (QoL). A Severe form of CVI may Cause chronic pain, disability and early retirement. There are established guidelines and recommendations on how to identify and manage CVI. The CEAP classification system was developed by the Society of Vascular Surgery (SVS) and the American Venous Forum (AVF) which is an accepted classification method of diagnosis and treatment options of venous diseases. Physicians need to combine both diagnostic experience and evidence-based guidelines to assess the severity of the disease and find the most suitable course of management. This will also help physicians to estimate the need of referral to a specialized vascular care unit. It is not known whether physicians other than those dealing directly with CVI and other vascular diseases are aware of this common condition in Bahrain Defense Force Hospital (BDF). Assessing physician's level of knowledge and their understanding of the recent guidelines and treatment option regarding CVI in BDF Hospital is the main objective of this survey.

Methods:

A questionnaire of 20 bivariate and 3 ordinal scale questions were distributed to 150 physicians working in Bahrain defense force hospital. The survey tests the knowledge on anatomy, signs and symptoms, diagnostic criteria and management options regarding CVI. 132 done the survey and 18 declined. Then the physicians were divided into three groups; 8 positive control (vascular physician), 49 referral group (General Practitioners, Gynecologists, Cardiologist, Orthopedic Surgeon, Emergency physicians, Interns of all departments) and 75 non-referral group (All other clinical departments).

Results:

The positive control group got a mean of (83.9%) for correct answers on basic knowledge questions, (76.8%) for referral and (70.6%) for non-referral group which was statically significant ($P=0.041$). For diagnostic questions the positive control group got a mean of (73.2%) for correct answers, (61.7%) and (63.3%) for referral and non-referral group respectively and it was statically insignificant ($P> 0.05$). The positive control group mean was (87.5%) for correct answers on treatment questions, (73.6%) and (67.7%) for referral and non-referral group respectively and it showed a static significance ($P=0.027$). The different levels of physicians showed significant difference in treatment questions; consultants got the highest mean of correct answers (86.7%) followed by interns (77.3%), junior residents obtained (70.6%), followed by senior residents with (67.1%) and chief resident (58.97%). No significant difference between different physician levels was found in both basic knowledge and diagnostic questions.

Conclusion:

Our survey shows that the physicians in BDF hospital are well informed in basic knowledge of anatomy and clinical features, diagnosis and treatment of CVI. The referral and positive control were better than the non-referrals. Interns and consultants scored the highest compared to the other levels of physicians. The time limit was not enough to conduct a more significant number of participants, indicating a need for further research to be conducted in the future on a larger population of physicians.

Asthma Education and Its Impact on Patient Management

Moayyad Malas, Essam Awadh Alhejaili, Raed Ahmed Alghannam, Ali Zarea Alshamrani, Amr S Albanna, MD

Introduction and objectives:

Education is a standard requirement for asthma management. Our objective is to evaluate the level of adherence to asthma education, and the impact of education on patient avoidance of triggers and proper use of inhaler medications.

Methods:

A cross-sectional interview of adults diagnosed with asthma in respiratory clinics of a tertiary hospital was performed during September 2014 to September 2015 by trained interviewers.

A standardized questionnaire and assessment form were designed according to the GINA guidelines. Patient knowledge about their disease, its irritants, and its medications and the technique of using their inhaler devices were assessed. Comparative analysis was performed using Chi-square test. Two-tailed P value of 0.05 defined the statistical significance.

Results:

82 patients were included. 70% of them were educated about asthma disease and only 44% were educated about major triggers (i.e. smoking, indoor irritants, outdoor irritants, cold and flu, and exercise). Adherence to measures required to avoid these triggers was significantly higher among educated than non-educated asthmatics. However, education about inhaler devices, which was performed in the majority (88.8%) of patients, did not improve their technique of using these devices. Patients were more likely to properly use the Diskus device (85%) than Metered Dose Inhaler (42%) and Turbohaler (52%) devices (P value: 0.003). Most of the education was performed by the patients' physicians during their clinic visits.

Conclusion:

Although most guidelines consider education essential for asthma management, almost half of our patients did not receive enough education. Education that was mostly done in the clinic by the treating physicians increased patient avoidance of asthma triggers but did not improve their technique of using inhaler devices. To achieve the standard requirement for asthma management, more comprehensive multidisciplinary approach that ensures enough education and proper use of inhalers may be necessary.

Liberation from Mechanical Ventilation- Simple, Difficult or Prolonged

Mohammed Hassan O. Alsomali, Farhan Al Enezi, Abdullah Al Mutfay, Mohammed Al Mutairi, Nesrin Al Harthy, 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.

Arterial and Venous Electrolytes in Pediatric Population- A Correlational Analysis

Mohammed Abdullah M. Al-Kthran, Farhan Al Enezi, Abdullah Al Mutfay, Mohammed Al Mutairi, Nesrin Al Harthy, 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 (nsidered 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.

Clinical Outcome of Extubation Failure in Intensive Care Patients**Abdulaziz Saleh S. Alrshaid, Farhan Al Enezi, Abdullah Al Mutrafy, Mohammed Al Mutairi, Nesrin Al Harthy, 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.

The Effects of Formaldehyde in Anatomy Lab on Students and Instructors during Dissection sessions**Mohammed Hassan Alahmari, Abdullah Sami Mirza, Abdullah Saeed Alzahrani, Mohammed Eid alqahmani and Mohammed Saeed Vohra****Introduction:**

Medical students and their instructors in anatomy lab are vulnerable to the harmful effects of formaldehyde (FA) because they are exposed to higher concentration of FA. Therefore at a known concentration of FA anatomy lab a cross sectional study was conducted.

Materials and Methods:

during 4th, 10th and 14th weeks of dissection sessions, a questionnaire consists of 27 questions regarding the acute allergic symptoms and psychological symptoms such as, runny nose, nausea, dizziness, visual disturbance, burning eyes, excessive tearing, shortness of breath, sneezing, pain in nose, cough, change of taste or smell, skin rash, headache and concentration loss was distributed to 320 subjects.

Results:

only 144 questionnaire were completed with response rate (48%) of students and (30%) of instructors. Comparing the various effects of FA exposure, the most significant results shows that 38% of subjects complains of runny nose 35% complained of burning sensation in their eyes. the rest of the symptoms were not significant.

Conclusion:

the symptoms are considered as irritative rather than allergic. Very few cases of skin rashes may attribute to the misuse of proper gloves and masks and good ventilation of dissection hall will help in reducing these symptoms.

Assessment of awareness, attitude and practice concerning voluntary blood donation among health professions students in Saudi Arabia.**Badir Aljasir, MD, Abdulrahman Abdullah Alghamdi, Mohammed Abdullah Alsalmi, Hani Mesfer Almalki****Introduction:**

World Health Organization advocates that 3-5% of the population should donate blood yearly. However, the donors in Saudi Arabia (SA) in 2011 was 416,133, which represented 1.46% of the Saudi population. The objective of this study was to assess awareness, attitude and practice concerning voluntary blood donation among health professions students in SA, in addition to the factors that influence their donation as well as university impact.

Methods:

The study was conducted in 2014 to 2015 academic year using a validated questionnaire that comprises of 41 questions. A number of 598 students were surveyed through online questionnaire. Multiple logistic regression analysis were used to identify the significant association of blood donation and influencing factors on practice, with the significance set at Pears was one of lowest causes (9.5%).

Conclusion:

The Saudi health professions colleges' role in promoting blood donation was notably missed. Students showed high willingness to donate blood if a blood camp was organized within the campus. The implementation of encouragement campaigns and educational sessions within the campus, that also address some of the false believes and attitude toward blood donation, seemed to have a great effect on blood donation.

Gender Differences in Asthma Quality of Life in Saudi Arabia.**Abdulaziz bin Saeed, MD, Armen Torchyan, Abdulelah Al-ka'abor, Abdullah Alrajhi, Majed Alshammeri, Muner Alshehri, Sa'd Khashoggi, Saud Alawad****Introduction:**

Asthma is a serious public health problem and can restrict patient quality of life physically, emotionally and socially. Our objective was to explore potential gender differences in the factors associated with asthma-specific quality of life (AQL).

Methods:

A cross-sectional study of consecutive series of adult patients with physician-diagnosed asthma attending pulmonology clinics at primary care centers of three major hospitals in Riyadh, Saudi Arabia, was performed. AQL was measured using a standardized version of the AQL questionnaire (min=1, max=7). Asthma control was measured using the asthma control test. Multiple linear regression analysis was performed.

Results:

Of 257 patients, who completed the questionnaire, 129 were males and 128 were females. The mean AQL was 4.3 (standard deviation [SD] = 1.5) for males and 4.0 (SD = 1.3) for females ($p = 0.113$). With each unit increase in asthma control, the AQL improved by 0.19 points (95% confidence interval [CI] = 0.14-0.23) in men and by 0.21 points (95% CI = 0.16-0.25) in women. Daily tobacco smoking was associated with a 0.72 point (95% CI = 0.14-1.30) increase in the AQL among males. Women who had a household member who smoked inside the house had a significantly lower AQL ($B = -0.59$, 95% CI = -1.0 to -0.19). A monthly household income of 25,000 Saudi Riyals or more was associated with a better AQL among men ($B = 0.51$, 95% CI = 0.01-1.01), whereas being employed exhibited a protective effect in women ($B = 0.48$, 95% CI = 0.11-0.84). Higher levels of perceived asthma severity were associated with better AQL in women ($B = 0.82$, 95% CI = 0.36-1.28), but no such association was found in men.

Conclusion:

Our findings demonstrate that gender-specific differences exist in the correlates of AQL, highlighting the need for further investigations of gender differences in asthma.

Prevalence of Thyroid Diseases in Adult Saudi Females Visiting King Khalid University Hospitals in Riyadh.**Sumbul Fatma, Jumana Mirah, Nada al-Shahrani, Nouf Alfalayyih, Basma Ogailan, Afrah Almituri and Rana W Hasanato****Introduction:**

Thyroid dysfunctions have recently increased and are considered as the commonest endocrine diseases. Diseases of the thyroid gland are common in adults and ethnicity and geographical locations do affect the prevalence of thyroid disorders. There are no published researches about the prevalence of thyroid dysfunction in adult female in Riyadh in Saudi Arabia.

Aim & Objectives:

So, the objective of our study is to study the prevalence of thyroid dysfunction in adult Saudi female subjects.

Methods:

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). The data analysis was performed with Graphpad Prism statistical software version 6. We performed students t-test, unpaired to calculate the significance of different variables.

Results:

Participants were selected randomly from King Khalid University Hospital. The mean age of the total 199 females participating in the study was 29.5 (Å±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. zWe did the biochemical investigations for all the participants in the study to check their Free T4, and TSH. For the previously diagnosed cases, the TSH and free T4 values came within the normal range, so they were euthyroid at the time of the study. In the remaining participants, who reported no thyroid related or any other type of illnesses, 5.5% females were found to have TSH levels significantly above the normal range and free T4 values were either normal or they were low for two cases. So, the prevalence of hypothyroidism was 15.5%. In our studied population we did not find any new cases with hyperthyroidism. We did not find any subjects with hyperthyroidism in the studied population. We did not find any significant difference in the age of females between the healthy and hyperthyroidism groups, but the hypothyroidism was significantly more common in the females with higher ages. The BMI also showed no significant difference between the different groups but the females with thyroid disorder showed a tendency to have a higher BMI in comparison to the healthy subjects. The systolic blood pressure(SBP) was significantly raised in the group with undetected hypothyroidism .

Discussion:

Our results are in line with the other studies reported from different countries. Nord-TrÅndelag Health (HUNT) study conducted in Norway with a total of around 10,000 participants showed 2.5% of females reported to have hyperthyroidism and the prevalence increased by age. The prevalence of hypothyroidism was 4.8% for females respectively. We also reported the prevalence of undiagnosed hypothyroidism as 5.5%.

Conclusion / Recommendations:

Thyroid dysfunctions are prevalent in our population and mainly affect the older females with most of the subjects having a family history of thyroid disorders. We found that hypertension and obesity are more common in patient with hypothyroidism. We did not find any subjects with undiagnosed hyperthyroidism probably due to the small sample size. We recommend to study the prevalence of thyroid dysfunction on a larger population.

Assessment of the Level of Knowledge about first aid among Undergraduate Medical Students in King Saud University.

Prof. Ahmed fathalla, Fahad Alotaibi, Khalid Alshahrani, Abdullah Alanazi, Awn Alqarni, Hamad Mohammed Aldosari, Nasser Abdullah Almoammar

Objectives:

1. To assess the level of knowledge about first aid among undergraduate medical students in King Saud University.
2. To compare the level of knowledge about first aid between the students along the five years of medicine in King Saud University.
3. To assess the difference in knowledge of first aid between trained and untrained students.

Methods :

A cross-sectional study has been conducted on a sample of 200 students from the five different years of the College of Medicine, King Saud University. Using the simple random technique with help of questionnaire, the data has been processed by SPSS analyzing system.

Results:

The mean score of the sample was 11.4 with 47% of the right answers. First aid trained students had higher mean scores than untrained students, fifth year students had better scores than any other year.

Conclusion :

Overall students had moderate level of knowledge about first aid. The inadequate knowledge about first aid among medical students might be related to the lack of first aid training courses implemented in the curriculum throughout the five years of Medical College and to the lack of interest of the students to participate electively in extracurricular first aid training programs.

Prevalence of Irritable Bowel Syndrome and its Association with Anxiety among Medical Students of King Saud bin Abdulaziz University for Health Sciences, Riyadh.

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

Background:

Irritable bowel syndrome (IBS) is a common medical disorder affecting the function of gastrointestinal tract. The relationship between psychiatric and gastrointestinal disorders such as IBS is well established which can aggravate their symptoms. Medical students being the future care givers nonetheless are the victims of stress and anxiety because of number of reasons including tough curriculum, different lifestyle, and busy schedules. That is why the prevalence of anxiety related IBS is higher among medical students compared to other students from other disciplines.

Objective:

The study focused on the prevalence of IBS among medical students of both genders currently studying from 1st year to 5th year in King Saud bin Abdul Aziz University for Health Sciences. And the association of anxiety with IBS among these students depending upon the academic year they are studying in.

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 the confidence level of 95% and margin of error at 5%. This sample was distributed amongst the study population using quota sampling based on the percentage of the students in respective years. For selection of participants, convenience sampling technique was used. Students were approached outside the lecture halls, college lobbies and studentÅs sitting rooms for the filling the questionnaires.

Results:

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

This study concludes that two third of medical students are having either moderate or severely high levels of anxiety. The overall prevalence of IBS was higher in female medical students with the 5th or the final academic year students having the highest percentage of IBS compared to other years. There was significant association between IBS and anxiety which was similar to other studies worldwide.

Primary Care Physicians' Assessment of Patients' Driving Eligibility

Othman Almazyed, Ghassan Alkharboush, Faisal Al Rashid, Ahmed H.Saleem, Junaid A. Bhatti 2, Aljohara Almeneessier, Awad H. Olaish, Ahmed BaHamam.

Background:

Motor vehicle collisions (MVC) are one of the leading causes for deaths and morbidity globally. In 2010, up to 50 million individuals were injured by road crashes worldwide. In Saudi Arabia (SA), approximately one person is killed and 4 others are injured every hour secondary to MVCs. Hospital records in SA have shown that 81% of all in-hospital deaths and 74% of paralysis cases are due to such accidents. Due to the significant burden of MVC's, primary care physicians' assessment of eligibility of driving in their patients is a pivotal step towards improving mortality and morbidity rates.

Methods :

All 88 primary care centers under the Ministry of Health in Riyadh city were surveyed. A self-administered questionnaire was designed to address the study's objectives. The following elements were analyzed: demographics of the sampled population, assessment of patients' driving history in their daily practice, identification of disease conditions that may influence driving and identification of red-flag symptoms.

Results:

Data from 74 centers (84.1% response rate) was available. Overall, 189 primary care physicians were included in the analysis. The mean age of the participants was 39.65 Å± 9 years, and 108 (57.14 %) were male. The average clinical experience of the group was 13.223 Å± 9 years. Approximately half of surveyed population report that they always assess driving history in patients with diabetes mellitus, obstructive sleep apnea or heart disease (45%, 46%, and 53% respectively). About 45% of primary care physicians do not notify any authority or relatives of potential driving issues noticed in their patients and only 7% notify traffic authority. Among the participants, 50% did not identify recent history of sleep-related crashes as a red flag symptom. Only 15% of the participants considered that primary care physicians' are responsible for alerting authorities regarding potential driving problems in their patients.

Conclusion :

Surveyed physicians did not adequately assess their patients' driving history and eligibility. Education and awareness regarding the importance of this topic needs to be promoted among primary care physicians.

Diabetic Retinopathy: Knowledge, Awareness and Practices of Physicians in Primary-Care Centers in Riyadh, Saudi Arabia

Raghad S. AlRasheed, Dr. Fadwa Aladel

Purpose:

To evaluate the current knowledge, awareness, and to assess practices among primary care physicians working in primary care centers in Riyadh, regarding Diabetic Retinopathy (DR).

Method:

We conducted a cross-sectional study covering 46 Ministry of Health primary care centers in Riyadh, Saudi Arabia during October 2015. A Self-administered questionnaire was distributed to primary care physicians containing 3 main sections. The first section focused on participants' demographics and professional background. The second section contained multiple-choice questions on knowledge related to diabetes and DR. A Score of one was given for each correct answer and zero for the wrong or did not know answers. The last section was to assess physicians' practices. Data was analyzed using SPSS version 21.

Results:

A total of 216 general physicians completed the questionnaire. The mean overall knowledge score for all the respondents was 57 ± 14 out of 100. Knowledge was significantly higher for physicians with >15 years of practice (59 ± 13 vs. 54 ± 15 , $P=0.04$). Male physicians scored better than females, 13% vs. 6.7% respectively scored >75. A defect was noticed in area of screening and follow-up of type 1 diabetes, only 24% of physicians correctly referred patients with type 1 diabetes to an ophthalmologist, whereas 71% referred patients with type 2 diabetes as recommended by the guidelines. Another defect area was detected in treatment options. Majority agreed on the use of laser photocoagulation as treatment. However, only 1/5 of participants were aware of the use of steroids and anti-VEGF as possible options. 65% of physicians claimed the capability of using an ophthalmoscope, 74% of them have examined their patients with it.

Conclusion:

Our study uncovered areas of defects in knowledge among general practitioners regarding diabetes and DR. Therefore; future seminars on diabetes emphasizing the proper ophthalmological screening and management of patients are necessary.

Effect of Knowledge and Beliefs on Adherence to Medication and Frequent INR Testing in Patients with Atrial Fibrillation in Saudi Arabia

Raghad AlRasheed, Reem Alsuwailem, Jaazeel Mulla

Introduction:

Atrial fibrillation is the commonest of all cardiac arrhythmias, routinely managed by lifelong oral warfarin tablets. Patient compliance to warfarin is a challenge faced by physicians due to its narrow therapeutic index. Complications of atrial fibrillation, as stroke and DVT, depend mainly on proper management and patient adherence to their medication. This study aims to assess the impact of both patients' knowledge and beliefs on adherence to anticoagulant.

Method:

This is a cross-sectional study using 3 validated, standardized questionnaires to evaluate the level of knowledge, adherence and beliefs of patients on warfarin; using the Oral Anticoagulant Knowledge test (OAK), Morisky Medication Adherence Scale (MMSA-8Å©) and the Beliefs about Medicines Questionnaire (BMQ) respectively. Data was collected via a telephone interview from patients on warfarin at least 3 months and attending Anticoagulation clinics in King Khalid University Hospital (KKUH) and National Guard Hospital (NGH) from November-April 2014. Data was analyzed using SPSS version 22.

Results:

The final analysis included 178 patients routinely visiting the anticoagulant clinics at KKUH 84 (47.2%) and NGH 94 (52.8%). Only a fifth of the participants reported high adherence to medication measured by morksky. Yet, 53% had good and moderate control over INR despite poor levels of knowledge (76.4%) as opposed to good knowledge (23.6%). However, as anticipated, half whose positive beliefs regarding anticoagulant medication were in the adequate TTR range.

Conclusion:

Knowledge and beliefs are important factors for adherence to medication in atrial fibrillation patients. The OAK and BMQ can be used to identify people at high risk for non-adherence. Improving knowledge and beliefs' of patients about their illness and anticoagulant use may positively influence overall adherence to medication.

Public Awareness and Attitude Towards the Hazards of Carbon Monoxide (CO) Poisoning Produced by Means of Heating and the Safety Precautions Applied to That Regard, Among Saudis for the Year 2013-2014.

Sara Abdulaziz Bin Haddab, Abeer Suliman AlShunifi, Afnan Nasser AlHemiddi, Abrar Hamoud AlLafi, Enas Fahad AlAraik, Ghadah R. Ahmed, Waseem Hajjar, MD

Background:

Carbon monoxide (CO) is a highly poisonous, odorless, colorless and non-irritating gas. It is formed by incomplete combustion of carbon or carbonaceous material. Because burning under conditions with insufficient oxygen will prevent complete oxidation to carbon dioxide (CO₂), carbon monoxide gas will be formed. When inhaled, it will prevent absorption of oxygen by combining with hemoglobin in the blood, forming carboxyhemoglobin which result in secondary tissue hypoxia and cellular damage, hence the name "silent killer".

Objectives:

Assessing public awareness, attitude, and understanding of the hazards of carbon monoxide (CO) poisoning produced by means of heating and the safety precautions applied to that regard, among Saudis using social networking, in winter season for the year 2013-2014

Methods:

A cross sectional study is going to be conducted online targeting, sample size of 634 Saudis from age of (16-50 years) who are using social networks, regarding: a)The hazards of CO poisoning, b)The safety precautions to prevent unintentional carbon monoxide poisoning

Result:

634 participants were asked to answer a twenty-two-question online survey. 475 participants proclaimed their knowledge of carbon monoxide (74.9%), although, carbon monoxide detector systems were only owned by the minority of them (1.7%). Most of the respondents 323(50.9%) whom are users of gas-fueled heating appliances don't get them frequently inspected by specialists. Similarly, 268(42.3%) get their cars' AC units inspected periodically, 182(28.7%) would sometimes do so, but 184(29%) would not check on the safety of the car's AC units. Correspondingly, participants who reported that they consider inspecting the home AC units were 247(39%), compared to those who never get them inspected 204(32.2%).

Conclusion:

Based on our results, this study shows that a large proportion of Saudis using social networks of age 16-50 years have enough awareness about carbon monoxide poisoning hazards and its manifestations, yet not applying the proper safety precautions to that regard, like not owing a CO alarm system nor doing routine checkups for their heating appliances. In comparison between age groups, older participants showed a higher level of awareness about CO poisoning than does younger. On other hand, this is not the case with the educational level, as we resulted that the higher the educational level(collage and above), the less knowledge obtained in regards to CO poisoning

Prevalence of Antibiotics misuse, And its Awareness among Adults in Upper Respiratory tract Infection

Waseem Hajjar, Sara Alkheib, Sarah Al-Mutairi, Nora Al-Refayi

Background:

upper respiratory tract infection is one of the most common infections, which is usually caused by viral etiology. Public knowledge, beliefs and attitude toward using antibiotics in URTI play an important role to develop antibiotic resistance and other adverse reactions.

Aim: To determine the prevalence of antibiotic misuse among upper respiratory tract infection patients.

Methods:

A cross-sectional study, 420 self-administrated questionnaire were distributed randomly to primary care visitors at King Khalid University Hospital, Riyadh. The questionnaire consists of 3 parts: demographic variables, knowledge, beliefs and behaviors toward antibiotic use in URTI. IRB committee approved the research proposal and both written and verbal consent had been taken from all respondents before answering the questionnaires. Data were analyzed using SPSS software.

Results:

Among the 420 questionnaires, 400 were completed, giving a response rate of 95.24%. Three demographical variables (age, gender, educational level) showed significant result. Among the participants, 48% were males and 51% were females. 37.5% were in the age group of 26-35 years (p -value.320), and 57.5% were well educated (college or over) (p -value.000). Around 70.3% of cases used an antibiotic recently (p -value .578). 45.5% of participants were using antibiotics without prescription (p -value.050). Regarding the prevalence, 30.61% of study participants' were misusing antibiotics. The majority of the participants' sources of information about antibiotics were from doctors and pharmacists.

Conclusion:

Participants in this study show lack in some important aspects regarding antibiotic use. They also show negative attitudes toward antibiotic usage. Results show that 70.3% of participants have recent antibiotic use. The majority of participants who show misuse were from age group 26-35, that makes them the main target for future awareness and educational programs to improve the knowledge, attitude and behavior toward antibiotic uses.

Comparison of Vital Signs Before and After Minute Walk Test Between Sickle Cell Disease Patients and Controlled Group in Eastern Population of Saudi Arabia

Author(s): Ali AlNass, Ali Al-Qambar, Adnan AlNasser, Hassan AlThabet

Background:

Sickle Cell Disease (SCD) is a genetic disorder characterized by mutated hemoglobin, the hemoglobin in Sickle cell patients are polymerized cells when they release oxygen resulting rigid cell membrane that lead to block blood flow causing tissue hypoxia,

Oxyhemoglobin desaturations reported in patients with SCD can be attributed to a low PaO₂, the Oxyhemoglobin dissociation curve shift to rightward.

Objective:

The aim of this study was to investigate physiological response in vital signs comparing between sickle cell disease (SCD) patient and controlled persons using six-minute walk test (6MWT). Methods: twenty patients male (average age 26 years) with SCD and twenty male matched control (average age 21 years) were studied. The physiological changes were investigated using 6MWT and vital signs monitor to determine the parameter before and after the test. Independent and dependent T test were used statistically. The significance used was set at (p=0.05).

Result:

Significance was seen when comparing SpO₂ before and after 6MWT in SCD group (P=0.000), while the significance for normal subject when comparing the SpO₂ before and after the 6MWT was (P=0.031). Significant value for HR before and after 6MWT in SCD and normal group (P=0.006). The significance of MAP was (P=0.000), before and after 6MWT in SCD group and the significance for MAP in normal group before and after 6MWT was seen to be (p=0.012). Also Borg scale significance was (P=0.026) before and after 6MWT in SCD group and for non SCD group the significance was (P=0.014). The 20 SCD group had a mean 6MW distance of 496.20 ± 51.27 m compared to 475.20 ± 57.49 m in 20 controlled group which was not significantly different (p=0.934).

Conclusion:

Sickle cell disease is a common serious genetic blood disorder in Saudi Arabia. Individual with SCD may exhibit significant changes in vital signs and borg scale more than controlled subjects when they are doing exercise, the distance walked in SCD patients observed more than controlled were not expected, significant change in vital signs and the Borg scale and hemodynamic parameter.

Prevalence of Fatigue and Depression among Commercial Airline Pilots in the Gulf Cooperation Council.

Tareq M. Aljurf, Awad H. Olaish, Ahmed S. BaHamam

Introduction:

Fatigue and depression among commercial pilots have proven to be significant factors affecting aviation safety. However, no studies have been conducted to assess the prevalence of fatigue and depression in one of the fastest growing markets in the world, the Gulf Cooperation Council (GCC).

Methods:

This study is a quantitative cross sectional study conducted among pilots on active duty and have flown during the past 6 months of two commercial airline companies. We included participants with age between 20 and 65 years. Data were collected using a predesigned electronic questionnaire composed of questions related to demographics in addition to the Fatigue Severity Scale (FSS) and the Hospital Anxiety and Depression Scale (HADS).

Results:

The study included 206 pilots from two GCC airline companies all of whom were males. The pilots had a mean age of 42.8 ± 9.4 years and a mean BMI of 28.3 ± 5.3. Of the study sample, 143 (69.4%) pilots had an FSS score (≥4) indicating severe fatigue and 77 (37.4%) had an abnormal HADS depression scores (≥8). One hundred nineteen (57.8%) pilots said that they felt so tired that they thought they should not be on controls a few times, and 138 (66.99%) reported themselves unfit for flight as a result of accumulated fatigue at least once over the previous 6 months.

Conclusion:

Fatigue and depression are prevalent among GCC pilots. Such problems require further assessment by aviation authorities to prevent problems previously experienced in other regions. New regulations mandating regular screening tests are needed to help manage these issues on the long run and ensuring a safer flight environment in GCC countries.

Prevalence of Obstructive Sleep Apnea and sleepiness among commercial airline pilots in the Gulf Cooperation Council.

Tareq M. Aljurf, Awad H. Olaish, Ahmed S. BaHamam

Introduction:

Obstructive sleep apnea (OSA) and sleepiness among commercial pilots have proven to be significant factors affecting aviation safety. However, no studies were conducted to assess their prevalence in one of the fastest growing markets in the world, the Gulf Cooperation Council (GCC).

Methods:

This study is a quantitative cross sectional study conducted among pilots on active duty and have flown during the past 6 months of two commercial airline companies. We included participants with age between 20 and 65 years. Data were collected using a

predesigned electronic questionnaire composed of questions related to demographics in addition to the Berlin Questionnaire (BQ) and the Epworth Sleep Scale (ESS).

Results:

The study included 206 pilots from two GCC airline companies all whom were males. The pilots had a mean age of 42.8 ± 9.4 years and a mean BMI of 28.3 ± 5.3. Sixty (29.1%) of the respondents had a high risk of OSA and the mean ESS score was 8.1 ± 4.0. Eighty-six (41.7%) pilots reported unintentionally falling asleep on the controls at least once without arranging that previously with their colleagues.

Conclusion:

OSA is a prevalent problem among GCC pilots and requires urgent attention and new guidelines for screening to help improve pilots' health and flight safety. Sleep medicine societies need to communicate with aviation companies to raise the awareness of the consequences of the OSA and hence the development and implementation of regulations and guidelines that govern systematic check-up and treatment.

Effect of Henna(mehendi) on Pulse Oximetry Reading

Ashfaq Hasan, Nazia Uzma, Usama Syed, Juveria Sultana

Content:

Pulse oximetry has now become a reliable tool for indirectly assessing the oxygen saturation in patients during critical care, anesthesia and surgery. Although it gives a reliable reading of oxygen saturation, it is also influenced by certain factors like complexion of skin, colour or dye applied to skin, nail polish, etc. Henna is a cosmetic dye that is made from special leaves (*Lawsonia inermis*), which grow in hot climates (North Africa, Asia and Middle East). It is very popular in Saudi Arabia, the Middle East, and Indian subcontinent and is used in dyeing the skin and hair. The purpose of this study was to determine the effect of henna on the measurement of oxygen saturation.

100 healthy females with a mean age of 19 ± 1.0 years and no complaints or known disease were included in this study. To all the participants henna was applied to the distal phalanx of left index finger (test) of the individuals and kept for 2 hours (in order to have uniformity and direct supervision) whereas right index finger was left empty as control. After 2 hours the henna was scrapped off from left finger and oxygen saturation and radial pulse was determined on both tested and control finger. Similarly, oxygen saturation and radial pulse was again determined on 2nd day as well as on the 7th day of application of henna on both tested and control finger and were statistically compared. In this study, the radial pulse was not changed after henna application even after 07th days (p value more than 0.05 in all the cases). However, the oxygen saturation was changed significantly from 90 min of henna application till 07th day. However it must be emphasized that an increase of saturation of this minor magnitude (average 0.67%) does not translate into a clinically important change. In general, in clinical statistics a change in oxygen saturation of >3% is considered significant. The results suggest that application of henna has a potential of causing minor error in the measurement of oxygen saturation by pulse oximetry. In these cases we recommend to use ear oximetry for accurate measurement of oxygen saturation.

Help-Seeking Behavior Among Adults In Riyadh, Saudi Arabia. A Cross Sectional Study

AlShammari Sulaiman Abdullah, AlShammari Waleed Khalid, Alhaidar Saleh Abdullah, Alotaibi Mazen Ayidh, Alanazi Abdullah Alrayed, Alsaahabi Hossam Khalid

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 trained medically. 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.

Methods:

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 using Google forms through Uniform Resource Locator (URL).

Result:

A total of 225 participants applicable and completed the study questionnaire. One hundred and ninety-one (71%) were female, and 152 (56.5%) were 30 years old or less. Psychological disorders have the highest percentage 65 (24.1%) while the second and third highest rate were for Ear, nose and throat (ENT) and Respiratory disorders by 37 (13.8%) and 36 (13.4%) respectively. Regarding types of health seeking services, majority of participants who complain of Gastrointestinal (GI) Disorders 18 (85.7%) went to a medically trained practitioner (pharmacists and medical doctors), followed by Respiratory Tract Disorders 25 (69.4%). The majority were unmarried 164 (61%); 191 (71%) had a university education or higher. The majority consulted a medical doctor (MD)

143 (53%), followed by self-help and relatives 100 (37%). 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%). Approximately half who prefer self and relatives help get perceived benefit and while the other half notice no difference. 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.

Conclusion:

(13.4%) of the complaints were respiratory disorders. While an earlier study in Saudi Arabia showed (18%) of the subjects seeking help with respiratory problems, which might link to the dusty environment and the smoking habits of the population. 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 help-seeking behaviors such as the influence of the internet on self-care.

Key Words (help-seeking behavior; Riyadh; Traditional healer; Pharmacists; Self Help; Doctors)

The Effect of Arabic Coffee on Pulmonary Function Test among Adults with Asthma

Amjad Al-Homaidan, Duaa Al-Dar, Rawan Al-Herz, Walaa Agil

Introduction:

Caffeine has a weak bronchodilator effect, it helps to reduce airflow limitation and it is chemically similar to theophylline which can be used to treat asthma. Several studies evaluated the effect of caffeine in general on lung functions, but this paper will primarily focus on the effects of Arabic coffee on lung functions among adults with asthma. The aim of this study is to find out if Arabic coffee works as a weak bronchodilator among asthmatic patients and to determine if there is a need to avoid Arabic coffee consumption prior to lung function test.

Methods:

Thirty patients between the age of 14 to 65 years old who have been diagnosed with asthma were included in the study to perform pulmonary function test (PFT). The patients were instructed to perform PFT three times and the best value was reported then drink one cup of Arabic coffee and repeat the test after 15 minutes. Wilcoxon's sign rank test was used to find out if there is an effect of Arabic coffee on lung function test parameters with the help of IPM SPSS 20

Results:

The result of pre-test and post-test of FEV1 and FEF25-75% showed a significant difference ($P=0.008$), ($P=0.01$) respectively. However, the effect may not be statistically significant when it comes to PEF ($P=0.25$) and FVC ($P=0.13$). Those included in the study were 30 participants after applying the inclusion and exclusion criteria. Twenty-one subjects (70%) of the study had an improvement in FEV1, 17 subjects (56%) in PEF, 20 subjects (66%) in FEF 25-75% and 19 subjects (63%) in FVC.

Conclusion:

The study concluded that Arabic coffee can work as a weak bronchodilator in adult asthmatic patients. Based on this finding, patients should be instructed to avoid consumption of Arabic coffee on the day of the pulmonary function test.

Key Words: Asthma, Arabic coffee, Caffeine, Pulmonary Function Test, Bronchodilator.

Would Indoor Air Pollution within Different Areas of Female Beauty Centers Influence the Respiratory Symptoms Differently among their Staff?

Hawra Al-Qudaihi, Fatimah Al-Qasim, Zahra Al-askari, Zainab Al-Fardan

Background:

Beauty centres' staff are exposed to various chemical products used in their work which include but not limited to Ammonia (NH₃), Volatile Organic Compounds (VOCs) and Carbon monoxide. These chemicals are shown to have a link with respiratory symptoms.

Aim:

The aim of this study is to compare the severity of respiratory symptoms between hairdressers and nail technicians and to assess the air quality within different areas of beauty centres in Dammam, Saudi Arabia.

Methods:

cross-sectional observational study was conducted in a randomly selected 14 beauty centres within Ad Dammam city (60% of the included beauty centres). A questionnaire on respiratory symptoms was distributed among hairdressers and nail technicians to assess the severity of respiratory symptoms. The quality of air was evaluated by three devices; Graywolf monitor, IAQ RAE and DustTrak. Descriptive tests (mean, median, standard deviation and percentile) and inferential tests (Shapiro-Wilk test and Kruskal-Wallis test) were applied to analyze the data statistically

Results:

Of the 79 subjects (40.5%) hairdressers, (17.7%) nail technicians and (41.8%) working in both areas. The percentage of the symptoms investigated were: dyspnea grade 2, 3 and 4 (5.1%), cough (6.3%), phlegm (10.1%), wheeze (5.1%), shortness of breath (1.3%), and undiagnosed bronchial asthma (10.1%). There was a significant difference in the prevalence of dyspnea grade 2 (P value=0.045) and wheeze (P value = 0.045) between the workers within different areas of beauty centres. The quality of air was assessed in hair, nail and mixed area. Pollutants that went out of range were Relative Humidity (RH), VOC, Carbon Dioxide (CO₂) and NH₃. There was no significant difference in any pollutant out of range within the three different areas (p value>0.05). VOC (p = 0.704), CO₂ (p =0.327), RH (p =0.205) and NH₃ (p =0.455).

Conclusion:

Hairdressers and nail technicians have signs of respiratory symptoms and there are some pollutants out of range so, good ventilation and using personal protective equipment is essential to lower the risk of developing the respiratory symptoms.

Keywords: beauty centres, air quality, respiratory symptoms.

Adequacy of Transthoracic Needle Biopsy Samples in The Diagnosis of a Peripheral Lung Lesion Comparing Success Rates of Various Imaging Modalities

Salem Abdullah ALshimemeri

Introduction:

Lung cancer is the leading cause of cancer related deaths in the industrialized world. According to the American Cancer Society, approximately 224,390 new cases of lung cancer will be diagnosed in the United States in the year 2016 and 158,080 deaths will be of lung cancer, accounting for 27% of all cancer deaths. Lung cancer is classified into two groups: Small-cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC). Squamous cell carcinoma, large-cell carcinoma, and adenocarcinoma are all classified under NSCLC. The diagnosis of lung cancer for patients with a peripheral lesion that require tissue diagnosis is established through transthoracic needle aspiration/biopsy as recommended by the American College of Chest Physicians evidence-based clinical practice guidelines [3]. The biopsy can be taken with imaging guidance of fluoroscopy, CT, or ultrasound depending on the site and position of the lesion, availability of the equipment, and preference of the operator.

Objective:

The aim of the study is to test whether a difference in imaging modality (CT, Fluoroscopy, or Ultrasound) would result in a higher biopsy success rate for the diagnosis of lung cancer.

Methods:

We retrospectively reviewed a total of 144 transthoracic biopsies performed under guidance of different imaging modalities at King Abdulaziz Medical city in Riyadh in the period (from 2008 to 2012). Data are extracted from the PACS system of the radiology department, all consecutive biopsies done during this period were included in the study, Core biopsies from the mediastinum or pleura are not included. A success is counted whenever a sample can be identified as "malignant" or "benign", and a failure is counted whenever a sample is of "inadequate size", or if "no diagnosis" can be made.

Results:

CT guided biopsies revealed 51 successes out of 86 total samples, fluoroscopy guided biopsies revealed 8 successes out of 20 total samples, and ultrasound guided biopsies revealed 30 successes out of 38 total samples. Comparing CT guided biopsies (51 successes out of 86) vs. Fluoroscopy guided biopsies (8 successes out of 20) the p -value = 0.1884 which clinically insignificant, 95% Confidence Interval [-0.07628, 0.46233]. When we compare CT guided biopsies (51 successes out of 86) vs. ultrasound guided biopsies (30 successes out of 38) the p -value = 0.05558 which is also clinically insignificant, 95% Confidence Interval [-0.38150, -0.011399]. where the comparison between ultrasound guided biopsies (30 successes out of 38) vs. Fluoroscopy guided biopsies (8 successes out of 20) the p -value = 0.007461

Evaluation of safety and efficacy of regional anaesthesia compared with general anaesthesia in thoracoscopic lung biopsy procedure on patient with idiopathic pulmonary fibrosis (IPF)

Waseem Hajjar, MD, Ghaida AlSugair, Alaa AlOqail, Shahad AlMansour, AlHaweel, KKHU.

Introduction:

Interstitial lung diseases are diseases that need taking lung biopsy to establish the diagnosis. Surgical biopsies are performed with general anaesthesia and thoracoscopic lung biopsy is still associated with morbidity rate. The aim of this study is to determine the effectiveness and safety of regional anaesthesia in compare with general anaesthesia in thoracoscopic lung biopsy procedures done on patients with idiopathic pulmonary fibrosis (IPF).

Methods:

This is an retrospective qualitative study based on adult cases of thoracoscopic lung biopsy on patients with idiopathic pulmonary

fibrosis (IPF) admitted in the division of Thoracic Surgery, Department of General Surgery, King Khalid University Hospital (KKUH), Riyadh, KSA. We included 67 patients with IPF (26 with local anaesthesia and 41 with general anaesthesia), who underwent this procedure during January 2008 to December 2015. Procedures performed under regional anaesthesia were done by three different approaches were intercostal nerve blocks, extra-pleural infusion and paravertebral block, while general anaesthesia was done by double-lumen endotracheal tube placement. For statistical analysis we will use SPSS software to analyse the obtained data.

Results:

After analysing the data of sixty seven patients underwent the procedure of thoracoscopic lung biopsy. Twenty-six of them (38.8%) underwent the procedure with the usage of regional anaesthesia, and forty-one (61.2%) done the procedure under the effect of general anaesthesia. The cross tabulation of the chest tube duration shows that the ICT days was significantly longer in GA (6.23 +/- 5.1 days) compared to RA (3.12 +/- 1.5 days), $p=0.004$. Regarding the relation between number of biopsies taken and type of anaesthesia performed, the probability values for GA as well as RA comes out to be greater than 0.05 (statistically independent) and the results of Risk Estimate also show that there is no significant association present between them. The cross tabulation of the representation of biopsies taken by the two methods shows that all biopsies taken under both settings are representative of the disease. Out of 41 procedures done under GA, 16 of the total showed a number of complications. Likewise, out of 26 procedures under RA, 5 cases showed complications. The Sig.(2-sided) value is ($p=0.110$), there is no statistical significance between the risks of complications and the two types of anaesthesia.

Conclusion:

There is significant decrease in chest tube duration in regional anaesthesia compared to the general anaesthesia. There is no difference between both types of anaesthesia in the number of biopsy, representation and complications. Based on this outcome, we can safely say that patient who need to undergo thoracoscopic lung biopsy but they are in a state where general anaesthesia is not an option due to their state of health can go through this procedure under regional anaesthesia with no added complication.

Prevalence of Restless Legs Syndrome in a large Sample of Pregnant Saudi Women

Ahmed S BaHamman, Yasser S Sabber, Mohammed I Alangari, Abdulmalik K Aldubayan, Abdulrahman M Alsharidah, Awad H Olaish, Aamer M Al Taki.

Background:

Restless legs syndrome (RLS) is a common sensory-motor disorder that disrupts a patient's ability to stay at rest during the late evening and early night hours, resulting in delayed sleep onset and sleep fragmentation. RLS is commonly associated with pregnancy, and the symptoms of RLS negatively influence the quality of life in pregnant women. Higher morbidity was reported in pregnant women with RLS such as threatened abortion, premature labor, difficult delivery, and intrauterine growth retardation. Only few epidemiological studies on the prevalence and correlates of RLS have been performed in large samples of a general population in different countries, however, none have been conducted in Arabs. Therefore, this study was conducted to determine the prevalence of RLS, and its correlates in pregnant Saudi women attending antenatal clinics using a validated questionnaire.

Methods:

In this cross sectional study, trained medical students administered the International RLS Study Group (IRLSSG) and the IRLSSG severity scale for RLS (IRLS) questionnaire to consecutive random sample of pregnant Saudi women (>18 yr) attending antenatal clinics in King Saud Medical City (KSMC). The used Arabic version of the questionnaire has been validated previously. Additionally, demographic data, and comorbid conditions known to affect RLS have been collected. Data was expressed as mean \pm SD. To assess predictors of RLS a univariate analysis was performed initially. Variables which were significant in the univariate analysis were entered into a multivariate regression model. Sample size was calculated to detect a prevalence of 6%. SPSS soft was used in the analysis.

Results:

The study group comprised 742 pregnant women with a mean age of 29.8 ± 5.6 years, a body mass index (BMI) of 29.8 ± 6.1 kg/m², and a gestational age was 27.6 ± 9 weeks. The prevalence of RLS among pregnant women was 43.4%. Seventy subjects (21.7%) had mild symptoms, 175 (54.3%) moderate, 74 (23%) severe and 3 (0.9%) very severe. Among the screened women who had RLS, 92 (30.2%) were primigravida, 158 (51.8%) grand and 55 (18%) multipara; 32 (10.5%) were in first trimester, 76 (24.9%) in second and 197 (64.6%) in third trimester. The risk of RLS significantly increases with advance gestational age and higher parity with a p-value of 0.004 and 0.010, respectively. RLS was associated with diabetes mellitus and anemia.

Conclusion:

RLS is prevalent among Saudi pregnant women, Obstetricians need to be able to identify, which is prevalent and is associated with considerable morbidity.

Do Medical Students at King Saud University Adopt Different Learning Approaches?

Rakan Almogheer, Ahmed Almarzuqi, Majed Aloriny, Omar Alharbi, Abdulaziz Jala.

Background:

Identifying the common learning styles of students can help the learning process. Different approaches of study lead to different academic outcomes.

Objectives:

to determine the learning approaches of 1st, 2nd, and 3rd year medical students at King Saud University and to assess the relationship between learning approaches of medical students and their socio-demographic characteristics.

Method:

The study was conducted at KSU in 2014, Collage of Medicine. An internationally developed questionnaire (Revised-Study Process Questionnaire) R-SPQ-2F had been distributed to 610 students of first (221), second (229) and third year (160) medical students of both genders to determine the learning approaches in foundation (first year), central nervous system (second year), medicine and surgery (third year) courses.

Results:

The mean score of Deep approach is significantly higher than Surface approach. Through all curriculums and study population, the mean scores of "Deep approach" are significantly higher in students who spend more hours (more than 3 hours) studying during non-exam time (Foundation block $F=3.48$; $p=0.033$, CNS block $F=9.95$; p

The quality of obtaining informed consent for invasive procedures and patients attitude towards it, King Khalid University Hospital, Riyadh, Saudi Arabia.

Rakan Almogheer, Khaled Almohaimede, Abdulaziz Al-Subaie, Turki Alturki, Abdulaziz Almuhann

Background:

informed consent is a process of providing patients with the necessary and realistic information in a manner, which they can comprehend and recall, and allows them voluntarily to make their own choice on their treatment. Yet, many doctors show malpractice in informed consent obtaining process, leading to unsatisfied patients with lacking of knowledge about their management nature.

Objectives:

To evaluate overall quality of informed consent for invasive procedure with regards to the information given and the extent of patients comprehension and recall, as well as their satisfaction towards its process and to assess patients' attitude towards practice of informed consent.

Method:

A cross-sectional observational study conducted in King Khalid University Hospital in Riyadh city on 138 patients using stratified sampling technique. A previously English validated interview questionnaire have been used to collect the data of our study which comprises of demographic and informed consent-related characteristics, experience and satisfaction with informed consent process and to information given about risks and alternative management options, and patients' attitude towards practice of informed consent. Data were analyzed using Statistical Package for Social Science (SPSS) software.

Results:

The overall quality of informed consent process $48.86\% \pm 25.40\%$, indicating poor quality. Patients were dissatisfied regarding their experience of informed consent process with % mean score = $53.38\% \pm 19.33\%$. More than half of the patients surveyed were told that their signature was just a routine. 50% of the patients wished that they were consulted by the physician before the decision was made, and 47.1% thought their own decision is not important because the doctor has already decided for them. Only around half of the patients were able to recall the risks that were told to them. The only significant factor that is affecting the quality of the informed consent process was whether the informed consent was explained by the physician or not ($t=2.199$, $P=0.030$). The overall attitude of patients toward the practice of informed consent indicate a positive attitude (% mean score = $69.7\% \pm 6.3\%$). 50% of the patients think it's rude to ask for a second opinion, and 39.1% agreed that they will lose the good relationship with the doctor if they refuse his decision.

Conclusion:

The current practice of informed consent process is below ethical standards. Further measures should be taken to improve that, like educating the patients about their rights, and training the physicians to meet the desired practice of informed consent taking. Further studies should focus on observing the actual process of informed consent taking.

Prevalence of Obstructive sleep apnea in a large Sample of Pregnant Women in Saudi Arabia

Mohammed I Alangari, Abdulmalik K Aldubayan, Abdulrahman M Alsharidah, Yasser S Sabber, Awad H Olaish, Aamer M Altaki, Ahmed S BaHamman

Background:

Obstructive sleep apnea (OSA) is defined as recurrent airway collapse or blockage resulting in repetitive, intermittent hypoxia and hypercapnia during sleep. Moreover, it contributes to sympathetic nervous system activation. Symptoms of OSA include snoring,

frequent arousal, gasping, apnea, and hypopnea. OSA is associated with low birth weight (LBW) and increased risks of fetal growth restriction, preterm birth, small for gestational age (SGA), cesarean section (CS), lower Apgar scores at birth, and preeclampsia. Limited epidemiological studies on the prevalence and correlates of OSA have been performed in large samples of general population in some countries; however, none have been conducted in Arabs. Therefore, this study was conducted to determine the prevalence of OSA, and its correlates in pregnant women attending antenatal clinics in Saudi Arabia using a validated questionnaire.

Methods:

In this cross sectional study, trained medical students administered the Berlin questionnaire (BQ) to a consecutive sample of pregnant Saudi women (>18 yr) attending antenatal clinics in King Saud Medical City (KSMC). The used Arabic version of the BQ has been validated previously. Additionally, demographic data, and comorbid conditions known to affect OSA have been collected. Based on the data collected and defined criteria, patients were stratified into high risk and low risk according to responses. Data were expressed as mean \pm SD. To assess predictors of OSA, a univariate regression analysis was performed initially. Variables which were significant in the univariate analysis were entered into a multivariate regression model. Sample size was calculated to detect a prevalence of 6%. SPSS soft was used in the analysis.

Results:

The study comprised 742 pregnant women with a mean age of 29.4 ± 5.6 years, a body mass index (BMI) of 29.8 ± 6.1 kg/m², and gestational age 27.6 ± 9 weeks. The prevalence of high risk OSA among pregnant women was 19.3% and it was significantly related with the higher maternal BMI. Snoring was prevalent among pregnant women (13.5%). OSA positive patients associated with anemia, Restless leg syndrome and diabetes.

Conclusion:

OSA is prevalent among Saudi pregnant women, Obstetricians need to be able to identify, which is prevalent and is associated with considerable morbidity.

Perception of Medical Students toward Diagnostic Reasoning Program (DxR) as a learning tool in Hybrid Curriculum at King Saud University (KSU)

Abdulmajeed Al-Drees, Fahad Saeed Al-Qahtani, Naif Ali AlLajji, Saad Hamad Al-Dosari, Abdullah Ali Al-Qahtani.

Introduction:

Different structural methods are used in medical education including lectures, problem based learning, case based learning and bed-side teaching. Bed-side teaching is important part in clinical teaching at medical schools. However, bed-side teaching has many limitations including adequate number of patient and spectrum of cases, time consuming and the needs of trained instructors. Therefore, arise the challenge to create computer system that simulate real life patient (VPs) which improve student clinical reasoning skills. DxR is simulated patient program that allows student to practice their clinical reasoning skills by providing tools to gather data in order to diagnose and treat patients. DxR started in USA in 1990 at Southern Illinois University School of Medicine and developed by DxR development Group, Inc. In 2008 at King Saud University College of medicine, Riyadh, Saudi Arabia, system based, integrated and hybrid curriculum has been applied with different innovative instructional method like DxR

Methodology:

We conducted a cross sectional study in the college of medicine, King Saud University, Saudi Arabia At the end of 2014-2015 academic year. The survey questionnaire was self-administered and examined perception of medical student toward DxR as learning tool in hybrid curriculum.

Result:

A total of 385 questionnaires were distributed and 319 (83%) of students completed the questionnaire. Of these, 137 were third year students, 102 were fourth year students, 80 were fifth year students. Most of the student reported that DxR did not help them to perform better in the practical assessment ($p=0.026$). In addition, DxR did not train their ability to reach diagnoses. Moreover, students reported that DxR did not connect the topics they study to reality.

Discussion:

Our study revealed that DxR web cases did not train students' abilities to reach diagnosis as reported by most of students especially female. On the other, hand a study conducted in Florida showed the majority of students felt that it was a worthwhile educational experience. In addition, our study showed that DxR has no role to facilitate learning new facts about symptoms, diagnosis and management.

However, a study conducted in Poland showed that VPs programs helped them in their practical assessment. Another study reported that VPs cases are preferred more to the students than paper-based cases. However, Students in our study reported that they prefer paper-based cases over web cases.

Conclusion:

The study evaluate the perception of students toward DxR in system-based hybrid curriculum, which shows that DxR cases were not beneficial in there learning process. In addition, Students prefer paper-based cases over web cases.

Delaying Definitive Treatment in Corrosive Ingestion Injuries; not always a Good Option!

Akram Nurhussen, Lucman A. Anwer, Mohammad Abrar Shareef, Ayesha A. Anwer, Loai Dweik, Mohamed Hussein, Khaled M AlKattan, Mahmoud Ashour

Introduction:

Corrosive injury still remains an important public health issue worldwide; especially in the developing countries. In the acute stage ingestions can present as a wide plethora of symptoms, ranging from mild symptoms to the other end of the spectrum, involving shock and/or death. The extent of injury depends on the type, amount, concentration and duration of impact with the gastrointestinal mucosa. In the later stages, esophageal and/or gastric strictures form the gist of the complications. Herein, we present a case of severe accidental corrosive ingestion complicated with an esophageal stricture and a broncho-esophageal fistula.

Methods:

This is a young patient who suffered from an accidental corrosive ingestion injury at the age 3. Her clinical outcome was complicated by an esophageal stricture and a broncho-esophageal fistula. Ever since, she was managed medically via esophageal dilations for multiple years. Nonetheless, despite multiple attempts the patient would always end up with the same problem. Finally at the age of 16, ten years after the initial event, she was offered definitive surgical management.

Results:

The patient underwent definitive surgery in the form of retrosternal gastric pull-up which was anastomosed to the pharynx on the left side of the neck. The surgery was completed successfully without any peri-operative or post-operative complications. Initially, post-surgery she had difficulty in swallowing, which was expected as she was on primarily gastrostomy feeding for 8-9 years. However, after several sessions of speech and swallowing therapy her swallowing improved and within 6 weeks from surgery she was able to swallow without any evidence of aspiration on contrast study. The tracheostomy tube was also removed and finally after a period of 10 years of disability she was able to eat, and breathe normally.

Discussion:

The long-term sequela of corrosive ingestion injuries occupy a vital status in the overall management ladder. Fortunately, reconstruction surgeries have a good long term prognosis when done in expert centers. However, deciding when to intervene is a pivotal decision. Unnecessarily delaying definitive surgery, results in more complicated and risky operative management along with a poor quality of life. Nevertheless, delayed presentation of cases, even after 10 years from initial injury are still repairable when approached with curative intent.

Keywords: Caustic ingestions, gastro-intestinal injury, definitive treatment

Medical Students Satisfaction from Peer Advising in an Integrated Problem Based Learning Curriculum: A Cross Sectional Study

Al Homssi A., Shamaa T., Abu Ghoush M., Alhourani N., Awad H., Al-Akchar M., Hamdy H.

Abbreviations:

- SPA: Student Peer Advising
- USMLE : United States of Medical Licensing Examination
- UoS: University of Sharjah
- UAE: United Arab Emirates

Study Context:

The College of Medicine, University of Sharjah adopts a competency based, integrated curriculum. The main strategy of learning is problem-based learning combined with team based learning (Hamdy, 2008). Students Peer Advising (SPA) was initiated by students in order to support collaborative and experiential learning. In this approach, senior students provided and shared their educational experiences with junior students individually or in large groups. Advice was mainly on how to succeed in this demanding student centered educational program.

Aim:

To evaluate the satisfaction of medical students from Students' Peer Advising activities, its strengths, limitations and how it can improve.

Methodology:

In order to investigate the effectiveness of the SPA initiative, a quantitative observational cross-sectional design was used. Two groups were investigated, the committee members (Advisors) and the students (Advisees) who attended the SPA events by using a self-administered questionnaire.

Results:

Responses from Advisees: One hundred and thirteen students responded giving a response rate of 60%. Regarding the number of sessions attended by the advisees, up to 2 sessions [attended by 43 (38%)], 3 sessions [attended by 42 (37%)] and 4 to 5 sessions [attended by 28 (25%)] respectively. When inquired about the overall satisfaction and usefulness of peer advising, 65% of the students provided a score of 4 or 5 out of 5, with 5 being the most satisfactory and useful.

Responses from Advisors:

SPA committee consisted of fifteen members, of whom thirteen responded. Fifteen sessions were conducted by members from different academic years, and they all agreed that it was a beneficial experience. According to the feedback collected from the advisors, the most rewarding aspect of their experience revolved around the gratification and sense of satisfaction consequent to improving the students' academic performance.

Conclusion:

The study found that peer advising was appreciated by students and peer advisors.

Keywords:

Student Peer advising, Peer Advising Committee, College of Medicine, University of Sharjah

Acknowledgements:

We thank Joyce D'Souza for assisting in paper work. We thank SPA members for their participation in data collection.

Declaration:

We declare that we do not have competing interests

Contributions:

AA performed the statistical analysis and participated in drafting and editing the manuscript. MTS prepared the questionnaires and participated in the design of the study and drafting the manuscript. MSA carried out the data collection and participated in preparing the questionnaires and drafting the manuscript. NA participated in the statistical analysis, drafting and editing of the manuscript. HA participated in drafting and editing the manuscript. MMA participated in preparing the questionnaires and the design of the study. HH conceived the study and participated in its design and coordination and helped to draft the manuscript. All authors read and approved the final manuscript.

UOS Medical Students' Perception about Learning in Small Groups

Mousa Abu Ghoush, Mohammed AbdulQadir, Safa Al-Abdullah, Zahraa Al-Lami. University of Sharjah-College of Medicine

Background.

Learning theories are conceptual framework that describe how information is absorbed, processed, and retained. Cognitive, emotional, and environmental influences, as well as prior experience, all play a part in how understanding, is acquired or changed, and knowledge and skills retained. One such approach is small group learning which is one of the most important features of medical education.

Objectives:

The purpose of this study is to describe students' perception toward small group learning.

Methods:

A cross-sectional descriptive study was conducted among years one, two and three UOS medical student in September 2012 through November 2013. Convenience sampling was used.

Results:

A total of 277 UOS medical students participated, year 1 (n=105), year 2 (n=84), and year 3 (n=88) where 39% were males and 61% females, the mean age was 20 years. The most rewarding experiences as perceived by medical students were exposure to different views (71%), cooperative learning environment (66%), making friends (57%) and underwent personal development (46%), while the main disadvantages included: time wasting (55%), side talks (14%), distractions (7%), conflicts within the group (4%), dominance of certain members (1%), and others (15%). The most preferred types of learning in small groups were: Clinical skills groups (88%), Anatomy lab groups (86%), TBL (77%), PBL (70%).

Conclusion:

Majority of students had a good perception and positive attitude towards small group learning and agreed that it enhances their collaborative learning, team work skills and cognitive function.

Significance. This study evaluates the importance of adopting a collaborative learning environment in medical education and the perceived benefits in various domains, the cognitive, social and personal development.

Preference of Physicians' gender among male and female Primary Health Care Clinic attendees in a University Hospital in Saudi Arabia

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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 two proportion sample size equation was used to estimate the suitable sample size for the study (1).

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.

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Assessing Correlation Between Students' Perception of The Learning Environment and Their Academic Performance

Thamer Adnan Nouh, Njoud Faisal Alfaisal, Alaa Abdullah Alanazi, Walaa Ali Al-shehri, Basma Khalid Alfaris, Ebtihal Ateeq Alamer

Objective:

Learning environment at an educational institute is a critical factor for its academic outcome. The Learning, Environment, Process, Outcomes (LEPO) framework emphasizes the importance of learning environment being pivotal to get the desired learning outcomes. The aim of this study was to assess the association between the learning environment and academic performance (the learning outcome) at medical colleges in Riyadh, Saudi Arabia.

Methods:

A Cross sectional study was conducted in four medical colleges. The authors sent an online questionnaire to 423 final year medical students. It included Demographic profile, the last Grade Point Average (GPA), and the Dundee Ready Education Environment Measure (DREEM). Statistical analysis included Pearson correlation coefficient 'R', one-way ANOVA and linear regression to measure the association between learning environment and the GPA.

Results:

Mean DREEM score was 117.9 (27), higher for females (p-value 0.019). Correlation coefficient 'R' was found to be 0.29 (p-value <0.001). As the perception of learning environment increased from "Poor", "Plenty of Problems", "More Positive than Negative" to "Excellent", the mean GPA raised from 3.87, 3.88, 4.23, to 4.42 respectively (p-value 0.0006). Perception of learning environment as "More Positive than Negative" & "Excellent" increased the mean GPA by 0.38 (95% CI 0.19 – 0.57) as compared to "Poor", "Plenty of Problems" at multivariable analysis.

Conclusion:

Improvement in the learning environment can enhance the academic performance of the medical students as indicated by the increase in the mean GPA, one of the learning outcomes.

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