



**GulfThoracic**

مؤتمر الخليج لطب وجراحة الصدر

**DUBAI 2016**

9-12 MARCH

Grand Hyatt Hotel, Dubai, UAE

BEYOND GULF INSPIRATION

**The 7<sup>th</sup> Annual Congress of Saudi Thoracic Society**  
in collaboration with Emirates Allergy and Respiratory Society

# Final Program



**30 CMEs**

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**GulfThoracic**  
مؤتمر الخليج لطب وجراحة الصدر

**DUBAI 2016**



**GT2016**

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# CHAIRMAN'S MESSAGE

BEYOND GULF INSPIRATION

CHAIRMAN'S MESSAGE



Dear Colleagues and Friends,

On behalf of the Executive Committee of the *GulfThoracic* Congress 2016, I would like to extend my warmest welcome to you all, to participate in this international event, which will be held in Grand Hyatt Hotel, Dubai, UAE on 9-12 March 2016.

The *GulfThoracic* Congress 2016 is the seventh joint meeting of the Saudi Thoracic Society (STS), in collaboration with the Emirates Allergy and Respiratory Society (EARS). Collaborating with the American Thoracic Society (ATS) and European Respiratory Society (ERS), with special participation from The Cleveland Clinic Foundation, USA, The Royal Brompton and Harefield Hospitals, UK. Saudi Society for Respiratory Care, Alfaisal University, Riyadh, Saudi Arabia.

The Scientific Committee is planning a very comprehensive program catering for all specialties of Pulmonary/ Thoracic Medicine that will deliver state of the art lectures, update presentations, postgraduate courses, workshops, panel discussions, interactive sessions, and research abstract presentations. The program covers all fields related to Thoracic Medicine including but not limited to Asthma/ Allergy & immunology, Pulmonary Hypertension, Critical Care Medicine, Lung Cancer, Pulmonary Infections, Thoracic Imaging, Sleep Medicine, Thoracic Surgery, Thoracic Oncology, Respiratory Care, Interstitial Lung Diseases, COPD, Interventional Bronchoscopy, and Pediatric Pulmonology.

The pharmaceutical Industry is also committed in their support of our congress that will host a large exhibit area and many attractive opportunities to share their products and knowledge with the attendees.

Like last year, the Organizing Committee is working hard to make this event a stimulating occasion both scientifically and socially. Undoubtedly, it will be a great opportunity to see other colleagues and friends and to benefit from the wide spectrum of medical topics to be discussed in this congress.

We will meet you in the glamorous city of Dubai, a fast growing beautiful city with many attractions and rich heritage.

For these reasons, we look forward to seeing you in this congress, so please mark your calendar and plan to join us. Your early registration will ensure that you get a lower registration fee and regular updates and information.

My thanks goes to everybody who participated in the work for this congress appreciating their dedication, enthusiasm and perseverance to make our congress a great success.

With my best regards,

A handwritten signature in black ink, appearing to be 'MH' or similar initials, written in a cursive style.

**Prof. Mohamed S. Al-Hajjaj MD, FRCP (C)**

Professor and Senior Consultant Pulmonary Medicine  
Chairman, *GulfThoracic* Congress 2016  
President, Saudi Thoracic Society  
Riyadh, Saudi Arabia



# Saudi Thoracic Society

## الجمعية السعودية لطب وجراحة الصدر



Saudi Thoracic Society (STS) is a scientific foundation and a leading resource for improvement of lung health in Saudi Arabia. Its mission is to promote the prevention, diagnosis, and treatment of chest diseases through leadership, education, research, and communication. STS was established in 2002 and it is affiliated with King Saud University in Riyadh.

### The specific aims of the Society are:

- Promoting and coordinating activities in the field of respiratory medicine
- Fostering research activities in the field of respiratory medicine
- Organizing and coordinating regular national and regional meetings
- Publishing a newsletter and a journal of international repute
- Publishing and updating clinical practice guidelines in the field of respiratory medicine

You are invited to become a member of the Joint STS-ERS Membership. You will be a valuable member of our mailing list and it is important to keep you informed on relevant updates, articles, news and announcements.

Therefore, kindly spare a minute to register.

Register Now: [http://www.saudithoracic.org/sts\\_ers/](http://www.saudithoracic.org/sts_ers/)

## SUBSIDIARIES



## GENERAL INFORMATION

### Badges:

Name badges must be visible and used at all times, anywhere at the conference venue, and off-site social activities.

Colors:	Description:
Green:	Faculty (all access)
Red:	Delegate (all access, except speaker preview room)
Purple:	Exhibitor (no access to scientific sessions)
Yellow:	Staff
Blue:	Medical Students Faculty
Sea Green:	Medical Students Delegate

### CME Certification:

This Congress is accredited by The Saudi Commission for Health Specialties (SCFHS) for 30 hours for the main congress. Certificates will be released onsite after filing the congress evaluation forms.

### Congress Bags:

Congress bags will be distributed to registered participants at the Registration Desk.

### Faculty Registration:

There is a dedicated faculty lounge & preview room for faculty's registration and badge collection and is operational at the same time as the registration desks.

### Food & Beverage:

Coffee breaks and lunch will be open to registered delegates. The hotel also offers a variety of all day dining restaurants to choose from. Anybody with Congress badge

are eligible to go to the designated restaurants within the hotel.

### Automated Teller Machines (ATM):

There is an ATM located in the Hotel Lobby

### Rules:

Smoking Policy in the Hotel: The entire hotel is non smoking. Mobile Phones- Delegates are kindly requested to keep their mobile phones in the off mode in meeting rooms when scientific sessions are in progress.

### Parking:

24 hours valet parking is available at the congress venue.

### Prayer Room:

Prayer rooms are available in the Event Centre.

### Faculty Lounge & Preview Room:

All speakers are requested to report to the Faculty Lounge & Preview Room (Al Majlis) at least one hour before their lecture, for a final check on presentation material. The Faculty Lounge & Preview Room is available for speaker's convenience throughout the congress for final run-throughs of their presentations.

### Evacuation Assembly Point:

In case of an emergency evacuation procedure please proceed in an orderly fashion to the open area in front of the Events Centre. Please follow the instructions of the Hotel Staff Wardens at all times.

# ABOUT DUBAI

BEYOND GULF INSPIRATION

# EXECUTIVE COMMITTEE

BEYOND GULF INSPIRATION

**Dubai** - the exotic jewel of the United Arab Emirates. Bordered by deserts and beaches, Dubai provides stark contrasts, from intriguing Islamic culture to the ultra-modern, high-tech metropolis of the 21st century. The city is a magnificent expression of an incredible vision and an uncompromising statement of success and opportunity.

**Dubai** has something for everyone, from vacationers seeking a relaxing break away from the pressures of work, to business travelers looking for a new exciting experience. The emirate is an international conference, exhibition and leisure destination.

Lying on the calm, blue waters of the southern Gulf and flanked by the majestic desert, Dubai offers year-round sunshine and five-star luxury along with the adventure of a unique Arabian experience.

**Dubai** is a class destination with all the modern amenities of the western world. It is a fascinating emirate with beautiful buildings, excellent restaurants and nightlife as well as white sandy beaches, culture and history that you can feel as you visit the souks, shopping malls, museums and historic buildings and sites.

### Climate

Dubai has a sub-tropical, arid climate. Sunny, blue skies can be expected most of the year. Rainfall is infrequent and irregular, falling mainly in winter. Temperatures range from a low of about 10.5°C /50 °F to a high of 48°C/118.4°F. The mean daily maximum is 24 °C/75.2 °F in January rising to 41°C/105.8 °F in July.

### Clothing

Lightweight summer clothing is suitable for most of the year, but sweaters or jackets may be needed for the winter months, especially in the evenings. Compared with certain parts of the Middle East, Dubai has a very relaxed dress code. However, care should be taken not to give offence by wearing clothing which may be considered revealing, for example low-cut dresses, very short skirts, or tight shirt or top in public.

At the pool or on the beaches, trunks, swimsuits and bikinis are quite acceptable. Good quality sunglasses are advised, and photo chromatic lenses for those who wear spectacles. Hats, or some protection for the head, are advisable when in direct sunlight.

### Culture & Lifestyle

**Dubai's** culture is firmly rooted in the Islamic traditions of Arabia. Courtesy and hospitality are among the most highly prized of virtues, and the visitor is sure to be charmed by the genuine warmth and friendliness of the people.

**Dubai** society is marked by a high degree of tolerance for different lifestyles. Foreigners are free to practice their own religion, alcohol is served in hotels and, provided reasonable discretion is shown, the dress code is liberal. Women face no discrimination and may drive and walk around unescorted.

Despite rapid economic development in recent years, Dubai remains close to its heritage. Local citizens dress in traditional robes and headdress. Arab culture and folklore find expression in poetry, dancing, songs and traditional art. Weddings and other celebrations are colorful occasions of feasting and music. Traditional sports such as falconry, camel racing and dhow racing at sea continue to thrive.

### Language & Religion

The official language is Arabic but English is widely spoken and understood. Both languages are commonly used in business and commerce.

Islam is the official religion of the UAE and there are a large number of mosques throughout the city. Other religions are respected and Dubai has two Christian churches, St Mary's (Roman Catholic) and Holy Trinity (inter-denominational).

### Photography

Normal tourist photography is allowed, however it is considered offensive to photograph Muslim women. It is also courteous to request permission before photographing men.

### Currency

The monetary unit is the dirham which is divided into 100 fils. The dirham has been held constant against the US dollar since the end of 1980 at a mid-rate of approximately US\$1 = Dh3.67.



### Congress Chairman

**Prof. Mohamed S. Al-Hajjaj, MD, FRCP (C)**

Professor and Senior Consultant Pulmonary Medicine  
Chairman, GulfThoracic Congress 2016  
President, Saudi Thoracic Society  
Riyadh, Saudi Arabia



### Congress Executive Director

**Co-Chairman, Scientific Committee**

**Hassan S. Alorainy, BsRC, RRT, FAARC**

Executive Director, GulfThoracic Congress 2016  
Senior Clinical Respiratory Specialist  
King Faisal Specialist Hospital and Research Centre  
Riyadh, Saudi Arabia



### Chairman, Scientific Committee

**Bassam Mahboub, MD, FRCPC**

Consultant Pulmonary Medicine,  
Asst. Prof., University of Sharjah  
Head of Allergy and Respiratory Department, Dubai Hospital  
Chair, Emirates Allergy & Respiratory Society  
Dubai, UAE



### Co-Chairman, Scientific Committee

**Professor of Medicine**

**Strauss Chair Respiratory Medicine**

**Director, Meakins Christie Labs**

**McGill University**

Montreal, Canada



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*flutiform*® can transform asthma control with a fast onset and sustained efficacy in a consistent high fine particle fraction inhaler.<sup>3-5,7</sup>

Combining fluticasone and formoterol, *flutiform*® offers effective, rapid and sustained control of asthma symptoms.<sup>3-5,7</sup> What's more, the *flutiform*® aerosol inhaler delivers a consistently high fine particle fraction (~40%) across a wide range of flow rates.<sup>8</sup> So when your asthma patients need a change, *flutiform*® can help ensure it's a positive one.



**flutiform® (fluticasone propionate and formoterol fumarate) - Indications:** Regular treatment of asthma where the use of a combination product (inhaled corticosteroid & long-acting β<sub>2</sub>-agonist) is appropriate: For patients not adequately controlled with inhaled corticosteroids & 'as required' inhaled short-acting β<sub>2</sub>-agonist (SABA), or for patients already adequately controlled on both an inhaled corticosteroid & a long-acting β<sub>2</sub>-agonist (LABA). **flutiform**® 50µg/5µg & 125µg/5µg per actuation are indicated for use in adults & adolescents 12 years & above. **flutiform**® 250µg/10µg per actuation is only indicated for use in adults. **Dosage & administration:** The appropriate strength should be taken as two inhalations, twice-daily & used every day, even when asymptomatic. **flutiform**® should not be used in children under 12 years. **Contraindications:** Hypersensitivity to any of the active substances or excipients. **Precautions & warnings:** **flutiform**® should not be used for the 1<sup>st</sup> treatment of asthma, to treat acute asthma symptoms or for prophylaxis of exercise-induced asthma. It should not be initiated during an exacerbation, during significantly worsening or acutely deteriorating asthma, & should not be stopped abruptly. Use with caution in patients with: pulmonary tuberculosis; quiescent tuberculosis; fungal, viral or other infections of the airway; thyrotoxicosis; pheochromocytoma; diabetes mellitus; uncorrected hypokalaemia; predisposition to low levels of serum potassium; impaired adrenal function; hypertrophic obstructive cardiomyopathy; idiopathic subaortic stenosis; severe hypertension; aneurysm or other severe cardiovascular disorders. Particular caution is recommended in unstable or acute severe asthma & other conditions when the likelihood for hypokalaemia adverse effects is increased. **flutiform**® should be discontinued immediately if there is evidence of paradoxical bronchospasm. **Pregnancy and lactation:** **flutiform**® is not recommended during pregnancy. It should only be considered if benefits to the mother outweigh risks to the foetus. It is not known whether fluticasone propionate or formoterol are excreted in breast milk; a risk to the breast feeding infant cannot be excluded. A decision should be made on whether to discontinue breastfeeding or discontinue/abstain from **flutiform**®. **Side-effects:** Potentially serious side-effects: hyperglycaemia; depression; aggression; behavioural changes (predominantly in children); paradoxical bronchospasm; agitation; vertigo; palpitations; ventricular extrasystoles; angina pectoris; tachycardia; hypertension; dyspnoea; peripheral oedema; Cushing's Syndrome; adrenal suppression; growth retardation; cataract and glaucoma; hypersensitivity reactions and QTc interval prolongation.

For detailed information, please refer to full prescribing information.

**References:** 1. Price D. et al. Asthma control and management in 8,000 European patients: the REcognise Asthma and Link to Symptoms and Experience (REALISE) survey. *npj Primary Care Respiratory Medicine* (2014) 24, Article number: 14009. 2. Thomas M, Haughney J, Price D. Physicians' attitudes towards combination therapy with inhaled corticosteroids and long-acting β<sub>2</sub>-agonists: an observational study in UK specialist care. *Prag Obs Res* 2011; 2: 25-31. 3. **flutiform**® Approved Prescribing Information/Data Sheet. 4. Aalbers R et al. Onset of bronchodilation with fluticasone/formoterol combination versus fluticasone/salmeterol in an open-label, randomized study. *Adv Ther* 2012. Published online 17 October 2012 ([www.advancesintherapy.com](http://www.advancesintherapy.com)). 5. Bodzenta-Lukaszyk A et al. Fluticasone/formoterol combination therapy is at least as effective as fluticasone/salmeterol in the treatment of asthma, but has a more rapid onset of action: an open-label, randomized study. *BMC Pulm Med* 2011; 11: 28-37. 6. Global Strategy for Asthma Management and Prevention, Global Initiative for Asthma (GINA) 2012. Available from: [www.ginasthma.org](http://www.ginasthma.org). 7. Mansur AH, Kaiser K. Long-term safety and efficacy of fluticasone/formoterol combination therapy in asthma. *J Aerosol Med Pulm Drug Deliv* 2012; 25 (0): 1-10. 8. Johal B, Howald M, Fischer M, Marshall J. Comparison of the fine particle fraction of fluticasone propionate/formoterol fumarate combination with other combination products. Poster presented at the European Respiratory Society (ERS) 22nd Annual Congress, 1-5 September 2012, Vienna, Austria.

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BEYOND GULF INSPIRATION

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BEYOND GULF INSPIRATION



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**Prof. Mohamed S. Al-Hajjaj, MD, FRCP(C)**  
Riyadh, Saudi Arabia



**Congress Executive Director**  
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Riyadh, Saudi Arabia



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**Chairman, Scientific Committee**  
**Bassam Mahboub, MD, FRCPC**  
Dubai, UAE



**Co-Chairman, Scientific Committee**  
**Prof. Qutayba Hamid, MD, PhD, MRCP (UK), FRCP (Canada), FRC Path.**  
Montreal, Canada



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## ERS-STJ JOINT MEMBERSHIP

### Membership Fee:

- SAR200
- EUR40
- USD50

### Eligible Countries:

- **GCC Countries:** Saudi Arabia, Bahrain, Kuwait, Oman, Qatar, and United Arab Emirates.
- **Middle East Countries:** Egypt, Sudan, Lebanon, Syria, Jordan, Iraq, Yemen, and Iran.
- Any other Nationality residing and/ or practicing in any of the above countries.

### ERS-STJ Joint Membership Benefits

- The ERS will provide full electronic access to the European Respiratory Journal (ERJ) to all members of STS, except ERS Congress Abstracts and Proceedings supplements of the ERJ, which will be distributed to Congress attendees only. ERS reserves the right to change the format of the ERJ to "open access", if needed.
- The ERS will provide full electronic access to the European Respiratory Review (ERR), Breathe (both currently open access) and the Monograph to all members of STS
- The ERS will offer all its publications in printed form to all interested members of STS at a special discounted price.
- The ERS will distribute the ERS Weekly Newsletter to STS members.
- ERS and STS will proactively co-operate to offer STS members preferred access to ERS Educational Services online and Events, as well as to endorse STS Educational Services by ERS, where applicable.
- Ordinary, distinguished and honorary members of STS may participate in the constitutional meetings of the ERS and may vote. They are eligible for election to office up to Assembly Head without any residence restriction and eligible for any office position up to ERS Presidency, provided they have their main residence in Europe, according to ERS Constitution and Bylaws in its last approved version. Members of STS are accorded all rights and privileges as detailed in the ERS Constitution and Bylaws in its last approved version.
- Distinguished Officers of the Executive Committee, members of Governance bodies and members of STS, provided they qualify and they apply for it, duly endorsed by STS, will be considered for election in the prestigious Fellow of ERS program (FERS)

### Additional ERS Membership Entitlements

- Discount on ERS International Congress. Special rates available for: Scientists (PhD, non-MD), Allied Health Professionals, Under 35s
- Special rates on ERS Events
- Affiliation to up to three groups of your choice in any of our eleven Scientific assemblies
- Exclusive access to all research proposals
- Eligible to stand for office and vote for Assembly and Group Officers and to vote at the General Assembly
- Eligible to propose Symposia for the ERS International Congress
- Eligible to apply for grants
- Eligible to apply for financial support when setting up seminars and task forces – enables members to produce position papers statements or guidelines that subsequently become the official ERS documents on issues related to respiratory medicine

[www.ersnet.org](http://www.ersnet.org)

### STS Membership Benefits

- The opportunity to chair sessions in Society's meetings and active participation in scientific committees related to the member's experience and academic interest.
- Free or discounted admission to all STS scientific activities (Symposiums, Conferences, medical meetings with credit hours ... etc...).
- Free subscription to Annals of Thoracic Medicine "ATM; [www.thoracicmedicine.org](http://www.thoracicmedicine.org)", the scientific journal of STS.
- Obtaining all brochures, handouts, and booklets of STS for FREE.
- Getting the monthly "Pulmonary Medicine updates & abstracts".
- Free subscription to the STS Arabic Magazine "Al.Tanafus".
- Free admission to the monthly "Chest Club" meetings with credit hours.
- Receiving all STS scientific materials including local guidelines and medical books in the field of chest diseases.
- Email Alerts to all scientific events in the Kingdom and the world.

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## ERS-STJ JOINT MEMBERSHIP FORM

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- USD50

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- **Middle East Countries:** Egypt, Sudan, Lebanon, Syria, Jordan, Iraq, Yemen, and Iran.
- Any other Nationality residing and/ or practicing in any of the above countries.

Title:  Prof.  Dr.  Mr.  Ms.

Gender:  Male  Female

First Name:

Middle Name:

Last Name:

Date of Birth: (Day / Month / Year)

Specialty: .....

Area of Interest: .....

Current Post: .....

Degrees: (MD, MBBS, PhD, etc...)

Present Position: .....

Institution: (Name of your Hospital, Med. Center...)

City: .....

Region: .....

Country of Residence: .....

Nationality: .....

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San Francisco

SESSIONS OF INTEREST

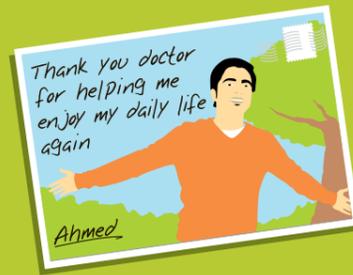
- Understanding Lung Disease Phenotypes: Networks and Systems Biology
  - Moving Toward Precision Medicine for Lung Disease
  - Breaching Barriers: Targeted Delivery of Therapeutics to the Lung
  - Biomarkers: guideposts in the roadmap to improved personalized and precision medicine
  - Patient-Derived Models of Human Lung Disease: A Lab Meeting\*
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- ▲ **EXPLORE.** More than 500 sessions, 800 speakers, and nearly 6,000 research abstracts and case reports in pulmonary, critical care, and sleep medicine are expected to be presented.
- ▲ **CONNECT.** Global experts will connect you with the latest advances in science and health in ways that foster discussion among clinicians and researchers from more than 90 countries, including Opening Ceremony Speaker J. Craig Venter, PhD, who published the human genome in 2001.
- ▲ **LEARN.** Symposia and interactive sessions, simulations and demonstrations, postgraduate courses and seminars, and the award-winning Exhibit Hall will keep you at medicine's forefront.
- ▲ **RECERTIFY.** The ATS again plans to offer American Board of Internal Medicine Maintenance of Certification Knowledge Points and American Board of Pediatric MOC credits.

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Just one inhaler for better compliance, easy to operate device<sup>5</sup>

**ABBREVIATED PRESCRIBING INFORMATION:**  
Symbicort Turbuhaler, 160/4.5 micrograms/inhalation, inhalation powder. Qualitative and Quantitative Composition: Each delivered dose (the dose that leaves the mouthpiece) contains budesonide 160 micrograms/inhalation and formoterol fumarate dihydrate 4.5 micrograms/inhalation. Symbicort Turbuhaler 160/4.5 micrograms/inhalation delivers the same amount of budesonide and formoterol as the corresponding Turbuhaler mono-products, i.e. budesonide 200 micrograms/inhalation (metered dose) and formoterol 6 micrograms/inhalation (metered dose) alternatively labelled as 4.5 micrograms/inhalation (delivered dose). Therapeutic Indications: Asthma. Symbicort Turbuhaler is indicated in the regular treatment of asthma, where use of a combination (inhaled corticosteroid and long-acting beta2-agonist) is appropriate; patients not adequately controlled with inhaled corticosteroids and "as needed" inhaled short-acting beta2-agonists or patients already adequately controlled on both inhaled corticosteroids and long-acting beta2-agonists. COPD. Symptomatic treatment of patients with severe COPD (FEV1 < 50% predicted normal) and a history of repeated exacerbations, who have significant symptoms despite regular therapy with long-acting bronchodilators. Pathology and method of administration: Asthma. For Symbicort there are two treatment approaches: A. Symbicort maintenance therapy. Symbicort is taken as regular maintenance treatment with a separate rapid-acting bronchodilator as rescue. B. Symbicort maintenance and reliever therapy. Symbicort is taken as regular maintenance treatment and as needed in response to symptoms. Dosage and Administration: A. Symbicort maintenance therapy: Patients should be advised to have their separate rapid-acting bronchodilator available for rescue use at all times. Recommended doses: Adults (18 years and older): 1-2 inhalations twice daily. Some patients may require up to a maximum of 4 inhalations twice daily. Adolescents (12-17 years): 1-2 inhalations twice daily. In usual practice when control of symptoms is achieved with the twice daily regimen, transition to the lowest effective dose could take Symbicort given once daily when in the opinion of the prescriber, a long-acting bronchodilator would be required to maintain control. Increasing use of a separate rapid-acting bronchodilator indicates a worsening of the underlying condition and warrants a reassessment of the asthma therapy. Children (6 years and older): A lower strength is available for children 6-11 years. B. Symbicort maintenance and reliever therapy: Patients take a daily maintenance dose of Symbicort and in addition take Symbicort as needed in response to symptoms. Patients should be advised to always have Symbicort available for rescue use. Symbicort maintenance and reliever therapy should especially be considered for patients with inadequate asthma control and in frequent need of reliever medication; asthma exacerbations in the past requiring medical intervention. Close monitoring for dose-related adverse effects is needed in patients who frequently take high numbers of Symbicort as-needed inhalations. Recommended doses: Adults (18 years and older): The recommended maintenance dose is 2 inhalations per day, given either as one inhalation in the morning and evening or as 2 inhalations in either the morning or evening. For some patients a maintenance dose of 2 inhalations twice daily may be appropriate. Patients should take 1 additional inhalation as needed in response to symptoms. If symptoms persist after a few minutes, an additional inhalation should be taken. Not more than 6 inhalations should be taken on any single occasion. A total daily dose of more than 8 inhalations is not normally needed; however, a total daily dose of up to 12 inhalations could be used for a limited period. Patients using more than 8 inhalations daily should be strongly recommended to seek medical advice. They should be reassessed and their maintenance therapy should be reconsidered. Children and adolescents under 18 years: Symbicort maintenance and reliever therapy is not recommended for children and adolescents. COPD: Adults: 2 inhalations twice daily. Contraindications: Hypersensitivity (allergy) to budesonide, formoterol or inhaled lactose. Undesirable effects: Since Symbicort contains both budesonide and formoterol, the same pattern of undesirable effects as reported for these substances may occur. No increased incidence of adverse reactions has been seen following concurrent administration of the two components. Shelf life: 2 years. Special precautions for storage: Do not store above 30°C. Keep the container tightly closed. Further information is available on request from AstraZeneca or local AstraZeneca subsidiaries. Symbicort is a registered trademark owned by the AstraZeneca group of companies. Date of Revision of the Text: 6 October 2006



1-2 inhalations every morning



extra doses when needed



1-2 inhalations every evening

- References:  
1. GINA Guidelines 2009  
2. Prescribing Information  
3. P. Kuna et al. International Journal of Clinical Practice, 2007  
4. Balasing et al. Palm Pharm Ther 2006;19:139-147  
5. Van Spiegel & Jenner (1997) Br J Clin Res 8:33-45

**AstraZeneca**  
AstraZeneca Scientific office P.O.Box 17601,  
Riyadh 11494, Saudi Arabia

**Symbicort®**  
budesonide/formoterol

1185-0310-SYM-AD-0311



EUROPEAN RESPIRATORY SOCIETY  
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## Pulmonary Function Testing: Techniques and Interpretation

CONDUCTED BY:



**PROGRAM DIRECTOR: Dr. Hajed Al Otaibi (KSA)**

### OBJECTIVE:

- At the end of this workshop, participants are expected to:
- Understand basic physiology underpinning Pulmonary Function Tests.
  - Perform basic spirometry, and assess acceptability and repeatability of the test.
  - Perform Lung Volume Measurement Test.
  - Perform Lung Diffusion Capacity (DLco) Test.
  - In clinical contexts, assess and interpret PFT results.

### TARGET AUDIENCE:

- Pulmonologists
- Respiratory Therapists
- Residents
- PFT Technologists
- General Practitioners

### RATIONALE:

Pulmonary Function Test (PFT) has been the mainstay diagnostic and monitoring tool of airway and parenchymal diseases. Pulmonary function studies help to establish diagnosis and guide decisions for further treatments or interventions. There are array of PFT methods ranging from simple measurements of volume and flow to advanced measurement of gas diffusion capacity. Treatment and protocols for many pulmonary diseases emphasize the importance of PFT as a diagnostic tool. Therefore, Knowledge of PFT techniques and interpretation are essential for clinicians working with pulmonary patients.

**AUDIENCE:** Attendance is limited to 30 participants.

## Pulmonary Function Testing: Techniques and Interpretation



**Hajed Alotaibi, PhD, RRT**  
Assistant Professor of Respiratory Care  
Chairman, Respiratory Care Department,  
CAMS, Director, Respiratory Care  
Services, KFUH University of Dammam  
Dammam, Saudi Arabia



**Khalid Aziz Ansari, MD, M.Phil., PhD**  
Assistant Professor, Respiratory Care  
Department  
University of Dammam  
Dammam, Saudi Arabia



**Rasha A. Al Battat, BSRT, RPFT**  
Senior Pulmonary Function Technologist  
Respiratory Therapy Department  
King Fahad Specialist Hospital - Dammam  
Dammam, Saudi Arabia



**Noor Al Khathlan, BSc, MSc, PhD**  
Assistant Professor of Pediatric Pulmonary  
Function Testing  
Director of Clinical Education, Respiratory  
Care Department University of Dammam  
Dammam, Saudi Arabia



**Prof. Omar A. Al Rawas, MBChB, FRCP (Glasg.)**  
Professor of Medicine and Consultant  
Pulmonologist, Department of Medicine  
Dean, College of Medicine and Health  
Sciences (CoMHS), Sultan Qaboos  
University (SQU)  
Muscat, Oman



**Jose Rex Navarrosa, BSRT**  
Senior Clinical Instructor  
RC Clinical Training Unit  
Overall Coordinator  
RCD-NCAAA Accreditation Project  
Respiratory Care Department  
College of Applied Medical Sciences  
Dammam, Saudi Arabia



**Marwah Wakkas, RRT**  
RCD Quality Unit Coordinator  
Respiratory Care Department  
College of Applied Medical Sciences  
Dammam, Saudi Arabia

14:00 - 19:00

WEDNESDAY, 09 MARCH 2016

MEETING ROOM: AL MAASA

TIME	TOPIC	SPEAKER
14:00 - 15:00	Registration	
15:00 - 15:15	Welcome Remarks	Hajed Al Otaibi - KSA
15:15 - 15:40	Pulmonary Physiology for PFT	Khalid Ansari - KSA
15:40 - 16:05	Spirometry: Techniques and Acceptability of the Test	Hajed Al Otaibi - KSA
16:05 - 16:30	TLC and Diffusion Capacity	Noor Al Khathlan - KSA
<b>16:30 - 17:00</b>	<b>COFFEE BREAK</b>	
17:00 - 17:30	Practice 1: FVC and Basic Spirometry	Jose Rex Navarrosa - KSA
17:30 - 18:00	Practice 2: Lung Volume Measurements	Marwah A. Wakkas - KSA
18:00 - 18:30	Practice 2: Diffusing Capacity	Rasha A. Al Battat - KSA
18:30 - 19:00	Case Studies & Interpretation	Omar A. Al Rawas - Oman
	Closing Remarks	

## Bedside Thoracic Ultrasound Course (BTUC)

CONDUCTED BY:



**PROGRAM DIRECTOR: Dr. Ali H. Altalag (KSA)**

### OBJECTIVE:

- At the end of this workshop, participants are expected to:
- Knowledge of basic USS concepts and knobology, image acquisition and interpretation.
  - Training using human models and phantom manikins.
  - Performance of thoracentesis and small tube drainage placement under USS guidance.

### RATIONALE:

To familiarize the Pulmonologists with the use of ultrasound (USS) to diagnose pleura and lung diseases such as pleural effusion and pneumothorax.

### TARGET AUDIENCE:

- Pulmonologists
- Intensivists
- Cardiothoracic Surgeons
- Fellows in Training

**AUDIENCE:** Attendance is limited to 30 participants.



## Bedside Thoracic Ultrasound Course (BTUC)



**Ali H. Altalag, MD, ABIM**  
Consultant Pulmonologist, Intensivist & Echocardiographer  
Department of Intensive Care Services  
Prince Sultan Military Medical City  
Riyadh, Saudi Arabia



**Faiza Al-Talaq, MD**  
Consultant, Emergency Medicine  
King Fahad Specialist Hospital-Dammam  
Dammam, Saudi Arabia



**Mohammed Alabdrab-Alnabi, MD**  
SSC-Em, ArBEM, UWO FCCM, ACEP-TF  
Consultant, Emergency & Critical Care  
King Fahad Specialist Hospital-Dammam  
Dammam, Saudi Arabia

14:00 - 19:00

WEDNESDAY, 09 MARCH 2016

MEETING ROOM: AL REMAL

TIME	TOPIC	SPEAKER
14:00 - 14:55	Registration	
14:55 - 15:00	Opening Remarks	
<b>FIRST LECTURE SESSION</b>		
15:00 - 15:20	Principles of Ultrasound and Knobology	Faiza Al-Talaq - KSA
15:20 - 15:40	Focused Thoracic Ultrasound and Normal Findings	Mohammed Alabdrab-Alnabi - KSA
15:40 - 15:45	<b>COFFEE BREAK</b>	
<b>1ST HANDS-ON SESSION (15:45 - 16:30) - 15 MINUTES PER STATION</b>		
15:45 - 16:30	<b>Station 1</b>	Introduction to Ultrasound Machine & Knobology Mohammed Alabdrab-Alnabi - KSA
	<b>Station 2</b>	Ultrasound of the Lower Chest on a Normal Subject, Imaging Costophrenic Angles (liver or spleen, diaphragm, curtain sign, A & B lines, rib shadows) Faiza Al-Talaq - KSA
	<b>Station 3</b>	Ultrasound of the Upper Chest on a Normal Subject, Imaging for Pneumothorax Using Linear Array Transducer (sliding pleura, lung pulse, A & B lines, M-mode for seashore sign) Ali Altalag - KSA
16:30 - 17:00	<b>COFFEE BREAK</b>	
17:00 - 17:30	Major Thoracic Pathology & Ultrasound-Guided Pleural Tap & Pigtail Catheter Insertion Ali Altalag - KSA	
<b>2ND HANDS-ON SESSION (17:40 - 18:55) - 25 MINUTES PER STATION</b>		
17:30 - 18:55	<b>Station 1</b>	Thoracic Pathology on Simulator (VIMEDIX) or Real Patient Ali Altalag - KSA
	<b>Station 2</b>	Ultrasound-Guided Pleural Tap on Phantom (Sitting Position) Mohammed Alabdrab-Alnabi - KSA
	<b>Station 3</b>	Ultrasound-Guided Pigtail Insertion on Phantom (Supine Position) Faiza Al-Talaq - KSA

**Thoracic Imaging: From Basic to Advanced**

CONDUCTED BY:



SPONSORED BY:



**PROGRAM DIRECTOR: Dr. Mashael AlRujaib (KSA)**

**OBJECTIVE:**

- At the end of this workshop, participants are expected to:
- Identify important diagnoses not to be missed on chest CXR.
  - Identify various presentations of Tuberculosis in the thorax.
  - Learn the diagnostic approach of pulmonary fibrosis.
  - Identify various types of lung nodules and the diagnostic workup.
  - Identify various presentations of smoking and smoking related lung.
  - Identify various roles of imaging in lung cancer.

**TARGET AUDIENCE:**

- Radiologists
- Pulmonologists
- Thoracic surgeons
- Anesthesiologist
- General Practitioners

**RATIONALE:**

Chest imaging using chest radiograph (X-ray) and Computed Tomography (CT) have been the main stay of diagnosis in various infectious, inflammatory and neoplastic diseases. While, chest X-ray is the primary imaging modality for patient s with various clinical presentations. Chest CT on the other hand is preserved for more detailed assessment of abnormalities seen chest X-ray or when the chest X-ray fails to explain the clinical presentation.

Radiologists, clinicians and surgeons need to be familiar with imaging features of important diseases of the chest and further workup.

**AUDIENCE:** Attendance is limited to 30 participants.

**Thoracic Imaging: From Basic to Advanced**



**Mashael K. Al Rujaib, MBBS, FRCR, DABR, FRCPC**  
 Consultant Radiologist and Associate Professor AlFaisal University Radiology Department, King Faisal Specialist Hospital & Research Centre  
 Riyadh, Saudi Arabia



**Amr M. Ajlan, MD**  
 Assistant Professor and Consultant Radiologist - Cardiothoracic Imaging Unit, King Abdulaziz University Hospital, King Abdulaziz University,  
 Jeddah, Saudi Arabia



**Suha H. AlBadr, BSC, MD, SBR**  
 Consultant Radiologist - Cardiothoracic and Body Imaging, Medical Imaging Department King Fahad Specialist Hospital / King Khalid Medical City  
 Dammam, Saudi Arabia



**Nesreen H. Abourokbah, MD**  
 Assistant Professor and Consultant Radiologist, Head of the CT-Section, King Abdulaziz Medical City (KAMC)- Jeddah National Guard Health Affairs- Jeddah  
 Jeddah, Saudi Arabia



**Donya A. Al-Hassan, MBBS, SSC-Rad.**  
 Consultant Radiologist and CardioThoracic Imager Radiology Department King Fahd Military Medical Complex Board Member, Radiology Society of Saudi Arabia (RSSA)  
 Dhahran, Saudi Arabia

14:00 - 19:00

WEDNESDAY, 09 MARCH 2016

MEETING ROOM: AL ITEFAQ

TIME	TOPIC	SPEAKER
14:00 - 15:00	Registration	
15:00 - 15:05	Introduction: Dr. Mashael Al Rujaib - KSA	
15:00 - 15:30	Top 10 Diagnosis Not to Miss on Chest X-Ray	Amr M. Ajlan - KSA
15:30 - 16:00	The Many Faces of Thoracic Tuberculosis	Nesreen H. Abourokbah - KSA
16:00 - 16:30	Smoking & Spectrum of Imaging Findings	Mashael K. Al Rujaib - KSA
<b>16:30 - 17:00</b>	<b>COFFEE BREAK</b>	
17:00 - 17:30	Approach to Lung Fibrosis	Donya A. Al-Hassan - KSA
17:30 - 18:00	Incidental Lung Nodules, What to do with Them?	Mashael K. Al Rujaib - KSA
18:00 - 18:30	The Role of Imaging in Lung Cancer	Suha H. AlBadr - KSA
18:30 - 18:50	Rare Chest Imaging Presentations	All Speakers
18:50 - 19:00	Presentation	GE

**Airway Clearance and Lung Expansion Therapy Techniques**

CONDUCTED BY:



SPONSORED BY:



**PROGRAM DIRECTOR: Dr. Mohammed Al Ahmari (KSA)**

**OBJECTIVE:**

- At the end of this workshop, participants are expected to:
- Understand normal airway clearance mechanisms and the factors that can impair their function.
  - Identify pulmonary disease associated with abnormal clearance of secretions
  - Understand the clinical indications, uses modifications of airway clearance & lung expansion techniques.
  - Select the proper airway clearance techniques and its potential benefit.
  - Describe how lung expansion therapy works and which patient needs lung expansion therapy.
  - Describe the primary responsibilities for practitioner in planning, implementing, and evaluating lung expansion therapy.

**RATIONALE:**

In patients with pulmonary diseases, mucociliary function and cough mechanism are altered in such a way that compromises patient's ability to expectorate and clear airway secretions. Accumulation of airway and lung secretions leads to chest infection, airway inflammation, and abnormal lung function. Research has shown that early intervention with the proper airway clearance techniques can reduce morbidity and mortality in patients with lung diseases.

**TARGET AUDIENCE:**

- Respiratory Therapists
- Nurses
- Pulmonologists
- General Practitioners

**AUDIENCE:** Attendance is limited to 20 participants.

**Airway Clearance and Lung Expansion Therapy Techniques**



**Mohammed Al Ahmari, PhD, RRT, CTTS**  
 Vice Dean for Postgraduate Studies and Research  
 Vice Dean for Training and Internship (Acting),  
 Chairman, Respiratory Care Program, Chairman, Institutional Research Board (IRB)  
 Assistant Professor, Respiratory Care, Saudi Governor for Respiratory Care, ICRC, USA  
 Prince Sultan Military College of Health Sciences  
 Dhahran, Saudi Arabia



**David Alan Grooms, MSHS, RRT**  
 Clinical Program Manager,  
 Respiratory Care Services  
 Sentara Healthcare  
 Suffolk, Virginia, USA



**Bashair Al Fozan, MsRC, RRT**  
 Lecturer, Female Academic Coordinator  
 Department of Respiratory Care  
 University Of Dammam  
 Dammam, Saudi Arabia



**Abdullah Al Mohammadi, MHA, RRT**  
 Registered Respiratory Therapist  
 Johns Hopkins Aramco Healthcare  
 Dhahran, Saudi Arabia

14:00 - 19:00

WEDNESDAY, 09 MARCH 2016

MEETING ROOM: AL DANA

TIME	TOPIC	SPEAKER
14:00 - 14:55	Registration	
14:55 - 15:10	Opening Remarks	
15:10 - 15:30	Physiology of Airway Clearance	Mohammed Al Ahmari - KSA
15:30 - 15:50	Airway Clearance Indications: Acute vs. Chronic	Bashair Al Fozan - KSA
15:50 - 16:10	Lung Expansion: The Best Approach	Abdullah Al Mohammadi - KSA
16:10 - 16:30	Selecting Airway Clearance Techniques	David Grooms - USA
<b>16:30 - 17:00</b>	<b>COFFEE BREAK</b>	
<b>HANDS ON SESSIONS, 20 MIN EACH</b>		
17:00 - 17:20	<b>Station 1</b> Postural Drainage (Positions)	Abdullah Al Mohammadi - KSA
17:20 - 17:40	<b>Station 2</b> Lung Expansion Techniques	Bashair Al Fozan - KSA
17:40 - 18:00	<b>Station 3</b> Airway Clearance Techniques	Abdullah Al Mohammadi - KSA
18:00 - 18:20	<b>Station 4</b> High Frequency Airway Clearance Devices	David Grooms - USA
18:20 - 19:00	Open Discussion	

**VATS Lobectomy - MASTER CLASS (INCLUDING WET LAB)**

CONDUCTED BY:



SPONSORED BY:



**PROGRAM DIRECTOR: Mr. Kostas Papagiannopoulos (UK)**

**OBJECTIVE:**

By the end of this course the surgeon has perfected his theoretical and practical skills in Video-Assisted Thoracic Surgery:

- Train surgeons on VATS lobectomy
- Bleeding management
- Lymph nodes dissection
- Stapling
- Safety access
- Reduce post operation complication

**TARGET AUDIENCE:**

Surgeons who have experience in thoracic surgery and who have already performed at least 30 VATS procedures

**AUDIENCE:** Attendance is limited to 12 participants.

**VATS Lobectomy - MASTER CLASS (INCLUDING WET LAB)**



**Mr. Kostas Papagiannopoulos**

Mmed Thorax, MD (cth),  
Honorary Senior Lecturer Leeds University,  
Consultant Thoracic Surgeon, LTH Trust  
Senior Surgeon Thoracic Surgery Leeds, Leeds Teaching Hospitals NHS Trust  
Consultant Thoracic Surgeon, Spire Healthcare Group plc  
Leeds, UK



**Prof. Khaled M. Al Kattan, MD, FRCS**

Consultant Thoracic Surgery,  
King Faisal Specialist Hospital and  
Research Centre  
Professor of Thoracic Surgery  
Dean, College of Medicine Alfaisal  
University  
Riyadh, Saudi Arabia



**Waleed N. Saleh, MD**

Consultant Thoracic Surgery  
Department of Surgery  
King Faisal Specialist Hospital and  
Research Centre  
Riyadh, Saudi Arabia

08:30 - 17:00

WEDNESDAY, 09 MARCH 2016

DIDACTIC AT MEETING ROOM: AL KHALEJ  
ANIMAL LAB AT SHARJAH SURGICAL INSTITUTE

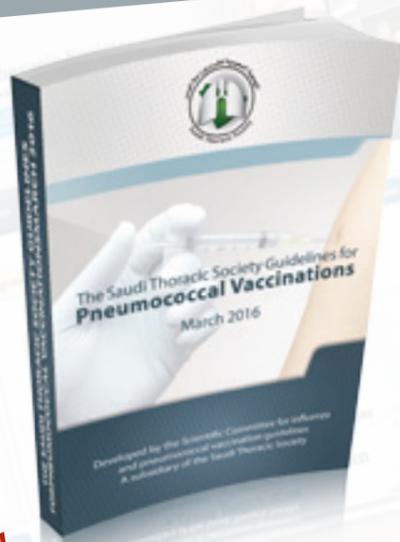
TIME	TOPIC
08:30 - 08:45	Welcome and Introduction
08:45 - 10:45	Theoretical principles of minimally invasive operating techniques for VATS lobectomy: <ul style="list-style-type: none"> <li>• Diagnosis</li> <li>• Patient selection</li> <li>• Evolution of a smooth VATS lobectomy</li> <li>• Transition from open to VATS (including patient selection, positioning, port placement, case studies, video demos)</li> </ul>
10:45 - 11:00	COFFEE BREAK
11:00 - 12:15	<ul style="list-style-type: none"> <li>• Tips and tricks to avoid conversion, manage complications</li> <li>• How to set up a successful VATS lobectomy program</li> <li>• Can we support the transition from open to VATS with financial and clinical data?</li> </ul>
12:15 - 13:00	LUNCH BREAK
13:00 - 14:00	Bus Drive to Sharjah Surgical Institute
14:00 - 14:15	WET LAB*/ PANTRY Introduction to related anatomy and procedures
14:15 - 17:00	WET LAB* Practical Training on animate models: <ul style="list-style-type: none"> <li>• Identification of anatomical structures</li> <li>• VATS lobectomy</li> </ul>



# THE SAUDI THORACIC SOCIETY GUIDELINES FOR PNEUMOCOCCAL VACCINATIONS - 2016

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## Take Steps to Help Protect Them From Pneumococcal Disease

**PREVENAR 13 is the first and only pneumococcal vaccine approved for use from infancy through adulthood.<sup>5,7</sup>**

Pneumococcal disease occurs more frequently at extremes of age: in children aged <5 years and adults aged ≥50 years. Specific conditions like asthma in older children or chronic obstructive pulmonary disease (COPD), cardiovascular disease, and diabetes in adults may also increase the likelihood of pneumococcal disease.<sup>1-5</sup>

Prevenar 13 is indicated for active immunization for:<sup>5</sup>

- **Infants and children:** The prevention of invasive disease, pneumonia, and acute otitis media caused by *Streptococcus pneumoniae* in infants, children, and adolescents from 6 weeks to 17 years of age.
- **Adults ≥18 years of age:** The prevention of invasive disease caused by *S pneumoniae*.

**Prevenar 13 is the most widely used PCV in the world.<sup>6</sup>**



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Help protect your patients by vaccinating them with Prevenar 13

### Prevenar 13® ABBREVIATED PRESCRIBING INFORMATION

Prevenar 13® suspension for injection

Pneumococcal polysaccharide conjugate vaccine (13-valent, adsorbed)

**Presentation:** Each 0.5ml dose of Prevenar 13® contains 2.2 micrograms of each of the following polysaccharide serotypes: 1, 3, 4, 5, 6A, 7F, 9V, 14, 18C, 19A, 19F, 23F and 4.4 micrograms of polysaccharide serotype 6B, all conjugated to the CRM197 carrier protein and adsorbed on aluminum phosphate (0.125 mg aluminum).

**Indications:** Active immunisation for the prevention of invasive disease, pneumonia and acute otitis media caused by *Streptococcus pneumoniae* in infants, children and adolescents from 6 weeks to 5 years of age. Active immunisation for the prevention of invasive disease caused by *Streptococcus pneumoniae* in adults ≥18 years of age and the elderly. The use of Prevenar 13® should be determined on the basis of official recommendations taking into consideration the risk of invasive disease in different age groups as well as the variability of serotype epidemiology in different geographical areas. Dosage and Administration: Dosage and Administration: For intramuscular injection. It is recommended that infants and children aged 6 weeks to 5 years receive a first dose of Prevenar 13® complete the vaccination course with Prevenar 13®. Infants aged 6 weeks-6 months: Three-dose primary series: The recommended immunization series consists of four doses, each of 0.5 ml. The primary infant series consists of three doses, with the first dose usually given at 2 months of age and with an interval of at least 1 month between doses. The first dose may be given as early as six weeks of age. The fourth (booster) dose is recommended between 11 and 15 months of age. Two-dose primary series: Alternatively, when Prevenar 13® is given as part of a routine infant immunization program, a series consisting of three doses may be given. The first dose may be administered from the age of 2 months, with a second dose 2 months later. The third (booster) dose is recommended between 11 and 15 months of age. Preterm infants (<37 weeks gestation): In preterm infants, the recommended immunization series consists of four doses, each of 0.5 ml. The primary infant series consists of three doses, with the first dose given at 2 months of age and with an interval of at least 1 month between doses. The first dose may be given as early as six weeks of age. The fourth (booster) dose is recommended between 11 and 15 months of age. Unvaccinated infants and children ≥7 months of age: Infants aged 7-11 months: Two doses, with an interval of at least 1 month between doses. A third dose is recommended in the second year of life. Children aged 12-23 months: Two doses, with an interval of at least 2 months between doses. Children and adolescents aged 2-17 years: One single dose. Prevenar 13® vaccine schedule for infants and children: Children previously vaccinated with Prevenar® (7-valent) (*Streptococcus pneumoniae* serotypes 4, 6B, 9V, 14, 18C, 19F, and 23F): Prevenar 13 contains the same 7 serotypes included in Prevenar, using the same carrier protein CRM197. Infants and children who have begun immunisation with Prevenar® may switch to Prevenar 13® at any point in the schedule. Young children (12-59 months) completely immunised with Prevenar (7-valent): Young children who are considered completely immunised with Prevenar (7-valent) should receive one dose of 0.5 ml of Prevenar 13® to elicit immune responses to the 6 additional serotypes. This dose of Prevenar 13® should be administered at least 8 weeks after the final dose of Prevenar (7-valent). Children and adolescents 5 to 17 years of age: Children 5 to 17 years of age may receive a single dose of Prevenar 13® if they have been previously vaccinated with one or more doses of Prevenar. This dose of Prevenar 13® should be administered at least 8 weeks after the final dose of Prevenar (7-valent). Adults ≥18 years of age, and the elderly: One single dose of Prevenar 13. The need for revaccination with a subsequent dose of Prevenar 13® has not been established. Regardless of prior pneumococcal vaccination status, if the use of 23-valent polysaccharide vaccine is considered appropriate, Prevenar 13® should be given first. Special Populations: Individuals who have underlying conditions predisposing them to invasive pneumococcal disease (such as sickle cell disease or HIV infection) including those previously vaccinated with one or more doses of 23-valent pneumococcal polysaccharide vaccine may receive at least one dose of Prevenar 13. Contra-indications: Hypersensitivity to the active substances, to any of the excipients, or to diphtheria toxin. As with other vaccines, the administration of Prevenar 13® should be postponed in subjects suffering from acute, severe febrile illness. However, the presence of a minor infection, such as common cold, should not result in the deferral of vaccination. Warnings and Precautions: Do not administer intravascularly. Appropriate medical treatment and supervision must be available in case of a rare anaphylactic event following the administration of the vaccine. It should not be given to individuals with thrombocytopenia or any coagulation disorder that would contraindicate intramuscular injection, but may be given subcutaneously if the potential benefit clearly outweighs the risks. Prevenar 13® will only protect against *Streptococcus pneumoniae* serotypes included in the vaccine, and will not protect against other microorganisms that cause invasive disease, pneumonia, or otitis media. As with any vaccine, Prevenar 13® may not protect all individuals receiving the vaccine from pneumococcal disease. For the most recent epidemiological information, please consult with the relevant national organization. Individuals with impaired immune responsiveness, whether due to the use of immuno-suppressive therapy, a genetic defect, human immunodeficiency virus (HIV) infection, or other causes, may have reduced antibody response to active immunisation. Safety and immunogenicity data are available for a limited number of individuals with sickle cell disease or HIV infection. Safety and immunogenicity data for Prevenar 13 are not available for individuals in other specific immunocompromised groups (e.g., malignancy, haematopoietic stem cell transplant, nephrotic syndrome) and vaccination should be considered on an individual basis. Infants and children aged 6 weeks to 5 years: Limited data have demonstrated that Prevenar® 7 valent (three-dose primary series) induces an acceptable immune response in infants with sickle cell disease with a safety profile similar to that observed in non-high-risk groups. Children younger than 2 years old should receive the appropriate-for-age Prevenar 13® vaccination series. The use of pneumococcal conjugate vaccine does not replace the use of 23-valent polysaccharide vaccine in at risk children ≥2 years of age with conditions such as sickle cell disease, asplenia, HIV infection, chronic illness or those who are immunocompromised placing them at higher risk for invasive disease due to *Streptococcus pneumoniae*. Whenever recommended, children at risk who are ≥24 months of age and already primed with Prevenar 13 should receive 23-valent pneumococcal polysaccharide vaccine. The potential risk of apnea and the need for respiratory monitoring for 48-72 hours should be considered when administering the primary immunization series to very premature infants (born ≤28 weeks of gestation) and particularly for those with a previous history of respiratory immaturity. When Prevenar 13 is administered concomitantly with Infanrix hexa (DTPa-HiB-IPV/Hib) the rates of febrile reactions are similar to those seen with concomitant administration of Prevenar (7-valent) and Infanrix hexa. Antipyretic treatment should be initiated according to local treatment guidelines for children with seizure disorders or a prior history of febrile seizures, or when vaccinating simultaneously with whole cell pertussis vaccines. Fertility, Pregnancy and Lactation: Pregnancy: There are no data from the use of pneumococcal 13-valent conjugate in pregnant women. Therefore the use of Prevenar 13 should be avoided during pregnancy. Lactation: It is unknown whether pneumococcal 13-valent conjugate is excreted in human milk. Fertility: Animal studies do not indicate direct or indirect harmful effects with respect to reproductive toxicity. Interaction with other medicinal products: Infants and children aged 6 weeks to 5 years: Prevenar 13® can be given with any of the following vaccine antigens, either as monovalent or combination vaccines: diphtheria, tetanus, acellular or whole cell pertussis, Haemophilus influenzae type b, inactivated poliovirus, hepatitis B, meningococcal serogroup C, measles, mumps, rubella, varicella and rotavirus vaccine. Side Effects: The most common adverse reactions reported in clinical studies or from post-marketing experience include: Infants and children aged 6 weeks to 5 years: Very common (≥1/10): Decreased appetite, pyrexia, irritability, any vaccination-site erythema, induration/swelling 2.5 cm × 7.0 cm (after infant series), vomiting, diarrhea, rash. In a clinical study in infants vaccinated at 2, 3, and 4 months of age, fever ≥38°C was reported at higher rates among infants who received Prevenar (7-valent) concomitantly with Infanrix hexa (28.3% to 42.3%) than in infants receiving Infanrix hexa alone (15.6% to 23.1%). After a booster dose at 12 to 15 months of age, fever ≥38°C was reported in 50.0% of infants who received Prevenar (7-valent) and Infanrix hexa at the same time as compared to 33.6% of infants receiving Infanrix hexa alone. These reactions were mostly moderate (less than or equal to 39°C) and transient. Additional information in special populations: Apnea in very premature infants (≤28 weeks of gestation): Children and adolescents aged 6 to 17 years of age: Very common (≥1/10): Decreased appetite, irritability, any vaccination-site erythema, induration/swelling or pain/tenderness, somnolence, poor quality sleep, vaccination-site tenderness (including impaired movement). Common (≥1/100 to <1/10): Headaches, vomiting, diarrhea, rash, urticaria or urticaria-like rash, pyrexia. Additional information in special populations: Children and adolescents with sickle cell disease have similar frequencies of adverse reactions, except that headaches, vomiting, diarrhea, pyrexia, fatigue, arthralgia, and myalgia were very common. Adults ≥18 years and the elderly: Very common (≥1/10): Decreased appetite, headaches, diarrhea, vomiting (in adults aged 18 to 49 years), rash, chills, fatigue, vaccination-site erythema, vaccination-site induration/swelling, vaccination-site pain/tenderness (severe vaccination-site pain/tenderness very common in adults aged 18 to 39 years), arthralgia, myalgia. Common (≥1/100 to <1/10): Vomiting (in adults aged 50 years and the elderly), pyrexia (very common in adults aged 18 to 29 years). Additional information in special populations: Adults with HIV infection free of active AIDS-related illness, CD4 cell count of ≥200 cells/μL, viral load <50,000 copies/mL previously vaccinated with the 23-valent pneumococcal polysaccharide vaccine, have similar frequencies of adverse reactions, except that vomiting was very common and nausea common. Overdose: overdose with Prevenar 13® is unlikely due to its presentation as a pre-filled syringe. However, in infants and children there have been reports of overdose with Prevenar 13® defined as subsequent doses administered closer than recommended to the previous dose. In general, adverse events reported with overdose are consistent with those that have been reported with doses given in the recommended pediatric schedules of Prevenar 13®. Storage conditions: Store in a refrigerator (2°C-8°C). Do not freeze. During storage, a white deposit and clear supernatant can be observed. The vaccine should be shaken well to obtain a homogeneous white suspension prior to expelling air from the syringe, and should be inspected visually for any particulate matter and/or variation of physical aspect prior to administration. Do not use if the content appears otherwise. Any unused medicinal product or waste material should be disposed of in accordance with local requirements. Reference: SmPC, revision September 2014. Date of revision of the abbreviated prescribing information: April 2015. Full prescribing information is available upon request.

**References:** 1. Centers for Disease Control and Prevention. 2013. Active Bacterial Core Surveillance (ABCs) Report: Emerging Infections Program Network *Streptococcus pneumoniae* 2011. <http://www.cdc.gov/abcs/reports-findings/survreports/spneu11.pdf>. Accessed September 10, 2013. 2. Kyaw MH, Rose CE Jr, Fry AM, et al; for the Active Bacterial Core Surveillance Program of the Emerging Infections Program Network. The influence of chronic illnesses on the incidence of invasive pneumococcal disease in adults. *Infect Dis* 2005;192(3):377-386. 3. Van Hoek AJ, Andrews N, Waight PA, et al. The effect of underlying clinical conditions on the risk of developing invasive pneumococcal disease in England. *J Infect* 2012;65(11):17-24. 4. Juhn YJ, Kita H, Yawn BP, et al. Increased risk of serious pneumococcal disease in patients with asthma. *J Allergy Clin Immunol* 2008;122(4):719-723. 5. Pfizer Inc, September 2014. Prevenar 13 Summary of Product Characteristics. 6. Data on file—global manufacturing and supplies. Pfizer Inc, New York, NY. 7. GlaxoSmithKline Biologicals, 21 February 2014. Synflorix® Summary of Product Characteristics.

Please see Product Information.



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Pneumococcal polysaccharide conjugate vaccine (13-valent, adsorbed)

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# SCIENTIFIC PROGRAM

DAY 1 - THURSDAY, 10 MARCH 2016

BEYOND GULF INSPIRATION

# SCIENTIFIC PROGRAM

DAY 1 - THURSDAY, 10 MARCH 2016

BEYOND GULF INSPIRATION

DAY 1 - THURSDAY, 10 MARCH 2016

DAY 1 - THURSDAY, 10 MARCH 2016

**DAY 1 - THURSDAY, 10 MARCH 2016 | 08:30 - 10:30 BANIYAS II HALL**

	<b>Update in Pulmonary Medicine I</b> Chairing: Atul Malhotra (USA)   Mohamed S. Al Hajjaj (KSA)
08:30 - 09:00	Severe Asthma: An Update on Diagnosis and Management - Param Nair (Canada)
09:00 - 09:30	IL-5 From Discovery to Clinical Implication - Qutayba Hamid (Canada)
09:30 - 10:00	IPF: Emerging Therapies - Jürgen Behr (Germany)
10:00 - 10:30	COFFEE BREAK

**DAY 1 - THURSDAY, 10 MARCH 2016 | 10:30 - 11:45 BANIYAS II HALL**

	<b>Asthma Update - I</b> Chairing: Hatem Qutub (KSA)   Mirza Al Sayegh (UAE)
10:30 - 10:55	Biomarkers in Asthma - Nicola Hanania (USA)
10:55 - 11:20	Asthma in The Athlete and in the Obese - Louis-Phillipe Boulet (Canada)
11:20 - 11:45	SINA Guidelines 2016- What is Different? - Mohammed Al Ghobain (KSA)
<b>11:45 - 13:00</b>	<b>Opening Ceremony</b>
13:00 - 14:00	LUNCH BREAK

**DAY 1 - THURSDAY, 10 MARCH 2016 | 14:00 - 15:15 BANIYAS II HALL**

	<b>Asthma Update - II</b> Chairing: Hussain Al Matar (KSA)
14:00 - 14:25	Potential New Therapies for Asthma - Dave Singh (UK)
14:25 - 14:50	Effect of low Vitamin D on Asthmatics: A Regional Study - Bassam Mahboub (UAE)
14:50 - 15:15	The Right Patient for Thermoplasty - Hani Lababidi (KSA)
15:15 - 15:45	COFFEE BREAK

**DAY 1 - THURSDAY, 10 MARCH 2016 | 15:45 - 17:00 BANIYAS II HALL**

	<b>Pulmonary Hypertension</b> Chairing: Ali Al Azem (KSA)   Brian Allwood (South Africa)
15:45 - 16:10	What are the Major Updates in the New ERS Pulmonary Hypertension Guidelines? - Adriano Tonelli (USA)
16:10 - 16:35	Pulmonary Arterial Hypertension; Is it the Time for Outcome-Oriented Therapy? - Majdy Idrees (KSA)
16:35 - 17:00	CTEPH; Medical and Surgical Treatment an Update - Abdullah Al Dalaan (KSA)

**DAY 1 - THURSDAY, 10 MARCH 2016 | 10:30 - 11:45 AL-AMEERA I HALL**

	<b>Rare Lung Diseases - I</b> Chairing: Qutayba Hamid (Canada)   Amr Albanna (KSA)
10:30 - 10:55	Pulmonary Hypertension in Rare Lung Diseases - Adriano Tonelli (USA)
10:55 - 11:20	Molecular Targets in Pulmonary Fibrosis - Martin Kolb (Canada)
11:20 - 11:45	CF for the Pulmonologist: Nuts and Bolts - Elliot Dasenbrook (USA)
<b>11:45 - 13:00</b>	<b>Opening Ceremony</b>

**DAY 1 - THURSDAY, 10 MARCH 2016 | 14:00 - 15:15 AL-AMEERA I HALL**

	<b>Rare Lung Diseases - II</b> Chairing: Manal Alhazmi (KSA)   Emad Kowatli (UAE)
14:00 - 14:25	Eosinophils in the Lung, Good or Bad News?? - Qutayba Hamid (Canada)
14:25 - 14:50	Mesothelioma; Is it Really Rare Now? - Dean Fennell (UK)
14:50 - 15:15	Eosinophilic Lung Disorders: Evaluation and Management - Param Nair (Canada)
15:15 - 15:45	COFFEE BREAK

**DAY 1 - THURSDAY, 10 MARCH 2016 | 15:45 - 17:00 AL-AMEERA I HALL**

	<b>Rare Lung Diseases - III</b> Chairing: Bader Al Rashedi (Kuwait)
15:45 - 16:10	Sleep Apnea and Cancer - David Gozal (USA)
16:10 - 16:35	Laryngeal Hypersensitivity - Cough and Beyond - James Hull (UK)
16:35 - 17:00	

**DAY 1 - THURSDAY, 10 MARCH 2016 | 10:30 - 11:45 AL-AMEERA II HALL**

	<b>Critical Care Medicine</b> Chairing: Hadil Al-Otair (KSA)
10:30 - 10:55	Managing Respiratory Failure: The Year in Review - Neil R. MacIntyre (USA)
10:55 - 11:20	Biomarkers for Sepsis: What is the Future? - Ahmed Al Jabbar (KSA)
11:20 - 11:45	ARDS Update - Atul Malhotra (USA)
<b>11:45 - 13:00</b>	<b>Opening Ceremony</b>

**DAY 1 - THURSDAY, 10 MARCH 2016 | 14:00 - 15:15 AL-AMEERA II HALL**

	<b>Respiratory Critical Care</b> Chairing: Abdulaziz Al Otaibi (KSA)
14:00 - 14:25	Updates in Mechanical Ventilation More Questions Than Answers? - David Grooms (USA)
14:25 - 14:50	Patient-Ventilator Synchrony: Clinical Significance and New Technology - Ghazi Alotaibi (KSA)
14:50 - 15:15	Chronic Domiciliary Ventilation; Where are we Now? - Mark Elliott (UK)
15:15 - 15:45	COFFEE BREAK

**DAY 1 - THURSDAY, 10 MARCH 2016 | 15:45 - 17:00 AL-AMEERA II HALL**

	<b>Cystic Fibrosis</b> Chairing: Bulent Karadag (Turkey)   Fatimah Al Jassim (UAE)
15:45 - 16:10	New Advances in Cystic Fibrosis - Elliot Dasenbrook (USA)
16:10 - 16:35	Allergic Bronchopulmonary Aspergillosis in Cystic Fibrosis - Ibrahim Al Janahi (Qatar)
16:35 - 17:00	Cystic Fibrosis Registry: Local Experience - Hanaa Banjar (KSA)

# SCIENTIFIC PROGRAM

DAY 1 - THURSDAY, 10 MARCH 2016

BEYOND GULF INSPIRATION

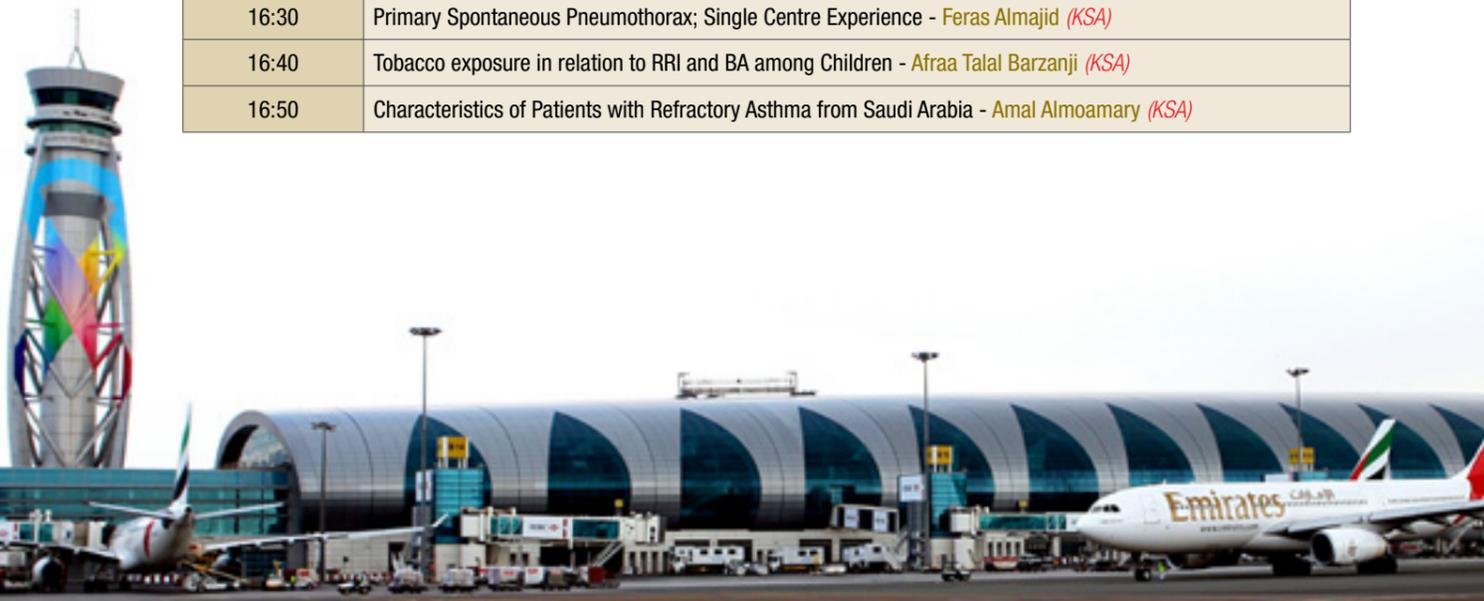
# SCIENTIFIC PROGRAM

DAY 1 - THURSDAY, 10 MARCH 2016

BEYOND GULF INSPIRATION

DAY 1 - THURSDAY, 10 MARCH 2016   10:30 - 11:45		AL-AMEERA III HALL
	<b>Thromboembolic Diseases</b>	
	Chairing: <i>Alaa Ghabashi (KSA)</i>	
10:30 - 10:55	Acute PE: Risk Stratification and Management - <i>Robin Condliffe (UK)</i>	
10:55 - 11:20	What are the Major Updates in the New ACCP Guidelines on VTE? - <i>Fahad Al Hameed (KSA)</i>	
11:20 - 11:45	New Oral Anti-Coagulants; Which is which? - <i>Hazzaa Alzahrani (KSA)</i>	
<b>11:45 - 13:00</b>	<b>Opening Ceremony</b>	
13:00 - 14:00	LUNCH BREAK	
DAY 1 - THURSDAY, 10 MARCH 2016   14:00 - 15:15		AL-AMEERA III HALL
	<b>Abstracts Presentations - A</b>	
	Chairing: <i>Mohammed Al Shatti (Kuwait)</i>	
14:25 - 15:45	Introductory Lecture (25 Min)	
14:25	Xpert MTB/RIF Assay and the Diagnosis of Tuberculosis Pleural Effusion - <i>Mohammad Yahya Abdulrazaq (Iraq)</i>	
14:35	Proportional Assist Ventilation Versus Pressure Support Ventilation in Prolonged Mechanically Ventilated Patients - <i>Hassan Ali Al Gazwi (KSA)</i>	
14:45	Lung Cancer Survival in the United Kingdom: A Ten Year Experience - <i>Henrietta Wilson (UK)</i>	
14:55	Depression and its associated factors among Obstructive Sleep Apnea patients: A comparative study at King Abdulaziz University Hospital, Jeddah, 2013 - <i>Sameerah Musalim Albugami (KSA)</i>	
15:05	Role of Chest Ultrasonography in Prognosis of Community-Acquired Pneumonia - <i>Muhammed A. Anas (India)</i>	
15:05 - 15:45	COFFEE BREAK	
DAY 1 - THURSDAY, 10 MARCH 2016   15:45 - 17:00		AL-AMEERA III HALL
	<b>Abstracts Presentations - B</b>	
	Chairing: <i>Atul Malhotra (USA)   Saif Al Kaabi (UAE)</i>	
16:10 - 17:00	<b>How to Write a Grant? - Atul Malhotra (USA)</b>	
16:10	Symptoms of Excessive daytime sleepiness and Risk for Obstructive Sleep Apnea among Liver Cirrhosis patients - <i>Fares Aljahdali (KSA)</i>	
16:20	Chewing Tobacco and Non-Small Cell Lung Cancer in Algerian Population - <i>Houda Jamous (Algeria)</i>	
16:30	Primary Spontaneous Pneumothorax; Single Centre Experience - <i>Feras Almajid (KSA)</i>	
16:40	Tobacco exposure in relation to RRI and BA among Children - <i>Afraa Talal Barzanji (KSA)</i>	
16:50	Characteristics of Patients with Refractory Asthma from Saudi Arabia - <i>Amal Almoamary (KSA)</i>	

DAY 1 - THURSDAY, 10 MARCH 2016   08:30 - 13:00		BANIYAS III HALL
08:30 - 13:00	Medical Students Forum (MSF2016)	  
DAY 1 - THURSDAY, 10 MARCH 2016   14:00 - 15:00		BANIYAS III HALL
14:00 - 15:00	Pneumococcal Vaccination: An Update on Current Perspectives in Adults	
DAY 1 - THURSDAY, 10 MARCH 2016   15:00 - 17:00		BANIYAS III HALL
15:00 - 16:00	New Approach in Managing Asthma and COPD Patients	
16:00 - 17:00	Advanced Ventilation Techniques- What Is New Today?	
DAY 1 - THURSDAY, 10 MARCH 2016   19:00 - 20:30		BANIYAS III HALL
19:00 - 20:30	Exploring the Bronchial Tree in Asthma for Real-Life Outcomes	
DAY 1 - THURSDAY, 10 MARCH 2016   16:00 - 17:30		AL REMAL HALL
16:00 - 17:30	DLCO - A Strong parameter In PFT differential diagnosis a workshop with hands-on experience	
<b>END OF DAY 1</b>		
21:00	Faculty Dinner Hosted by: Mundi Pharma Place: Garden 1, Grand Hyatt Hotel, Dubai	



# SCIENTIFIC PROGRAM

DAY 2 - FRIDAY, 11 MARCH 2016

BEYOND GULF INSPIRATION

# SCIENTIFIC PROGRAM

DAY 2 - FRIDAY, 11 MARCH 2016

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DAY 2 - FRIDAY, 11 MARCH 2016

DAY 2 - FRIDAY, 11 MARCH 2016

**DAY 2 - FRIDAY, 11 MARCH 2016 | 08:30 - 10:30 BANIYAS II HALL**

	<b>Update in Pulmonary Medicine II</b> Chairing: Mark Elliott (UK)   Mohamed Al Moamary (KSA)
08:30 - 09:00	Advances in the Management of Community-Acquired Pneumonia - Mark Woodhead (UK)
09:00 - 09:30	Noninvasive Ventilation in Acute Hypercapnic Respiratory Failure - State of The Art - Mark Elliott (UK)
09:30 - 10:00	PAH: The Year in Review - Robin Condliffe (UK)
10:00 - 10:30	Management of Lung Cancer: The Year in Review - Dean A. Fennell (UK)
10:30 - 10:40	<b>PRESENTATION OF THE ANNALS OF THORACIC MEDICINE BEST THREE ABSTRACTS AWARD</b>
10:30 - 11:00	COFFEE BREAK

**DAY 2 - FRIDAY, 11 MARCH 2016 | 11:00 - 12:15 BANIYAS II HALL**

	<b>COPD - I</b> Chairing: Abdulghafoor Gari (KSA)   Javid Khan (KSA)
11:00 - 11:25	Phenotypes of COPD - Nicola Hanania (USA)
11:25 - 11:50	New Combination Therapies for COPD - Dave Singh (UK)
11:50 - 12:15	Non-Surgical Lung Volume Reduction - Pallav Shah (UK)
13:00 - 14:00	LUNCH BREAK

**DAY 2 - FRIDAY, 11 MARCH 2016 | 14:00 - 15:15 BANIYAS II HALL**

	<b>COPD - II</b> Chairing: Yaqoub Al Mahrouqi (Oman)
14:00 - 14:25	ACOS: Clinical Point of View - Louis-Phillipe Boulet (Canada)
14:25 - 14:50	COPD - Preventing Exacerbations and Re-Admissions - Neil R. MacIntyre (USA)
14:50 - 15:15	ICS in COPD: Pros and Cons - Feisal Al Kassimi (KSA)
15:15 - 15:45	COFFEE BREAK

**DAY 2 - FRIDAY, 11 MARCH 2016 | 15:45 - 17:00 BANIYAS II HALL**

	<b>Thoracic Imaging</b> Chairing: Suha H. AlBadr (KSA)
15:45 - 16:10	Pulmonary Nodule: Fleischner Society Guidelines - Atul C. Mehta (USA)
16:10 - 16:35	Imaging in PH - Adriano Tonelli (USA)
16:35 - 17:00	Imaging in MERS-CoV - Amr Ajlan (KSA)

**DAY 2 - FRIDAY, 11 MARCH 2016 | 11:00 - 12:15 AL-AMEERA I HALL**

	<b>Board Review Interactive Session</b> Chairing: Battal Al-Dosary (KSA)   Badr Al-Sayed (KSA)
11:00 - 11:25	Pleural Effusion - Atul C. Mehta (USA)
11:25 - 11:50	Lung Infection in Immunocompromised - Mark Woodhead (UK)
11:50 - 12:15	Interstitial Lung Disease - Jeffrey Chapman (UAE)

**DAY 2 - FRIDAY, 11 MARCH 2016 | 14:00 - 15:15 AL-AMEERA I HALL**

	<b>Allergy - Immunology - I</b> Chairing: Chairing: Rand Arnaout (KSA)   Rabea Khouqeer (KSA)
14:00 - 14:25	Update on Basic Immunology - Azzam Maghazachi (UAE)
14:25 - 14:50	Allergic March - Yazan Said (KSA)
14:50 - 15:15	Respiratory Vaccine Efficacy and Lung Transplantation Immunosuppression: Two Sides of the Same Coin Tom Kotsimbos (Australia)
15:15 - 15:45	COFFEE BREAK

**DAY 2 - FRIDAY, 11 MARCH 2016 | 15:45 - 17:00 AL-AMEERA I HALL**

	<b>What is New in Other Specialties?</b> Chairing: Reyadh Salman (Bahrain)   Nawal Al Sharawani (KSA)
15:45 - 16:10	Cardiology: What is New? - Ahmed Gabroun (UAE)
16:10 - 16:35	Current Updates on Diabetes Treatment - Omar Dhaimat (UAE)
16:35 - 17:00	Biologics- Evolution and Revolution in the Management of Arthritis - Suad Hannawi (UAE)

**DAY 2 - FRIDAY, 11 MARCH 2016 | 11:00 - 12:15 AL-AMEERA II HALL**

	<b>Sleep Medicine</b> Chairing: Adel Al Harbi (KSA)   Mohammed Alhajji (KSA)
11:00 - 11:25	Adenotonsillectomy for Pediatric OSA: The Good, the Bad and the Ugly - David Gozal (USA)
11:25 - 11:50	Individualized Therapy for Sleep Apnea - Atul Malhotra (USA)
11:50 - 12:15	Asymptomatic OSA: To Treat or Not to Treat? - Abdulaziz Al Hashemi (Qatar)

**DAY 2 - FRIDAY, 11 MARCH 2016 | 14:00 - 15:15 AL-AMEERA II HALL**

	<b>Lung Infections I</b> Chairing: Hamdan Al Jahdali (KSA)   Issa Al Jahdhami (Oman)
14:00 - 14:25	Latent TB; IGRA or Do Not IGRA - Abdulrahman Al Rajhi (KSA)
14:25 - 14:50	Bronchiectasis Nuts and Bolts - Elliot Dasenbrook (USA)
14:50 - 15:15	New Drugs for Resistant TB - Laila Al Dabal (UAE)
15:15 - 15:45	COFFEE BREAK

**DAY 2 - FRIDAY, 11 MARCH 2016 | 15:45 - 17:00 AL-AMEERA II HALL**

	<b>Lung Infections II</b> Chairing: Husain Al Awadhi (UAE)   Ayse Filiz Kosar (Turkey)
15:45 - 16:10	MERS-CoV; An Update - Abdullah Al Assiri (USA)
16:10 - 16:35	Emergent Infections, Emergent Thinking: Lessons from H1N1 09 Pandemic Influenza Tom Kotsimbos (Australia)
16:35 - 17:00	Highlights on Saudi Guidelines for Pneumococcal Vaccinations - Mohamed Al Moamary (KSA)

# SCIENTIFIC PROGRAM

DAY 2 - FRIDAY, 11 MARCH 2016

BEYOND GULF INSPIRATION

# SCIENTIFIC PROGRAM

DAY 2 - FRIDAY, 11 MARCH 2016

BEYOND GULF INSPIRATION

DAY 2 - FRIDAY, 11 MARCH 2016   11:30 - 11:45		AL-AMEERA III HALL
<b>Industry Sponsored Session</b>		
Chairing: Maha Dabagh (KSA)		
11:00 - 11:20	Flutiform® HDI Inhaler	
11:20 - 11:40	ELLIPTA®	
11:40 - 12:00	Foster® pMDI	
12:00 - 12:20	Genuair® (Eklira®/Duaklir®)	
13:00 - 14:00	LUNCH BREAK	
DAY 2 - FRIDAY, 11 MARCH 2016   14:00 - 15:15		AL-AMEERA III HALL
<b>Respiratory Care</b>		
Chairing: Mania Al Baqawi (KSA)		
14:00 - 14:25	What's New In The ICU? Prone Positioning, VDR, Esophageal Guided PEEP, & Inhaled Flolan	David Grooms (USA)
14:25 - 14:50	Novel Techniques for the Assessment of Early Changes within Lungs Periphery in Cystic Fibrosis	Noor Al-Khathlan (KSA)
14:50 - 15:15		
15:15 - 15:45	COFFEE BREAK	
DAY 2 - FRIDAY, 11 MARCH 2016   15:45 - 17:00		AL-AMEERA III HALL
<b>Meet the Expert</b>		
Chairing: Abdullah Al-Shimemeri (KSA)   Hatem Al Ameri (UAE)		
15:45 - 16:10	How to set up a Contemporary Sleep Medicine Centre -	Mohammed Al Houqani (UAE)
16:10 - 16:35	How to set up a Contemporary Pulmonary Rehabilitation Centre -	Mohamed Al Moamary (KSA)
16:35 - 17:00	How to set up a Contemporary Pulmonary Function Laboratory -	Hessa Al Otaibi (KSA)

DAY 2 - FRIDAY, 11 MARCH 2016   08:30 - 13:00		BANIYAS III HALL
08:30 - 13:00	Medical Students Forum (MSF2016)	  
DAY 2 - FRIDAY, 11 MARCH 2016   15:00 - 17:00		BANIYAS III HALL
15:30 - 16:30	Approaches for Severe Asthma Management	
DAY 2 - FRIDAY, 11 MARCH 2016   15:45 - 18:00		AL REMAL HALL
08:30 - 15:00	Master Class on: The Roles of Pathologists in Personalized Therapy of NSCLC	  
15:45 - 18:00	CYSTIC FIBROSIS SYMPOSIUM	
<b>END OF DAY 2</b>		



# SCIENTIFIC PROGRAM

DAY 3 - SATURDAY, 12 MARCH 2016



# TOF2016 SCIENTIFIC PROGRAM

DAY 1 - FRIDAY, 11 MARCH 2016



**DAY 3 - SATURDAY, 12 MARCH 2016 | 08:30 - 10:30 BANIYAS II HALL**

<b>Update in Pulmonary Medicine III</b>	
Chairing: Sulaiman Al-Majed (KSA)   Yahia Abu Sabaa (KSA)	
08:30 - 09:00	Bronchoscopy: Past, Present and Future, Connecting the Dots - Atul C. Mehta (USA)
09:00 - 09:30	Lung Cancer Screening - Pallav Shah (UK)
09:30 - 10:00	
10:00 - 10:30	Lung Transplant: The Saudi Experience - Imran Nizami (KSA)
10:30 - 11:00	COFFEE BREAK

**DAY 3 - SATURDAY, 12 MARCH 2016 | 11:00 - 12:15 BANIYAS II HALL**

<b>Challenging Clinical Cases</b>	
Chairing: Mohamed Zeitouni (KSA)   Sarfraz Saleemi (KSA)	
11:00 - 11:25	A Case of Fever Polyarthrits - Javid Khan (Pakistan) Master Radiologist: Jung-Gi Im (S. Korea)
11:25 - 11:50	A Case of Lung Mass - Lucman Anwer (KSA) Master Radiologist: Mashael K. Al Rujuib (KSA) Master Pathologist: Walid E. Khalbuss (KSA)
11:50 - 12:15	A Case of Intrathoracic Cyst - Esra Yarar (Turkey) Master Radiologist: Donya A. Al-Hassan (KSA) Master Pathologist: Fouad Al Dayel (KSA)
12:15 - 12:40	A Case of Pemphigus Vulgaris - Bharat Toshniwal (India) Master Radiologist: Jung-Gi Im (S. Korea)

**DAY 3 - SATURDAY, 12 MARCH 2016 | 08:30 - 10:30 AL-AMEERA I HALL**

<b>Advances in the Management of Thoracic Malignancy</b>	
Chairing: Khaled M. Al Kattan (KSA)	
08:30 - 08:55	Update in Immunotherapy in Lung Cancer - Abdul Rahman Jazieh (KSA)
08:55 - 09:20	Surgical Updates on Lung Cancer - Emma Beddow (UK)
09:20 - 09:45	Innovation in Radiation Oncology - Saif Al Thaqfi (KSA)
09:45 - 10:10	Thymic Malignancy: Toward Global Collaboration; ITMIG as An Example - Abdulhadi Almutairi (USA)
10:10 - 10:30	Panel Discussion

**DAY 3 - SATURDAY, 12 MARCH 2016 | 11:00 - 12:15 AL-AMEERA I HALL**

<b>Supportive Multidisciplinary Care for Lung Cancer</b>	
Chairing: Khalid Al Saleh (KSA)   Sarah Al Ghanem (KSA)	
11:00 - 11:25	Supportive and Palliative Care in Lung Cancer - Atul C. Mehta (USA)
11:25 - 11:50	Role of Surgery in Symptom Management in Lung Cancer - Emma Beddow (UK)
11:50 - 12:15	Management of Bone Disease in Lung Cancer - Hassan Jaafar (UAE)

**DAY 3 - SATURDAY, 12 MARCH 2016 | 11:00 - 12:15 BANIYAS III HALL**

<b>Pulmonary Medicine for Non-Pulmonologist</b>	
Chairing: Soror Al-Aithan (KSA)   Saleh Al Azmi (Kuwait)	
11:00 - 11:25	Top 10 Diagnosis Not to Miss on Chest X-Ray - Amr M. Ajlan (KSA)
11:25 - 11:50	Dyspnea - Can't Catch a Breath - James Hull (UK)
11:50 - 12:15	Approach to Noisy Breathing in Children - Nizar Kherallah (Qatar)

END OF CONGRESS

**DAY 1 - FRIDAY, 11 MARCH 2016 | 08:30 - 15:00 AL REMAL HALL**

**SESSION 1: PATHOLOGICAL AND MOLECULAR WORK UP OF NSCLC CANCER**

**CHAIRS:** Prof. Abdul Rahman Jazieh - KSA | Prof. Fouad Al Dayel - KSA

TIME	SUBJECT	OBJECTIVE	SPEAKER
08:30 - 08:55	Classification of Lung Cancer	Discuss the latest Pathological and Molecular classification of NSCLC	Hanaa Bamefleh - KSA
08:55 - 09:20	Liquid Biopsy	Describe alternative tests to Tumor Tissue Biopsy and the utilization of Liquid Biopsy	Prof. Walid E. Khalbuss - KSA
09:20 - 09:45	Next Gen and beyond	Discuss Next Gen and other Testing Techniques	Alaa Alsalmim - KSA
09:45 - 10:10	Testing for PD1 and PDL1	Describe Testing Methods and Value of Testing	Prof. Walid E. Khalbuss - KSA
10:10 - 10:30	Q & A		
10:30 - 11:00	COFFEE BREAK		

**SESSION 2: EGFR MUTATION AND ALK ABNORMALITY**

**CHAIRS:** Prof. Walid E. Khalbuss - KSA | Hanaa Bamefleh - KSA

11:00 - 11:30	Understanding EGFR Mutation and Resistance	What is EGFR Mutation and the types of Mutations	Prof. Fouad Al Dayel - KSA
11:30 - 12:00	ALK Testing and Resistance	Describe the ALK Testing using FISH vs IHC	Wasim F. Raslan - KSA
12:00 - 14:00	LUNCH BREAK / PRAYER		

**SESSION 3: CLINICAL IMPLICATION OF MOLECULAR FINDINGS**

**CHAIRS:** Ashwaq Al Olayan - KSA | Azzam Khankan - KSA

14:00 - 14:25	Clinical Impact of Molecular Abnormalities	Overview of the benefits of targeting EGFR and ALK	Jamal Zekri - KSA
14:25 - 14:50	Overview of Immuno Oncology	Update on Immuno Oncology especially Checkpoint inhibitors	Khalid Alsaleh - KSA
14:50 - 15:00	Q & A		
15:00	Distribution of Certificates		



# TOF2016 SCIENTIFIC PROGRAM

DAY 2 - SATURDAY, 12 MARCH 2016

BEYOND GULF INSPIRATION

DAY 2 - SATURDAY, 12 MARCH 2016   08:30 - 12:15		AL AMEERA I HALL
<b>SESSION 1: ADVANCES IN THE MANAGEMENT OF THORACIC MALIGNANCY</b>		
<b>CHAIR:</b> Prof. Abdul Rahman Jazieh - KSA   Khaled Al Kattan - KSA		
TIME	SUBJECT	SPEAKER
08:30 - 08:55	Update in Immunotherapy in Lung Cancer	Prof. Abdul Rahman Jazieh - KSA
08:55 - 09:20	Surgical Updates on Lung Cancer	Emma Beddow - UK
09:20 - 09:45	Innovation in Radiation Oncology	Saif Al Thaqfi - KSA
09:45 - 10:10	Thymic Malignancy: Toward Global Collaboration; ITMIG as An Example	Abdulhadi Almutairi - KSA
10:10 - 10:30	Panel Discussion	
10:30 - 11:00	<b>COFFEE BREAK</b>	
<b>SESSION 2: SUPPORTIVE MULTIDISCIPLINARY CARE FOR LUNG CANCER</b>		
<b>CHAIR:</b> Khalid Al Saleh - KSA   Sarah Al Ghanem - KSA		
11:00 - 11:25	Supportive and Palliative Care in Lung Cancer	Atul C. Mehta - USA
11:25 - 11:50	Role of Surgery in Symptom Management in Lung Cancer	Emma Beddow - UK
11:50 - 12:15	Management of Bone Disease in Lung Cancer	Hassan Jaafar - UAE
12:15	<b>Adjourn</b>	

## MEA RESPIRATORY SUMMIT Gulf Thoracic 2016



Iranian Society of Pulmonology

SATURDAY, 12 MARCH 2016 | TIME: 09:00-13:00

AL MANZIL MEETING ROOM, GRAND HYATT HOTEL

CHAIRPERSONS: Prof. Mohammad Al-Hajjaj - Dr. Bassam Mahboob

TIME	SOCIETY	SPEAKER	TOPIC
09:00 - 09:10	Saudi Thoracic Society (STS)	Prof. Mohammad Al-Hajjaj	Welcome
09:10 - 09:30	Egyptian Society for Bronchology	Prof. Tarek Safwat	Society Introduction and Highlights on COPD in Egypt
09:30 - 09:50	Iranian Society of Pulmonology	Dr. Khalil Ansarin	Society Introduction and Highlights on COPD in Iran
09:50 - 10:10	Jordanian Thoracic Society	Dr. Haytham Khushman	Society Introduction and Highlights on COPD in Jordan
10:10 - 10:20	Saudi Thoracic Society (STS)	Dr. Javed Khan	COPD in Saudi Arabia
10:20 - 10:40	<b>COFFEE BREAK</b>		
10:40 - 11:00	South African Thoracic Society (SATA)	Dr. Brain Allwood	Society Introduction and Highlights on COPD in South Africa
11:00 - 11:20	Turkish Respiratory Society (TUSAD)	Asst. Prof. Ayse Filiz Kosar	Society Introduction and Highlights on Epidemiology of COPD in Turkey
11:20 - 11:40	Turkish Thoracic Society (TORAKS)	Prof. Dr. Bulent Karadag	Society Introduction and Highlights on COPD in Turkey
11:40 - 12:00	UAE Society	Dr. Bassam Mahboob	Society Introduction and Highlights on COPD in UAE
12:00 - 12:30	AstraZeneca	Dr. Marwan Tabbal	COPD Disease Management Plan
12:30 - 13:00	Business Meeting	Prof. Mohammad Al-Hajjaj	

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**Gulf Thoracic**  
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9-12 MARCH  
Grand Hyatt Hotel, Dubai, UAE

Relvar Ellipta is for patients (≥12 years) in need of asthma maintenance therapy, patients not adequately controlled with inhaled corticosteroids and 'as-needed' inhaled short-acting beta<sub>2</sub>-agonists<sup>1</sup>

Asthma

Because I simply don't have space for asthma



For patients like Sarah, every day is full on, so even small reminders of asthma can have an impact. So, when they're uncontrolled on ICS alone, choose new Relvar Ellipta:

- The first ICS/LABA combination to deliver continuous 24-hour efficacy<sup>2</sup>...
- In a practical, once-daily dose<sup>1</sup>...
- Delivered in an easy to use device that patients prefer to their current inhaler<sup>3,4\*</sup>

RELVAR™ ELLIPTA™

(fluticasone furoate and vilanterol inhalation powder)

Practical efficacy

Relvar Safety data:

RELVAR ELLIPTA should not be used to treat acute asthma symptoms or an acute exacerbation in COPD.<sup>1</sup> -RELVAR ELLIPTA should be used with caution in patients with severe cardiovascular disease<sup>1</sup> -Relvar Ellipta 200/25 micrograms is not indicated for patients with COPD.<sup>1</sup> Safety and tolerability data from the Relvar clinical development programme: Most common adverse events: Headache and pharyngitis. Other common adverse events: Bronchitis, influenza, candidiasis, cough, dysphonia, oropharyngeal pain, sinusitis, fractures, pyrexia, back pain, arthralgia, rhinitis, upper respiratory tract infections, pneumonia. In common with other ICS-containing medicines, there is an increased risk of pneumonia in COPD patients treated with Relvar. The maximum recommended dose is Relvar Ellipta 200/25 micrograms once daily.<sup>1</sup>

**Abbreviated Prescribing Information for use in Gulf and Near East based on GDS Version Number GDS02/PI02 and RELVARTM ELLIPTATM Fluticasone furoate/ vilanterol prescribing information (1000000115158)**

**Indications Asthma** Relvar Ellipta is indicated for the regular treatment of asthma in adults and adolescents aged 12 years and older where use of a combination medicinal product (long-acting beta<sub>2</sub>-agonist and inhaled corticosteroid) is appropriate. \* patients not adequately controlled with inhaled corticosteroids and 'as needed' inhaled short acting beta<sub>2</sub>-agonists. Relvar Ellipta 92 micrograms/22 micrograms inhalation powder, pre-dispensed COPD (Chronic Obstructive Pulmonary Disease) Relvar Ellipta is indicated for the symptomatic treatment of adults with COPD with a FEV<sub>1</sub>-70% predicted normal (post-bronchodilator) with an exacerbation history despite regular bronchodilator therapy. **Dosage and Administration Posology Asthma Adults and adolescents aged 12 years and over** One inhalation of Relvar Ellipta once daily. Patients usually experience an improvement in lung function within 15 minutes of inhaling Relvar Ellipta. If symptoms arise in the period between doses, an inhaled, short-acting beta<sub>2</sub>-agonist should be taken for immediate relief. A starting dose of Relvar Ellipta 92/22 micrograms should be considered for adults and adolescents 12 years and over who require a low to mid dose of inhaled corticosteroid in combination with a long-acting beta<sub>2</sub>-agonist. If patients are inadequately controlled on Relvar Ellipta 92/22 micrograms, the dose can be increased to 184/22 micrograms, which may provide additional improvement in asthma control. Patients should be regularly reassessed by a healthcare professional so that the strength of fluticasone furoate/vilanterol they are receiving remains optimal and is only changed on medical advice. The dose should be titrated to the lowest dose at which effective control of symptoms is maintained. Relvar Ellipta 184/22 micrograms should be considered for adults and adolescents 12 years and over who require a higher dose of inhaled corticosteroid in combination with a long-acting beta<sub>2</sub>-agonist. The maximum recommended dose is Relvar Ellipta 184/22 micrograms once daily. Patients with asthma should be given the strength of Relvar Ellipta containing the appropriate fluticasone furoate (FF) dosage for the severity of their disease. Prescribers should be aware that in patients with asthma, fluticasone furoate (FF) 100 micrograms once daily is approximately equivalent to fluticasone propionate (FP) 250 micrograms twice daily, while FF 200 micrograms once daily is approximately equivalent to FP 500 micrograms twice daily. **Children aged under 12 years** The safety and efficacy of Relvar Ellipta in children under 12 years of age has not yet been established in the indication for asthma. No data are available. **COPD Adults aged 18 years and over** One inhalation of Relvar Ellipta 92/22 micrograms once daily. Relvar Ellipta 184/22 micrograms is not indicated for patients with COPD. There is no additional benefit of the 184/22 micrograms dose compared to the 92/22 micrograms dose and there is a potential increased risk of pneumonia and systemic corticosteroid-related adverse reactions. Patients usually experience an improvement in lung function within 16-17 minutes of inhaling Relvar Ellipta. **Special populations** Elderly patients (>65 years) and **Renal impairment** No dose adjustment is required in these populations. **Hepatic impairment** For patients with moderate or severe hepatic impairment the maximum dose is 92/22 micrograms. **Method of administration** Relvar Ellipta is for inhalation use only. It should be administered at the same time of the day, each day. If a dose is missed the next dose should be taken at the usual time the next day. If stored in a refrigerator, the inhaler should be allowed to return to room temperature for at least an hour before use. After inhalation, patients should rinse their mouth with water without swallowing. **Contraindications** RELVAR ELLIPTA is contraindicated in patients with severe milk-protein allergy or who have demonstrated hypersensitivity to either fluticasone furoate, vilanterol or any of the excipients. **Warnings and Precautions** RELVAR ELLIPTA should not be used to treat acute asthma symptoms or an acute exacerbation in COPD, for which a short-acting bronchodilator is required. As with other inhalation therapy, paradoxical bronchospasm may occur with an immediate increase in wheezing after dosing. This should be treated immediately with a short-acting inhaled bronchodilator. RELVAR ELLIPTA should be discontinued immediately, the patient assessed and alternative therapy instituted if necessary. Asthma-related adverse events and exacerbations may occur during treatment with RELVAR ELLIPTA. Patients should be asked to continue treatment but to seek medical advice if asthma symptoms remain uncontrolled or worsen after initiation of RELVAR ELLIPTA. RELVAR ELLIPTA should be used with caution in patients with severe cardiovascular disease. Systemic effects may occur with any inhaled corticosteroid, particularly at high doses prescribed for long periods. RELVAR ELLIPTA should be administered with caution in patients with pulmonary tuberculosis or in patients with chronic or untreated infections. **Interactions: Interaction with CYP3A4 inhibitors** Care is advised when co-administering with strong CYP 3A4 inhibitors (e.g. ketoconazole, ritonavir) as there is potential for an increased systemic exposure to both fluticasone furoate and vilanterol, which could lead to an increase in the potential for adverse reactions (see Pharmacokinetics). **Pregnancy and Lactation: Pregnancy** Administration of fluticasone furoate/vilanterol to pregnant women should only be considered if the expected benefit to the mother is greater than any possible risk to the foetus. A decision must be made whether to discontinue breast-feeding or to discontinue RELVAR ELLIPTA therapy taking into account the benefit of breast-feeding for the child and the benefit of therapy for the woman. **Adverse reactions** These adverse events are listed by system organ class and frequency. The following convention has been used for the classification of adverse reactions: Very common: ≥1/10. Common: ≥1/100 to <1/10. Uncommon: ≥1/1000 to <1/100. Rare: ≥1/10000 to <1/1000. Very rare: <1/10000. **Very common:** Nasopharyngitis, Headache, Oropharyngeal pain, Sinusitis, Pharyngitis, Rhinitis, Cough and Dysphonia. **Common:** Pneumonia\*, Upper Respiratory Tract Infection, Bronchitis, Influenza, Candidiasis of mouth and throat, Abdominal pain, Arthralgia, Back pain, Fracture\*\* and Pyrexia. **Uncommon:** Extremities, Inhaler, but it will no longer be available. It is not possible to accidentally take extra medicine or a double dose in one inhalation. **Abbreviated Prescribing Information was prepared on 10.7.2014, from GDS Version Number GDS02/PI02, Date of issue: 18 December 2012 and RELVARTM ELLIPTATM prescribing information (1000000115158).**

References: 1. Relvar Ellipta Summary of Product Characteristics, GlaxoSmithKline, 2013. 2. Beecker ER et al. Fluticasone furoate-vilanterol 100/25 mcg compared with fluticasone furoate 100 mcg in asthma: a randomized trial. JAMA In Practice. 2014 (in press). 3. Svedater H et al. Ease of use of a two-strip dry powder inhaler (DPI) to deliver fluticasone furoate/vilanterol (FFV) and FF alone in asthma. ERS 23rd Annual Congress, Barcelona, Spain, 2013. Abstract P091. 4. Woese M et al. Qualitative assessment of a two-strip dry powder inhaler (ELLIPTA™) for COPD and asthma. ICAAC, 2013. 5. Bous JA et al. Effect of once-daily fluticasone furoate/vilanterol on 24-hour pulmonary function in patients with chronic obstructive pulmonary disease: a randomized, three-way, incomplete block, crossover study. Clin Ther. 2012;34(8):1650-66.e5. 6. Riley JH et al. Delivery of unmetidolium/vilanterol using a new twin-strip device (ELLIPTA™) to COPD patients. 2013 (in press). 7. GSK's global clinical strategy for Asthma management and prevention accessible from www.gskasthma.com

For full prescribing information, please refer to the data sheet or contact GlaxoSmithKline, Gulf, P.O.Box 50199 Dubai, United Arab Emirates. To report Product Complaint/s or Adverse Event/s associated with the use of GSK product/s, please contact us via gsk.safety@gsk.com, or by calling UAE (+971 4 4037100), Kuwait (+965 2 2053233), Qatar (+974 4 44649702), Bahrain (+973 1 7377053), or Oman (+968 2 4571317).

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# ASTHMA & COPD FORUM ACF2016

The 14<sup>th</sup> Annual Conference of Saudi Thoracic Society

Saturday, 01 October 2016 | 2:00 pm - 6:00 pm  
Riyadh, Saudi Arabia

ORGANIZED BY:



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Saudi Initiative for Asthma  
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## TARGET AUDIENCE:

- Adult Pulmonologists
- Pediatric Pulmonologists
- Allergists & Immunologists
- Internists
- Primary Care Physicians
- Intensivists
- Fellows in Training
- Residents
- Pharmacists
- Researchers in the field
- Respiratory Therapists
- Technologists
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**Amr M. Ajlan, MD**  
Assistant Professor and Consultant Radiologist  
Cardiothoracic Imaging Unit,  
King Abdulaziz University Hospital,  
King Abdulaziz University,  
Jeddah, Saudi Arabia

- Assistant Professor and Consultant Radiologist, Cardiothoracic Imaging Division, Radiology Department, King Abdulaziz University Hospital, King Abdulaziz University, Jeddah, Saudi Arabia: July, 2012-Current.
- Part-time consultant cardiothoracic radiologist, International Medical Center, Jeddah, Saudi Arabia: December 2012-Current.
- Saudi Board of Radiology local program director, King Abdulaziz University Hospital, King Abdulaziz University, Jeddah, Saudi Arabia: December 2012-Current.
- Saudi Board of Radiology examination committee member: December 2012-Current.

**Fellowship:**

Cardiovascular Imaging Fellowship, 2011-2012  
Thoracic Imaging Fellowship, 2010  
American Board of Radiology, 2009  
Fellow of the Royal College of Physicians of Canada in Diagnostic Radiology, 2009

**Education:**

Medical School (M.B.; Ch.B.): Jul 2001, Faculty of Medicine & Allied Sciences, King Abdulaziz University (KAU), Jeddah, Saudi Arabia.  
Secondary School: 1996, Manarat Jeddah High School, Jeddah, Saudi Arabia.



**Nicola Alexander Hanania, M.B.B.S.**  
Associate Professor  
Medicine-Pulmonary  
Baylor College of Medicine  
Houston, TX, USA

Nicola (Nick) A. Hanania, MD, is an Associate Professor of Medicine in the Department of Medicine, Section of Pulmonary and Critical Care Medicine and Director of the Asthma Clinical Research Center at the Baylor College of Medicine in Houston, Texas. He is also Director of the Asthma Adult Clinic and Pulmonary Diagnostic services at Ben Taub General Hospital in Houston.

After receiving a Bachelor of Medicine and Surgery degree and a Masters of Science degree in internal medicine from the University of Jordan, Dr. Hanania completed residency in internal medicine at the University of Jordan, followed by a residency in internal medicine and a fellowship in pulmonary medicine at the University of Toronto. Dr. Hanania then completed a research fellowship at the Asthma Center of the Toronto Hospital, followed by a fellowship in critical care medicine at Baylor College of Medicine. He is currently certified in internal medicine, pulmonary medicine and critical care medicine.

Dr. Hanania is a fellow of the American College of Chest Physicians and the Royal College of Physicians and Surgeons of Canada, as well as member of many professional societies, including the American Thoracic Society, the American College of Physicians, and the Society of Critical Care Medicine. He is currently Chair, Airways Networks of the American College of Chest Physicians. Dr. Hanania is the recipient of the Fulbright and Jaworski Faculty Excellence Award in Teaching and Evaluation, an Outstanding Teacher Award in the Department of Medicine, and an Attending of the Year Award in the Pulmonary and Critical Care Section at Baylor College of Medicine.

Dr. Hanania is a Deputy Editor of Respiratory Medicine and Associate Editor of Therapeutic Advances in Respiratory Disease, Current Opinion Pulmonary Medicine (Asthma Section) and Pulmonary Pharmacology and Therapeutics. He is also reviewer for several peer-reviewed journals including European Respiratory Medicine, Chest, Drugs, Pulmonary Pharmacology and Therapeutics and the Am J Respir Crit Care Med. Dr. Hanania holds a Master of Science Degree in Clinical Investigations from Baylor College of Medicine and he is principal investigator for the American Lung Association Clinical Research Center at Baylor College of Medicine as well as principal investigator or co-investigator in several clinical trials in asthma and COPD and has published numerous articles, book chapters, and abstracts. Dr. Hanania has also been an invited lecturer for many local, national, and international meetings.



**David Alan Grooms, MSHS, RRT**  
Clinical Program Manager,  
Respiratory Care Services  
Sentara Healthcare  
Suffolk, Virginia, USA

David Alan Grooms, MSHS, RRT, is a Respiratory Care Practitioner and a Registered Respiratory Therapist. He's duties include the management and leading of all clinical activities for the RT department. He specializes in clinical practice development for all RT directed practices utilizing protocols and algorithms for a variety of ICU's and Med Surg units. Responsible for developing and executing all respiratory related clinical research trials.

Quality outcomes measured are used to associate successes and pitfalls of clinical implementations. Frequently serve as the system-wide lead for the respiratory care service line of all 11 Sentara facilities with regard to clinical practice development and implementation. Serve as the Chair for the system-wide Value Assessment Commodity (VAC) group.



**Abdullah M. Assiri, MD, FACP**  
Consultant, Adult Infectious Diseases Consultant  
Assistant Deputy Minister, Preventive Health  
IHR National Focal Point, Ministry of Health, Saudi Arabia  
Adjunct Associate Professor, Hubert Department of Global Health  
Emory University  
Riyadh, Saudi Arabia

**Qualifications:**

Fellowship in Adult Infectious Diseases, Dalhousie University, 2003  
Saudi Board in Internal Medicine, 2000  
MBBS Degree, King Saud University, 1994

**Professional Membership and Activities:**

Editorial board; Journal of Epidemiology and Global Health, July 2011-present  
National AIDS Committee (member), 2010-present  
National Immunization Committee, 2010-present National Tuberculosis Committee(member), 2010-present  
National Infection Control Committee (Chairman), 2010-present  
National Decontamination Services Committee (Member), 2010-present  
Scientific Committee for International Conference on Mass Gathering (Member 2010)

# FACULTY - PROFILE

BEYOND GULF INSPIRATION

# FACULTY - PROFILE

BEYOND GULF INSPIRATION



## **Emma Beddow, MB.BS, FRCS(C-Th)**

Consultant Thoracic Surgeon  
Royal Brompton & Harefield Hospitals  
London, UK

Ms Emma Beddow has special expertise in lung cancer surgery, major airway surgery and stenting, mediastinal tumours, etastectomy, benign and malignant pleural disease and pectus surgery. Ms Emma Beddow has experience in bronchoplastic resections, including distal airway reconstruction, extended resections for lung cancer, tracheal surgery, endobronchial cryotherapy, chest wall tumours, video-assisted thoracoscopic surgery and surgery for emphysema.

Ms Beddow attends European conferences to share the latest expertise on thoracic conditions and present scientific papers. Overseas doctors visit the Royal Brompton & Harefield NHS Foundation Trust to observe her and colleagues' techniques and clinical approach.

### [News, Publications and Research](#)

Miss Beddow co-authored the Oxford Handbook of Cardiothoracic Surgery, published by the Oxford University Press.



## **Jeffrey Chapman, MD**

Chief, Respiratory & Critical Care Institute  
Cleveland Clinic Abu Dhabi  
Abu Dhabi, UAE

Jeffrey Chapman, MD, is Chief of the Respiratory & Critical Care Institute, one of the five Centers of Excellence at Cleveland Clinic Abu Dhabi, and Chief of the Quality & Patient Safety Institute. In his dual role, Dr. Chapman oversees a team focused on implementing a high quality, Patients First philosophy which uses the latest technology to enhance quality, drive patient safety, and address critical care needs in the fields of respiratory and critical care medicine.



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Before moving to Abu Dhabi, he served as a Staff Physician at US-based Cleveland Clinic from 2000 to 2011. Dr. Chapman specializes in the treatment of interstitial lung disease, idiopathic pulmonary fibrosis, lymphangioleiomyomatosis, and connective tissue disease, as well as lung transplantation.

Dr. Chapman received his undergraduate degree at Northwestern University in Biomedical Engineering and obtained his medical degree from Washington University School of Medicine in St. Louis, Missouri, US. He received training in internal medicine at Columbia-Presbyterian Medical Center in New York City and in pulmonary and critical care medicine at Yale University. He is also a member of the Society of Critical Care Medicine, the American College of Chest Physicians and the American Thoracic Society.



## **Robin Condliffe, MD**

Consultant, Pulmonary Medicine  
Pulmonary Vascular Disease Unit  
University of Sheffield  
Sheffield, UK

### [Current Position:](#)

Dr Condliffe is a Consultant Respiratory Physician at the Sheffield Pulmonary Vascular Disease Unit and honorary Senior Lecturer at the University of Sheffield. The unit is the largest pulmonary hypertension centre in the UK covering a referral population of approx 15 million managing >1000 patients.

### [Professional Activities:](#)

He sits on the national clinical reference group for pulmonary hypertension and was a task force member at the recent 5th World Pulmonary Hypertension symposium.

### [Research Interests:](#)

His current research interests include survival and response to treatment in different forms of pulmonary hypertension and the investigation of novel pathways via the formation of a large biorepository. He has published in leading journals on the natural history and diagnosis of pulmonary hypertension.



## **Elliott Dasenbrook, MD**

Pulmonologists, Pulmonary &  
Critical Care Medicine Department  
Cleveland Clinic  
Cleveland, OH, USA

Dr. Dasenbrook serves as the Adult Cystic Fibrosis Program Director at the Cleveland Clinic. A board-certified Pulmonologist, Dr. Dasenbrook completed his residency at Loyola University Chicago Stritch School of Medicine and his fellowship in Pulmonary and Critical Care Medicine at the Johns Hopkins School of Medicine. While at Johns Hopkins he also received a MHS degree in clinical investigation and researched the impact of difficult to treat infections in Cystic Fibrosis.

Dr. Dasenbrook provides patient care for patients living with Cystic Fibrosis, bronchiectasis, and difficult to treat pulmonary infections. In addition to his care of patients, Dr. Dasenbrook shares his knowledge by giving CF lectures around the world, and he is frequently consulted by his colleagues to help in the care of the rapidly growing population of adults living with Cystic Fibrosis.

## FACULTY - PROFILE

Dr. Dasenbrook is involved in epidemiologic research and helps lead clinical trials investigating the impact of new medications in Cystic Fibrosis. Dr. Dasenbrook is the Associate Chair of the National CF Foundation Patient Registry Committee and has published his research in leading scientific journals.



### **Abdullah AIDalaan, MD**

Consultant Pulmonologist & Intensivist  
Director, Pulmonary Hypertension Center of Excellence  
Director, Ambulatory Care Services  
King Faisal Specialist Hospital & Research Centre  
Assistant Professor, Alfaisal University  
Riyadh, Saudi Arabia

Dr. Abdullah M. Aldalaan graduated from King Saud University in Riyadh. He received his residency training at Duke University Medical Center in North Carolina, USA; and completed his fellowship training in Pulmonary and Critical Care at University of Virginia, USA. He obtained American Board of Internal Medicine, Pulmonary Medicine and Critical Care Medicine. Since then, he has been practicing as a Pulmonologist and Intensivist at King Faisal Specialist Hospital and Research Center in Riyadh, Saudi Arabia.

He established the following at King Faisal Specialist Hospital & Research Centre:

- Lung Transplant Program, in 2003 (the first and only one among the Arab countries)
- Pulmonary Hypertension Treatment Program, the only program in the area which provides comprehensive diagnostic and therapeutic protocols for patients with pulmonary hypertension, which includes all available internationally recognized medical interventions in this field.

In addition to his clinical responsibilities, he is currently the Section Head of Pulmonary Medicine, Department of Medicine; and the Director of Ambulatory Care Services. His areas of interests are Lung Transplantation and Pulmonary Hypertension. However, he runs inpatient and outpatient Pulmonary Services at KFSH&RC which covers a wide range of pulmonary diseases.



### **Laila Al Dabal, BSc MD, MRCP, MSc**

Consultant Pulmonologist  
Modern International Hospital  
Dubai, UAE

Dr Laila graduated from Sultan Qaboos University, Muscat, Sultanate of Oman, (1996), and joined residency program in Internal Medicine, Dubai Health Authority 1996-2000. She joined the Imperial College, London, UK (2000-2002) and obtained Diploma in Internal Medicine, Diploma in Thoracic Medicine and a Master of Science degree in Respiratory Medicine (Hammersmith and Royal Brompton Hospitals). In 2003, Dr Laila completed the requirements for MRCP (UK) exam.

She then joined fellowship program in Adult Respiratory Medicine at King Faisal Specialist hospital and research centre, Riyadh, KSA (2005-2008) and was elected as the fellow of the year (2005-2006).

Dr Laila obtained the European Respiratory Society Diploma (HERMES) in 2009. She is a member of many scientific organizations and she is the UAE representative at the ERS ( 2009). Dr Laila has chaired and organised several academic activities related to HIV/pulmonary infections (in particular TB) and contributed to UAE TB management guidelines (2010) and UNAIDS/UNGASS report on HIV/AIDS in UAE ( 2010).

## FACULTY - PROFILE



### **Omar O. Dhaimat, MD, FACE**

Consultant Endocrinologist  
Dr. Sulaiman Al Habib Hospital  
Dubai Health Care City  
Dubai, UAE

- Graduated from University of Jordan in 1995. Finished Internal Medicine training in Seton hall University in USA.
- Fellowship of Endocrinology from University of Miami in Florida, USA.
- American Board Certification in Internal Medicine and in Endocrinology.
- Former Assistant Professor in Jordan University for Science and Technology .
- Former Chief of Medical staff in Sulaiman Habib Hospital in Dubai.
- Active member of various medical societies in USA, Jordan and UAE.
- Active speaker in medical meetings.



### **Hanaa Banjar, MD, FRCPC**

Associate Professor of Pediatrics and  
Pediatric Pulmonology, Alfaisal University  
Consultant Pediatric Pulmonology,  
Department of Pediatrics  
King Faisal Specialist Hospital and Research Centre  
Riyadh, Saudi Arabia

#### **Present Designation:**

Associate professor of Paediatrics, Al-Faisal University/ Harvard Partner, Riyadh, Consultant Pediatric Pulmonology, Coordinator- Cystic Fibrosis Clinic, Principal Investigator, Cystic Fibrosis Registry, King Faisal Specialist Hospital and Research Centre, Riyadh Fellow, Pulmonary Vascular Research Institute, United Kingdom Executive member of the Clinical Research Committee, King Faisal Specialist Hospital and Research Centre, Riyadh

#### **Qualification/s , Place & Date:**

- 1983, M.B. and (Ch. B.) Bachelor Degree in Medicine and Surgery, King Abdul-Aziz University, College of Medicine and Allied Sciences, Jeddah, Saudi Arabia.
- 1989, The Canadian Board of Paediatrics of The Royal College of Physician and Surgeon of Canada (FRCPC), Ottawa University, Ottawa, Canada ( License number 372217).
- 1992, Pediatric Pulmonology, McGill University, Montreal, Canada.

#### **Special Certificates:**

- Maintenance of the Canadian certification (FRCPC) with the Royal College of physician and surgeon of Canada since the year 2000 – present.
- The Physician Recognition Award of The American Medical Association, USA, 1990.
- An honour Degree for The Bachelor Degree in Medicine and Surgery, M.B. and (Ch. B.), king Abdul Aziz University, college of medicine, 1983.

# FACULTY - PROFILE

BEYOND GULF INSPIRATION



## Mark Elliott, MD

Treasurer, European Respiratory Society  
Consultant Physician,  
St. James's University Hospital, Leeds  
UK

Mark Elliott is a Consultant Physician at St James's University Hospital, Leeds. He has been responsible for developing the home sleep and assisted ventilation service, for acute in hospital NIV and weaning of patients with prolonged ventilator dependence. Research interests are in acute and chronic non invasive ventilation and sleep related abnormalities of breathing.



## Prof. Dean A. Fennell, PhD, FRCP

Chair of Thoracic Medical Oncology  
President, International Mesothelioma Interest Group  
Cancer Research UK Centre, Leicester  
University of Leicester & University Hospitals of Leicester  
Leicester, UK

### Education

- BSc (1st Class) in Pharmacology, University College London
- MBBS, University College London
- MRCP (London)
- Ph.D. (London)
- CCST specialist accreditation in Medical Oncology
- FRCP
- FRCPI

### Research Interests

Professor Fennell's clinical specialisation is in thoracic medical oncology and early clinical trials, particularly mesothelioma, with a particular interest in therapeutic targeting of the core apoptosis pathways. Prof. Fennell leads a Cancer Research UK funded group with a laboratory focusing on apoptosis, drug resistance, and signature-based therapeutics using the connectivity map for accelerated, targeted drug discovery. He is currently leading UK and international clinical trials of novel targeted therapies in Lung Cancer and Mesothelioma.



new diagnostic design

ndd Medical Technologies, the market leader in spirometry, provides equipment for lung function testing. The ndd products offer robust, easy to use portable instruments to measure Spirometry, DLCO, Lung Volumes, and Lung Clearance Index (LCI). Their innovative ultrasonic transit time and Molar Mass measurement guarantees unmatched precision. All products are calibration free; neither require maintenance nor warm-up time.



## FACULTY - PROFILE

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## FACULTY - PROFILE

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### **Mohamed Al Ghobain, MD, FCCP**

Assistant Professor of Pulmonary Medicine,  
College of Medicine, King Saud Bin Abdulaziz  
University for Health Sciences,  
King Abdulaziz Medical City  
Riyadh, Saudi Arabia

Dr. Al Ghobain is a Vice President of Saudi Arabian Anti-Doping Committee ( SAADC ), Consultant Pulmonologist, King Abdulaziz Medical City, NGH, Assistant Professor, College of Medicine, KSAU-HS, ACCP international regent for Saudi Arabia, Associate editor, Annals of Thoracic Medicine.

Field of Interest : Research, Medical Education, Epidemiology, asthma and COPD.



### **David Gozal, MD, MBA**

The Herbert T. Abelson Professor of Pediatrics,  
Neuroscience and Neurobiology  
Department of Pediatrics  
Pritzker Scholar, Member, The Grossman Institute for Neuroscience,  
Quantitative Biology and Neuroscience  
Committee on Neuroscience and Neurobiology  
The University of Chicago, President, American Thoracic Society 2016-2017  
Chicago, IL, USA

David Gozal, MD, was installed as president-elect. He will serve as ATS president from 2016 to 2017. Dr. Gozal is the Herbert T. Abelson Professor in the Department of Pediatrics at the University of Chicago. He chairs the Finance Committee, serves as a non-voting member of the Council of Chapter Representatives, and is a member of all committees except the Nominating Committee.

An ATS Member since 1991, Dr. Gozal was honored as a 2002 Amberson Lecturer and delivered the presentation "Neurobehavioral Deficits of Sleep-Disordered Breathing: Evidence For Developmentally-Regulated Brain Injury,

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Inflammation and Repair." He's a member of the Assemblies of Sleep Respiratory & Neurobiology and Pediatrics and had served on the ATS Board of Directors as chair of the SRN (then RNS) from May 2001 to June 2003, and also served in the Planning and Evaluation and Health Policy Committees, and on the SRN Assembly Planning Committee. He also served as an associate editor of the American Journal of Respiratory and Critical Care Medicine.

Before joining the University of Chicago in 2009, Dr. Gozal established the Division of Pediatric Sleep Medicine and the Sleep Medicine Fellowship Program at the University of Louisville, and had also taught at Tulane University, University of California Los Angeles, and University of Southern California. Early in his career, Dr. Gozal helped to develop rural health care networks in Cameroon, West Africa, and was honored as a "Knight of the Order of Merit" of Cameroon.



### **Prof. Qutayba Hamid, MD, PhD, FRS**

Professor of Medicine  
University of Sharjah  
Sharjah, UAE

Dr Qutayba Hamid is a Professor of Medicine at McGill University . He is the Director of the Meakins-Christie Laboratories, the Associate Director of McGill University Health Centre Research Institute. He received his MD from Mosul University, Iraq, his PhD from the University of London. UK, and trained at the University of London in the UK He has been a professor at McGill University and the Meakins-Christie Laboratories since 1993.

Dr. Hamid is recognized internationally for his work in research on asthma, COPD, and inflammation. Dr. Hamid has published over 450 scientific articles in prestigious international journals and has contributed more than 100 chapters and review articles He is the editor of 2 textbooks for Respiratory Cell and Molecular Biology and Respiratory Physiology He has been a visiting professor worldwide at Universities in Japan , USA, Europe, and Middle East.

He is currently the Co-Editor of the Journal of Clinical and Experimental Allergy He was the Associate Editor of the Journal of Allergy and Clinical Immunology for 10 years. He is a member of many scientific and professional organizations including Royal College of Physicians, London. UK , Royal College of Physicians, Canada, American Thoracic Society, Canadian Society of Allergy and Clinical Immunology, American Academy of Allergy, Asthma and Immunology, and the Royal College of Pathologists.



### **Suad Hannawi, MD**

Consultant & Head of Rheumatology  
Ministry of Health (MOH)  
Dubai, UAE

Dr. Suad Hannawi is a Consultant of Rheumatology and the head of the rheumatology service at the Ministry of Health (MOH) of UAE. After receiving her BSc, and the MD degree, Dr. Hannawi obtained the fellowship of royal college of physicians of Edinburgh, and completed her training of rheumatology in Australia. She also obtained her PHD with the thesis of "early rheumatoid arthritis, inflammation, and atherosclerotic disease" from University of Queensland, Australia.

Her interest in the public health motivated her to proceed with getting a Master of International Public Health from university of Queensland, Australia, with a Dean's Commendation for High Achievement. Currently, she is working on obtaining her second master degree in the musculoskeletal ultrasound, and has been chosen as the main host and organiser for the European Society of Rheumatology Ultrasound courses that hold in UAE.

# FACULTY - PROFILE

Dr. Hannawi reviews medical and scientific papers for The Journal of Rheumatology, Arthritis Research and Therapy, Journal of Clinical Rheumatology, Seminars in Arthritis and Rheumatism, and Arthritis Care and Research.

Dr. Hannawi is focused on the clinical and epidemiological aspects of research and has a strong interest in clinical studies within the areas of rheumatology and general medicine. She is interested in health system organization and management, and is involved in clinical education for medical students, junior doctors and junior researchers.

Dr. Hannawi has published in numerous journals and has presented at different international scientific conferences. Currently she is a deputy chair of the central research ethic committee and the research committee of the ministry of health. Dr. Hannawi has been awarded as best young investigator in Australia PA research week; and lately was awarded Best Researcher in the Ministry of Health of UAE in 2015.



## **Abdulaziz Al-Hashemi, MD, FCCP, FRCPC, ABIM(sleep)**

Senior Pulmonary and Sleep Consultant  
Assist. Prof. of Medicine at Weill Cornell Medical College  
Department of Internal Medicine, Pulmonary Division  
Director of Sleep Laboratory  
Hamad General Hospital  
Doha, Qatar

### Summary of Qualifications:

- American Board of Sleep Medicine (2009)
- Fellow of the American College of Chest Physician (2007)
- Canadian Fellowship in Sleep Medicine (2004-2006)
- Fellowship of the Royal College of Physicians and Surgeons of Canada in Respiriology (2004)
- American Board of Respiriology (2004)
- Fellowship of the Royal College of Physicians and Surgeons of Canada (FRCPC) in Internal Medicine (2003)
- American Board of Internal Medicine (2002)
- Arab Board of medical specialization I (1997)

# FACULTY - PROFILE



## **Fahad Al Hameed, MD, FRCPC**

Consultant, Pulmonary & Critical Care Medicine  
Chairman, Intensive Care Department  
Director, Ambulatory Care Services  
Assistant Professor of Medicine & Critical Care  
King Saud Bin Abdulaziz University for Health Sciences (KSAU-HS)  
King Abdulaziz Medical City, NG  
Chairman, Saudi Association for Venous Thrombo-Embolism ( SAVTE )  
Jeddah, Saudi Arabia



## **Mohammed Al-Houqani, MBBS, FRCPC, DABIM**

Assistant Professor, Consultant of Respiratory & Sleep Medicine  
Assistant Dean for Education & Academic Affairs  
College of Medicine & Health Sciences  
UAE University  
Al Ain, UAE

Dr. Al Houqani has graduated from the Faculty of Medicine and Health Sciences at UAE University. He then pursued his postgraduate training in Internal Medicine, Respiriology and Sleep Medicine at University of Toronto, Canada. he is certified by the American Board of Internal Medicine and the Royal College of Physician of Canada. He is currently working the Faculty of Medicine and Health Sciences, UAE University as an Assistant Professor and Consultant in Internal Medicine, Respiriology and Sleep Medicine. he has research interest in the epidemiology of Respiriology and Sleep disorders.



## **James Hull, MD**

Consultant Respiratory Physician  
Royal Brompton & Harefield Hospitals  
London, UK

Dr. Hull's areas of expertise include asthma, cough, shortness of breath, reasons for exercise limitation and unexplained hypoxaemia. He introduced a new test at the Trust, continuous laryngoscopy during exercise, for the diagnosis of upper airway problems during exercise. He is the clinical lead for the unexplained breathlessness service. Dr. James Hull is Consultant Respiratory Physician with an interest in severe asthma and exercise physiology. Dr. Hull completed an undergraduate degree in exercise physiology and graduated from St George's Hospital Medical School in 2000. In 2010, he completed his PhD in Vascular Physiology in Chronic Lung Disease. He completed the National Institute for Health Research Clinical Lectureship (CLs) during 2011-12.

### News, Publications and Research

- An Official American Thoracic Society Clinical Practice Guideline: Exercise-induced Bronchoconstriction. Jonathan P. Parsons, Teal S. Hallstrand, John G. Mastronarde, David A. Kaminsky, Kenneth W. Rundell, James H. Hull, William W. Storms, John M. Weiler, Fern M. Cheek, Kevin C. Wilson, Sandra D. Anderson on behalf of the American Thoracic Society Subcommittee on Exercise-induced Bronchoconstriction. American Journal of Respiratory and Critical Care Medicine, Vol. 187, No. 9 (2013), pp. 1016-1027.
- Managing respiratory problems in athletes. Hull JH, Ansley L, Robson-Ansley P, Parsons JP. Clinical Medicine August 2012
- Misdiagnosis of Exercise-induced bronchoconstriction in professional soccer players. Ansley L, Kippelen P, Dickinson J, Hull JH. Allergy. 2012 Mar;67(3):390-5.
- Exercise induced Bronchoconstriction in athletes - should we screen?Hull JH, Ansley L, Garrod R, Dickinson JW. Med Sci Sports Exerc. 2007 Dec;39(12):2117-24.

## FACULTY - PROFILE

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### **Majdy M. Idrees, MD, FRCPC, FCCP, FPVRI, FRCP Edin (Hon)**

Consultant Pulmonologist  
President, Saudi Association for Pulmonary Hypertension  
Co-Chair, Pulmonary Hypertension Chapter for Eastern Mediterranean Region, PVRI  
Prince Sultan Military Medical City  
Riyadh, Saudi Arabia

Dr. Idrees is the former head of Pulmonary Division at Riyadh Armed Forces Hospital and the head of the pulmonary vascular disease unit. He is also the head of the Saudi Advisory Group for Pulmonary Hypertension. He received his M.B. and B.S. degree from King Saud University in Riyadh, Saudi Arabia, and his post graduate training in both Internal Medicine and Pulmonary Medicine from the University of British Columbia, Canada from 1992 -1997. He had his American Board degree in Pulmonary Medicine in 1996, and the Canadian Board in Pulmonary Medicine in 1997 His major area of research is related to pulmonary hypertension and pulmonary vascular disease, and also to bronchial asthma. He is a manuscript reviewer and co-editors of many medical journals. Dr Idrees has been invited as a guest speaker in many national and international meetings and gave more than 200 lectures in the different field of pulmonary Medicine.



### **Ahmed Aljabbary, MD, FRCPC**

Chairman, Saudi Intensive Care Association (SICA)  
Head, Neuro-Critical Care Unit  
National Guard Health Affairs  
Intensive Care Department  
Riyadh, Saudi Arabia



### **Ibrahim Janahi, MD, FAAP, FCCP, FRCPC**

Associate Professor of Pediatrics,  
Weill-Cornell Medical College-Qatar  
Senior Consultant and Head of Pediatric  
Pulmonary Section, Hamad Medical Corporation  
Director, Pediatric Residency Training Program  
President, Gulf Society of Pediatric Respiriology  
Doha, Qatar

Prof. Ibrahim Janahi has a long and esteemed medical, research and teaching career both here in Qatar, as well as internationally. He earned his medical degree from King Faisal University (now Dammam University), in 1992 and went on to complete his General Internship and Arab Board Residency in Pediatrics at HMC in 1993 and 1994 respectively. Thereafter, he travelled to the US to complete the American Board Pediatric Residency in 1997 at the University of Illinois at Peoria/Children's Hospital of Illinois, as well a Fellowship in Pediatric Pulmonology at Baylor College of Medicine/Texas Children's Hospital which he completed in 2000. During his time in the US, Prof. Janahi distinguished himself in teaching and in research, winning top awards in both categories.

Upon returning to Qatar in 2000, Prof. Janahi has held the position of Senior Consultant & Division Chief of Pediatric Pulmonology at HMC. In that time, he has served as a leader on a number of key Boards and Committees. Additionally, since 2006, Prof. Janahi has been active in teaching clinical pediatrics at Weill Cornell Medical College here in Doha, achieving the rank of Professor in 2014 and being recognized for his excellence in teaching with awards both from HMC and Weill Cornell.

Currently, Prof. Janahi is the Executive Director of Medical Research at HMC as well as the Program Director for the Arab Board Residency in Pediatrics at HMC. Additionally, he is the Designated Institutional Officer for Sidra Medical and Research Center, and he Chairs the National Permanent Licensing Committee at the Supreme Council of Health for the State of Qatar.

He is an accomplished researcher in the field of pediatric lung disorders, investigating the genotype/phenotype relationship in Primary Ciliary Dyskinesia; personalized medicine targeting Cystic Fibrosis Transmembrane Regulator genes; and the genomic-proteomic-metabolomic relationship between asthma and obesity.

He is a member in good standing of many professional associations, including the American Academy of Pediatrics, serving on the Advisory Board of the International Congress on Pediatric Pulmonology, and as a Founding Member of the Arab Pediatric Pulmonology Association, just to name a few. Prof. Janahi's career is remarkable for his outstanding service to his patients and students, and to the State of Qatar."



### **Prof. Dr. med. Jürgen Behr**

Head, Department of Pneumology  
Head, Department of Internal Medicine V  
Ludwig Maximilian University and Hospital of Munich  
Seevetal, Germany

Prof. Dr. Jürgen Behr has taken by 1 January 2013 the Department of Internal Medicine / Pulmonology at the Ludwig Maximilian University of Munich and head of the Department of Internal Medicine V at the Hospital of LMU. At the same time created the first Department of Pneumology in Bavaria. The acting head of the newly founded Medical Clinic V with the Pneumology was previously in the hands of Prof. Dr. Burkhard Goeke, Medical Director and Director of the Medical Clinic II.



## FACULTY - PROFILE

The new professor comes from traditional BG University Hospital Bergmannsheil clinical center at the Ruhr University in Bochum. Since December 2010, he headed the Department of Pneumology, Allergology, sleep and respiratory medicine and was Professor of Pulmonology at the University of Bochum.

Connected with the takeover of the Department of Pneumology at the Ludwig-Maximilians-Universität, the positions as Chief Physician Pulmonology the Asklepios Pulmonary Hospital Munich-Gauting and as co-director of the Comprehensive Pneumology Center (CPC). The CPC is a research center for lung diseases in which the Helmholtz Zentrum München, the LMU which LMU Clinic and the Asklepios Specialist Clinics Gauting pooling their expertise.

The LMU is for the native Bamberger familiar home. Here he studied and graduated. In the following years he received Board Certification in Internal Medicine, Pulmonary and Bronchialkunde and Cardiology and acquired the additional title for the subject Allergology. In 1996 he qualified as a Professor and earned the right to teach in Internal Medicine at the LMU. Am Klinikum he built up his career: He was amongst others as a Senior Physician at the interdisciplinary ICU and receiving station (2001-2007) active and instrumental in building the lung transplant program at Campus Grosshadern. In 2001 he took over the management of the center of gravity Pulmonology Clinic I am Campus Grosshadern. From there it nine years later went to Bochum and now returns to the LMU.



### **Feisal A. Al Kassimi, MD, FRCP**

Consultant Pulmonologist  
Professor of Medicine, College of Medicine  
King Saud University &  
King Khalid University Hospital  
Riyadh, Saudi Arabia

Published papers dealt mainly with Epidemiology of Tuberculosis and airways disease. He chaired the first Saudi National Guidelines for the Diagnosis and Management of COPD in 2005 and 2008 under the auspices of the Saudi Thoracic Society.



### **Noor Al Khathlan, BSc, MSc, PhD**

Assistant Professor of Pediatric Pulmonary  
Function Testing  
Director of Clinical Education, Respiratory  
Care Department University of Dammam  
Dammam, Saudi Arabia

Dr. Noor Al-Khathlan is an assistant professor of Pediatric Pulmonary Function Testing at Dammam University. She is the Director of Clinical Education at Respiratory Care Department, University of Dammam and the Head of Pulmonary Function Laboratories at King Fahad University Hospital. She received her MSc from Cardiff University, UK in HealthCare Sciences. Her PhD was obtained from University of Leicester, UK where she is trained and worked as a Research Scientist in Pediatric Pulmonary Function at Respiratory Investigation Centre, Leicester Royal Infirmary.

Dr. Noor participated as a speaker in different national and international conferences and won a prize from the European Respiratory Society (ERS) in 2012 for the best abstract in Cystic Fibrosis. She is a member of many scientific and professional organizations including the American Thoracic Society (ATS), the European Respiratory Society (ERS) and the Saudi Society of Respiratory Care (SSRC).

## FACULTY - PROFILE



### **Nizar Kherallah, MD, FRCP, FCCP**

Assistant Clinical Professor of Pediatric  
at Weill Cornell Medical College  
Pediatric Pulmonology Senior Attending Physician  
Sidra Medical and Research Center  
Doha, Qatar

Dr. Nizar Kherallah is the section-head of pediatric pulmonology at Sheikh Khalifa Medical City in Abu Dhabi. Since he joined SKMC in 2006, he managed to build a busy tertiary level Pediatric Pulmonology Service with special interest in Pediatric Bronchology. Dr. Kherallah had worked at the Medical College of Ohio as a Consultant in Pediatric Pulmonology for about 10 years prior to joining SKMC.

He finished his fellowship training in Pediatric Pulmonology at Children's National Medical Center/George Washington University in 1997 and his Pediatric residency at Michigan State University in 1994.

He is double boarded in Pediatric and Pediatric Pulmonology by the American Board of Pediatrics. Dr. Kherallah has participated in many local, regional and international meetings and conferences as a speaker as well as an organizer.



### **Martin Kolb, MD, PhD**

Director, Division of Respiratory  
Research Director, Firestone Institute for Respiratory Health  
Professor, Department of Medicine,  
Pathology & Molecular Medicine  
McMaster University  
Hamilton, ON, Canada

#### **Education and Professional Standing**

- M.D., University of Würzburg, Germany, 1991
- Residency program, Anatomical Pathology, University Erlangen/Nürnberg
- Residency program, General Internal and Respiratory Medicine, University of Würzburg, Germany, 1993
- Postdoctoral research Fellowship in Pulmonary Fibrosis with Dr. Jack Gauldie, McMaster University, 1999
- Habilitation for Internal Medicine (PhD equivalent), Germany, 2001
- Assistant Professor, Department of Pathology, McMaster, 2003
- Department of Medicine and the Firestone Institute for Respiratory Health, 2004
- Research Director, Firestone Institute for Respiratory Health, 2009
- Director, Division of Respiratory, Department of Medicine, McMaster University 2013

#### **Clinical Activities**

Dr. Kolb looks after several hundred patients with Interstitial Lung Disease in his specialty clinic and also practices in General Respiratory. He is medical staff at St. Joseph's Healthcare Hamilton for Respiratory and General Internal Medicine.

#### **Other Activities**

Dr. Kolb is Deputy Editor for Respirology, the official journal of the Asian Pacific Society of Respiratory, Associate Editor for the European Respiratory Review and Academic Editor for PLoS One. He is on the Editorial Boards of the American Journal of Respiratory and Critical Care Medicine and European Respiratory Journal, which are the number 1 and 3 in journals in Respiratory Medicine. Dr. Kolb is in the Executive Committee for the Respiratory Cell and Molecular Biology Assembly of the American Thoracic Society and Chair of the Lung Injury and Repair Group of the European Respiratory Society. He is also Chair of the International Colloquium on Lung and Airway Fibrosis.

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### **Prof. Tom Kotsimbos, MD, FRACP**

Professor of Respiratory Medicine  
Monash University  
Melbourne, Victoria, Australia

Prof. Tom Kotsimbos has successfully combined multi-disciplinary specialist training in Clinical Medicine (Respiratory and Infectious Disease) with a strong commitment to basic science (MD, NHMRC funding, PhD trainees) thereby placing him in an excellent position to initiate, enable and evaluate translational research opportunities in medicine. In addition he continues to remain very active in outpatient and inpatient clinical medicine and teaching, and is actively engaged in national and international clinical trials of novel therapies and interventions thereby further facilitating innovation and critical evaluation in medical management.

He has over 135 international peer reviewed publications that span the clinical breadth and scientific depth of Respiratory medicine.



### **Hani Lababidi, MD, FCCP, FACP**

Director, CRESENT, Academic & Training Affairs  
Consultant, Pulmonary & Critical Care Medicine  
Department, Pulmonary & Critical Care Medicine  
King Fahad Medical City,  
Riyadh, Saudi Arabia

Dr. Hani Lababidi received his MD from American University of Beirut and did his Internal Medicine residency at Johns Hopkins University, Baltimore, USA.

He also completed a Pulmonary & Critical Care Fellowship at New York Medical College, New York, USA. He has been the Assistant Professor of Medicine, Cornell University, New York, USA and Chief of Staff, Makassed General Hospital, Beirut, Lebanon. His research interests include asthma, end of life care and MDR infections in ICU.

He is a member of the American Medical Association, the American Thoracic Society, the American College of Chest Physicians, the American College of Physicians, the Saudi Thoracic Society and the Critical Care Society.



### **Prof. Atul Malhotra, MD**

President, American Thoracic Society  
Ken Moser Professor of Medicine  
Chief, Division Pulmonary and Critical Care Medicine  
Director of Sleep Medicine  
University of California, San Diego (UCSD)  
San Diego, CA, USA

Atul Malhotra, MD, is a board-certified Pulmonologist, Intensivist and Chief of Pulmonary, Critical Care and Sleep Medicine. He is active clinically in Pulmonary, Critical Care and Sleep Medicine. In the sleep clinic, he provides a full spectrum of diagnostic and therapeutic services to patients with sleep-related disorders, including sleep apnea, insomnia, restless leg syndrome, narcolepsy and sleep disorders associated with medical or psychiatric conditions. He has a special interest in the treatment of sleep apnea.

Dr. Malhotra is the president of the American Thoracic Society. He has taught and presented his research on sleep-related disorders locally, regionally, nationally and internationally. He has published more than 200 original manuscripts in leading journals. He is a principal and co-investigator on numerous projects relating to sleep apnea and serves as an ad hoc reviewer for many leading journals including the New England Journal of Medicine, Mayo Clinic Proceedings, Sleep and the Journal of American Medical Association. As a professor of medicine, Dr. Malhotra is involved in training medical students, residents and fellows at UC San Diego School of Medicine.

Before joining UC San Diego Health System, Dr. Malhotra practiced Pulmonary, Critical Care and Sleep Medicine at Massachusetts General Hospital, Beth Israel Deaconess Medical Center and Brigham and Women's Hospital. He also served as attending Physician in Intensive Care at King Faisal Hospital in Rwanda. He was Associate Professor at Harvard Medical School and Medical Director of the Brigham and Women's Hospital Sleep Disorders Research Program. Dr. Malhotra completed his fellowship training in Pulmonary and Critical Care Medicine at Harvard Medical School and a residency in Internal Medicine at the Mayo Clinic. He completed an internship at St. Thomas Medical Center in Akron, OH and received his medical degree from the University of Alberta in Canada. Dr. Malhotra is triple board-certified in Pulmonary disease, Sleep Medicine and Critical Care Medicine.



### **Prof. Neil R. MacIntyre Jr, MD**

Professor of Medicine, Duke University Medical Center  
Chief of Clinical Services, Division of Pulmonary and Critical Care Medicine  
Medical Director of Respiratory Care Services,  
Pulmonary Function Laboratory, and Pulmonary Rehabilitation Program  
Duke University Medical Center  
Durham, NC, USA

Neil R MacIntyre Jr, MD, is Medical Director of Respiratory Care Services, the Pulmonary Function Laboratory, and the Pulmonary Rehabilitation Program at Duke University Medical Center, as well as Professor of Medicine and Chief of Clinical Services within the Division of Pulmonary and Critical Care Medicine at Duke University Medical Center in Durham, NC. He earned his BS from the University of San Francisco, CA, and his MD from Cornell University Medical College in New York, NY. He also completed both his internship and residencies in medicine at New York Hospital at Cornell University Medical Center. He completed a Fellowship in Pulmonary Diseases at the University of California, San Francisco. He is a fellow of the American College of Chest Physicians, the American Association for Respiratory Care, and the American Association of Cardiovascular and Pulmonary Rehabilitation. In addition, he is Chairman of the Medical Education and Research Committee of the American Lung Association. He is a member of the editorial boards for Respiratory Care, Critical Care Medicine, Journal of Cardiopulmonary Rehabilitation, and Chest. He has authored an extensive list of journal manuscripts, book chapters, and books.

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**Prof. Azzam A. Maghazachi, MD**

President and Director,  
D&A Immunology and Oncology International,  
San Diego/Montreal/Oslo  
Professor, College of Medicine,  
Sharjah University, UAE

Expert in Cancer Immunotherapy field and has developed clinical trials using natural killer cells to treat malignant melanomas, colorectal cancer, kidney cancer and lung cancer.

Cancer, Oncology , Multiple sclerosis, Autoimmune diseases , Immunology, Hematology

Positions held:

- 2015-Present: President and Director, D&A Immunology and Oncology International, San Diego/Montreal/Oslo
- 2016-Present: Visiting Professor: College of Medicine, Sharjah University, UAE
- 2007-2015: Professor, Department of Physiology, University of Oslo
- 2004-2007: Executive Director of Research, Bio-Quant, Inc., San Diego, CA, USA
- 1997-2004: Senior Scientist, Department of Anatomy, University of Oslo
- 1995-1997: Visiting Scientist, Laboratory of Immunobiology, University of Oslo,
- 1991-1995: Adjunct Professor, Laurentian University, Canada
- Associate Professor, Department of Medicine, Faculty of Medicine, University of Ottawa, Canada
- 1988-1991: Project Leader, National Research Council of Canada, Montreal, Canada
- 1986-1988: Assistant Professor, Department of Surgery, University of Pittsburgh, USA
- Editor: Frontiers in Immunology Special Issue: Immunomodulatory effects of drugs for treatment of multiple sclerosis and other immune-related diseases
- Editor-in-chief: Advances in Neuroscience Research
- Member of editorial board: Toxins
- Member of editorial board: British Journal of Medicine and Medical Research
- Member of editorial board: American Journal of Molecular Biology
- Member of editorial board: World Journal of Immunology
- Member of editorial board: World Journal of Experimental Medicine
- Member of editorial board: World Journal of Biological Chemistry
- Member of editorial board: ImmunoTargets and Therapy
- Associate editor: International Journal of Medical and Clinical Research
- Member of editorial board: Open Journal of Immunology
- Editor: MOJ Immunology
- Associate editor-in-chief: Frontiers in Clinical Medicine
- Editorial board member: Trends in Molecular Biology
- Member of editorial board: Journal of Biological Medicine



**Bassam Mahboub, MD, FRCPC**

Consultant Pulmonary Medicine  
Asst. Prof., University of Sharjah  
Head of Allergy and Respiratory Department, Dubai Hospital  
Chair, Emirates Allergy & Respiratory Society  
Dubai, UAE

**Qualifications:**

- M.B.B S., U A.E. University: Al-Ain. U.A.E. August 1993 (with a graduating grade of B)
- American Board of Internal Medicine certified 2001
- FRCPC(C) Internal Medicine 2003
- Royal college Allergy Clinical Immunology 2003
- American Board Allergy Clinical Immunology 2003

**Memberships:**

- Assistant Prof Of Medicine and Chest Disease University of Sharjah, Faculty of Medicine-UAE
- Clinical associate and research fellow-ASTHMA AND AIRWAY CENTRE-university of TORONTO-Canada (2003-2005)  
Royal College of Physician and Surgeon of Canada
- Canadian Society of Allergy Immunology
- American College of Physicians
- American college and Academy of Allergy Immunology
- American College of Chest Physicians

**Positions:**

- Head Of Respiratory And Allergy Unit-Rashid Hospital-Dha-2008 till date
- Vice Head of Emirates Allergy and Respiratory Society
- Faculty Member of Global Alliance of Smoking Cessation, 2007-2009



**Prof. Atul C. Mehta, MD, FACP, FCCP**

Professor of Medicine, Lerner College of Medicine  
Buoncore Family Endowed Chair in Lung Transplantation  
Staff, Department of Pulmonary Medicine, Respiratory Institute  
Cleveland Clinic, Cleveland, Ohio, USA  
Senior Editor, Journal of Bronchology and Interventional Pulmonology  
Cleveland, OH, USA

Atul C. Mehta, M.B., B.S., is Vice-Chairman of the Department of Pulmonary and Critical Care Medicine, Head of the Section of Bronchology and acting Medical Director of the Lung Transplant Team at Cleveland Clinic. Dr. Mehta's specialty interests are the treatment of lung cancer, diagnostic and therapeutic bronchoscopy, lung transplantation, interstitial lung diseases and pulmonary hypertension.

He is board-certified in internal medicine, pulmonary disease and critical care medicine. Dr. Mehta's research interests are therapeutic bronchoscopy, lung transplantation and idiopathic pulmonary fibrosis. He is named in the 2000-2001 Top Doctors in America; 1999-2000 edition of Best Doctors in America; Who's Who in Medicine and Healthcare, 1997; Best Doctors in America- Midwest Region, 1996-1997; and International Who's Who, 1996-1997.

In 1993 he was awarded the Distinguished Physicians of the Year by the Indian Physicians of Northern Ohio and in 1992, the Cleveland Clinic's Bruce Hubbard Steward Award for his ability to combine sensitivity and compassion with knowledge and skill in the practice of medicine.



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Founded in 1989 in Cambridge, Mass., Vertex today has research and development sites and commercial offices in the United States, Europe, Canada and Australia. For six years in a row, Science magazine has named Vertex one of its Top Employers in the life sciences. For additional information and the latest updates from the company, please visit [www.vrtx.com](http://www.vrtx.com).

## FACULTY - PROFILE

Dr. Mehta was the founder and president of the American Association for Bronchology. He is a Fellow of the American College of Chest Physicians, the American College of Physicians, and the American Society for Laser Medicine & Surgery. He also is an active member of the American Thoracic Society, International Bronchoesophagological Society, International Society for Heart & Lung Transplantation and World Association for Bronchology.



### **Prof. Mohamed S. Al Moamary, ABIM, FRCP(Edin), MBA-LS, FCCP**

Executive Director, Medical Services, KAMC-Riyadh, Saudi Arabia  
Vice President, Development and Quality Management, KSAU-HS, Saudi Arabia  
Professor & Consultant, Pulmonary Medicine, KAMC-Riyadh  
Chairman, Saudi Initiative for Asthma  
Editor-in-Chief, Annals of Thoracic Medicine  
Riyadh, Saudi Arabia

Mohamed S. Al Moamary is the Assistant Vice President, Educational Affairs, King Saud bin Abdulaziz University for Health Sciences. He is an Associate Professor, Pulmonary Medicine, College of Medicine, KSAU-HS. He is practicing as a consultant in Pulmonary Medicine at King Abdulaziz Medical City-Riyadh, Saudi Arabia.

He is the Editor-in-Chief of the Annals of Thoracic Medicine. He chaired many scientific committees and members of counsels. He introduced patient safety in the college of Medicine curriculum.

He has contributed in guidelines with the Saudi Thoracic Society and the World Health Organization. Dr. Al Moamary is the primary author of the Saudi Initiative for Asthma and the framework for medical intern's competencies.



### **Parameswaran Nair, MD, PhD, FRCP, FRCPC**

Professor of Medicine, McMaster University  
Staff Respirologist, St Joseph's Healthcare  
Hamilton, Ontario, Canada

Dr. Nair is Professor of Medicine in the Division of Respirology at McMaster University, an Adjunct Professor of Medicine at McGill University, and a Staff Respirologist at the Firestone Institute for Respiratory Health at St. Joseph's Healthcare Hamilton where he looks after patients with complex airway diseases, severe asthma and eosinophilic lung disorders.

These unique multi-disciplinary specialized clinics provide these patients access to biologics, molecular microbiology and bronchial thermoplasty.

His laboratory, funded by federal and provincial agencies, the Canada Research Chair program, AllerGen National Centre of Excellence, and industry partners, characterizes the types of bronchitis in airway diseases using biomarkers in sputum, identifies mechanisms of persistent bronchitis, and explores novel targeted therapies of bronchitis using small molecules and biologics.

## FACULTY - PROFILE



### **Imran Y. Nizami, MD**

Consultant and Section Head  
Lung Transplant Section  
Organ Transplant Center  
King Faisal Hospital and Research Centre  
Riyadh, Saudi Arabia

Dr. Imran Nizami, MD, graduated from Dow Medical College in Karachi Pakistan in 1987. Residency training in internal medicine at The Wayne State University in Detroit Michigan. Fellowship in pulmonary medicine at The Wayne State University Detroit Michigan. Fellowship in lung transplant and critical care medicine at The Baylor College of medicine in Houston Texas.

American Board certified in internal medicine, pulmonary and critical care medicine. Worked as the assistant professor of medicine at The Baylor college of medicine from 1997-2001. Chief of lung transplant program at The NazihZuhdi Transplant Institute in Oklahoma from 2001-2006. Worked as chairman of medicine at The National Guard Hospital Al Hassa from 2006-2008. Currently working as the section head of the lung transplant section at The King Faisal Specialist Hospital and Research Center Riyadh Saudi Arabia.



### **Ghazi Alotaibi, PhD, RRT**

Associate Professor of Respiratory Care  
Vice President for Academic Affairs  
University of Dammam-Saudi Arabia  
President, Saudi Society for Respiratory Care  
Dammam, Saudi Arabia

Dr. Ghazi got his PhD in Health Sciences majoring in Respiratory Care from University of Medicine and Dentistry of New Jersey in USA, with special interest in mechanical ventilation. He also holds a post graduate diploma in medical education from University of Dundee in UK in 2009.



### **Hessa Alotaibi, BsRC, RPFT, MPH**

Respiratory Therapist, Senior of Pulmonary Function Lab,  
KAMC-Riyadh, Saudi Arabia  
Clinical Instructor, Respiratory Program  
KSAU-HS, Saudi Arabia  
Riyadh, Saudi Arabia

Hessa Ghazi Alotaibi, have bachelor degree in Respiratory Care graduated from Kansas University, KS, USA. 2007. got my master degree in public health from King Saud University of Health Sciences. Working as a Senior Respiratory Therapist in Pulmonary Function lab, KAMC-Riyadh, Saudi Arabia. Also as Clinical instructor in Respiratory program KSAU-HS, Saudi Arabia. participate in teaching for medical students in King Saud University.

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# FACULTY - PROFILE



**Prof. Louis-Philippe Boulet, MD, FCCP, FRCPC**

Professor of the Knowledge Transfer, Training and Prevention, Respiratory and Cardiovascular Health  
 Institute of Cardiology and Pulmonology  
 Laval University  
 Laval, Quebec, Canada

Dr. Louis-Philippe Boulet is a Pneumologist at the Institut Universitaire de Cardiologie et de Pneumologie de Québec (IUCPQ) and full professor of medicine at the department of medicine at Laval University. He completed his medical studies at Laval University and a Fellowship at McMaster University, Canada. Dr. Boulet is Chair of the Knowledge Translation, Education and Prevention in Respiratory and Cardiovascular Health at Laval University.

He is a past-president of the Canadian Thoracic Society and chair of the Canadian Respiratory Guidelines Committee from 2008 to 2012. He is chair of the Global Initiative on Asthma (GINA Guidelines) Dissemination and Implementation Committee since 2009. He was the founder and president/scientific director of the Quebec Asthma and COPD Network, and first Vice-President of the Canadian Network for Asthma Care.

He is assistant editor for the Canadian Respiratory Journal, European Respiratory Journal, Therapeutic Education journal and past member of various editorial boards (such as CHEST), as well as reviewer for several medical journals.

Besides his clinical tasks and teaching activities, Dr. Boulet manages a research program mostly on four specific themes:  
 1. Mechanisms of development and physiopathology of asthma and airway hyperresponsiveness; 2. Phenotyping asthma in various populations; 3. Respiratory health of elite athletes; and 4. Patient/Medical Education, Knowledge Translation and Guidelines Implementation.

Dr. Boulet has been author on close to 500 medical publications, 600 Abstracts, 28 book chapters and 6 books. Doctor Boulet is frequently invited as a speaker at national and international meetings.

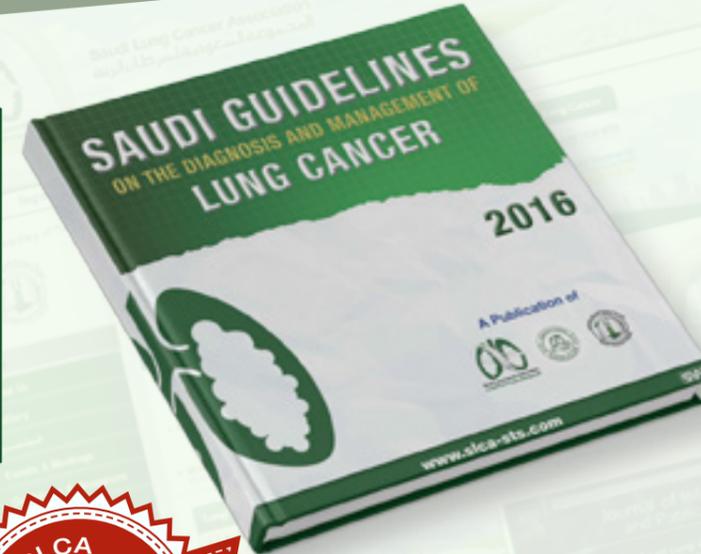


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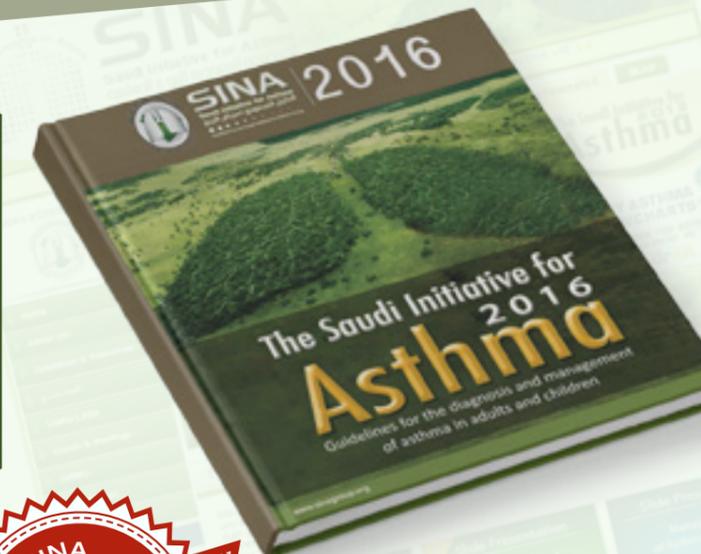
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 المبادرة السعودية للرئة والمسالك



## The Saudi Initiative for Asthma 2016 Guidelines for the Diagnosis and management of asthma in adults and children



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## FACULTY - PROFILE

BEYOND GULF INSPIRATION

## FACULTY - PROFILE

BEYOND GULF INSPIRATION



### **Abdulrahman A. AlRajhi, MD, MPH, FIDSA, FACP, FRCP Edin**

Consultant Infectious Diseases  
Department of Medicine  
Executive Director, Academic and Training Affairs  
King Faisal Specialist Hospital and Research Centre  
Riyadh, Saudi Arabia

Dr. Alrajhi graduated from King Saud University, Saudi Arabia in 1987. He is trained in Internal Medicine and subsequently Infectious Diseases at the Brigham and Women's Hospital in Boston. He received a Masters degree in Public Health from Harvard School of Public Health in 1992 in the field of International Health and Infectious Diseases Epidemiology. He joined King Faisal Specialist Hospital and Research Centre as a Consultant, Infectious Diseases in 1996. He became the Head, Section of Infectious Diseases in 2001, and Chairman, Department of Medicine in 2003. His Infectious Diseases practice and research focus on chronic infections in the immunocompromised host and tuberculosis. He has more than 50 group meeting abstracts, and 57 publications in peer reviewed journals including the New England Journal of Medicine and Clinical Infectious Diseases. Areas of his interest also include infectious diseases epidemiology and regional HIV epidemiology.



### **Yazan Said, MD**

Consultant, Allergy/Immunology and Pediatric Pulmonology  
King Fahad Specialist Hospital  
Dammam, Saudi Arabia

Yazan Said is a senior consultant in Allergy/Clinical Immunology (adults and pediatrics) and in Pediatric Pulmonology, who joined King Fahad Specialist Hospital in Dammam, Saudi Arabia since late 2007. After obtaining his medical degree from University of Jordan in Amman 1991, he did his pediatric residency at State University of New York in Brooklyn, and his fellowship training in Allergy/Clinical Immunology at Thomas Jefferson University Hospital in Philadelphia, Pennsylvania, and in Pediatric Pulmonology at University of California/Irvine and Miller Children's Hospital in Long Beach, California.

He worked in Spring Hill, Florida where he established "All Pediatric Pulmonary Care" center there and in Summerside, PEI Canada. He is a senior lecturer in many international meetings and member of many international respiratory, allergy and immunology societies. His main interests include cystic fibrosis, severe asthma, immunotherapy, immunodeficiency and urticaria.



### **Pallav Shah, MD, MBBS, FRCP**

Consultant Physician  
Royal Brompton Hospital  
Chelsea & Westminster Hospital  
Royal Brompton & Harefield Hospitals  
London, UK

Dr. Pallav Shah is a Consultant Physician at Chelsea and Westminster Hospital and the Royal Brompton Hospital, as well as Honorary Consultant Physician to the Royal Marsden Hospital and the Royal Hospital Chelsea.

He is founding chair of the interventional pulmonology advisory group for the British Thoracic Society and a member of the Lung cancer and Mesothelioma advisory group for the Society. He is also the lead clinician for lung cancer services at the Royal Brompton Hospital and the Chelsea and Westminster Hospital.



### **Prof. Dave Singh, MD**

Professor of Clinical Pharmacology  
and Respiratory Medicine  
Manchester University, UK

Dr. Singh is a senior lecturer and consultant physician in respiratory medicine and clinical pharmacology. After graduating from Cambridge University, Dave Singh trained in respiratory medicine and clinical pharmacology in Manchester. As part of his training, he spent time in industry working in Phase 1 respiratory studies, and completing an MD thesis. He is now senior lecturer at Manchester University, with clinical commitments at South Manchester University Hospitals Trust. His research is focused on airway inflammation in COPD, with studies of non-invasive biomarkers and basic science studies of airway pharmacology.



### **Adriano R. Tonelli, M.D.**

Staff Physician, Pulmonary Critical Care Medicine  
Department of Pulmonary, Allergy, and  
Critical Care Medicine  
Respiratory Institute, Cleveland Clinic  
Cleveland, OH, USA

Dr. Tonelli was valedictorian of his medical school class at the University of Cuyo, Mendoza, Argentina. After graduation, he trained in Cardiology at Universidad Favaloro, Buenos Aires, Argentina before moving to the United States.

He completed his Internal Medicine residency at Michigan State University, Lansing, Michigan followed by Pulmonary and Critical Care fellowship at University of Florida, Gainesville, Florida. He received the Young Investigator Award from the American College of Chest Physicians in 2008. During his fellowship Dr. Tonelli was involved in several research projects predominantly involving pulmonary hypertension.

He is board certified in Internal Medicine and in Pulmonary and Critical Care Medicine. Dr. Tonelli joined the Cleveland Clinic Respiratory Institute in August 2010. As a KL2 Clinical Research Scholar, Dr. Tonelli will study pulmonary and systemic endothelial (dys)-function and its relationship to prognosis and response to therapy in pulmonary arterial hypertension.

His career goal is to become an independent translational investigator conducting transdisciplinary team-based research aimed at understanding and managing patients with pulmonary vascular diseases.

## FACULTY - PROFILE

BEYOND GULF INSPIRATION

## TOF2016 FACULTY - PROFILE

BEYOND GULF INSPIRATION



**Mark Woodhead, BSc, DM, FRCP, FERS**  
Consultant & Honorary Clinical  
Professor of Respiratory Medicine  
Manchester, UK

Dr. Woodhead trained at King's College, University of London and his Junior doctor posts included City & University Hospital Nottigham, St James / St Georges Hospitals, London and Royal Brompton Hospital, London.

Following this Dr. Woodhead became a Consultant at CMFT and has been since 1992. Other Career achievements include: Chair of the development group that produced the NICE Pneumonia Guideline in 2014. Chairman of the European Respiratory Society LRTI Guidelines committee which published Guidelines in 2005 and 2011. Co-author of The British Thoracic Society Guidelines for the Management of Community-Acquired Pneumonia.

Previous Guideline Director and Assembly Head, European Respiratory Society and Associate editor European Respiratory Journal. Member of the North West TB Control Board and has been responsible for setting up TB cohort review in North West England. Previous clinical lead for the Advancing Quality Pneumonia Care Bundle in North West England. Also Dr. Woodhead has had more than 160 scientific publications mainly in field of lung infection.



**Hazzaa Alzahrani, MD**  
Consultant, Hematology / Bone Marrow Transplantation  
King Faisal Specialist Hospital and Research Centre  
Riyadh, Saudi Arabia

Dr. Hazzaa Alzahrani is currently working as a Consultant in the Section of Adult Hematology/Hematopoietic Stem Cell Transplantation in Oncology Centre at King Faisal Specialist Hospital & Research Centre, Riyadh, Saudi Arabia. He is also the Director of Non-neoplastic Hematology Program, Director of Fellowship Program in Oncology Centre and Chairman of the Scientific Board of Saudi Fellowship Program in Hematology.

Dr. Alzahrani obtained his MBBS degree with distinction in King Abdulaziz University, Jeddah. He acquired his MRCP (UK) certification in November 1994 and Arab Board of Internal Medicine in April 1995. He completed his Hematology Fellowship at University of Toronto for 2 years followed by Hemostasis and Thrombosis Fellowship in McMaster University both in Canada. He has numerous publications and abstracts as well as several research projects and studies.



**Mohamed Zeitouni, MD, FCCP**  
Consultant Pulmonary/Critical Care  
Department of Medicine  
King Faisal Specialist Hospital and Research Centre  
Riyadh, Saudi Arabia



**Hanaa Bamefleh, MBChB, FRCPC, MME, FIAC, CPHHA**  
Deputy Chairman, Lab Education  
Department of Pathology and  
Laboratory Medicine  
King Abdulaziz Medical City  
Riyadh, Saudi Arabia

Consultant of Anatomic Pathology and Pulmonary Pathology, KING ABDULAZIZ MEDICAL CITY (KAMC), Riyadh, Saudi Arabia

- Assistant Professor KING SAUD BIN ABDULAZIZ UNIVERSITY for HEALTH SCIENCES (KSAU-HS)
- Canadian Board of Anatomic Pathology, McGill University, Montreal, Quebec, Canada- 1992
- Fellowship in Pulmonary Pathology & Cytopathology, McGill University, Montreal, Quebec, Canada-1993
- Fellow of the International Academy of Cytopathology, (FIAC)- 2009
- Master in Medical Education from KSAU-HS (MME)- 2011

Deputy Chairman for Education Department of Pathology and Laboratory Medicine (DPLM), KAMC- 2011-current  
Founder of Saudi Board of Anatomic Pathology, Saudi Commission for Health specialties (SCFHS)- Since 2007



**Emma Beddow, MB.BS, FRCS(C-Th)**  
Consultant Thoracic Surgeon  
Royal Brompton & Harefield Hospitals  
London, UK

Ms Emma Beddow has special expertise in lung cancer surgery, major airway surgery and stenting, mediastinal tumours, etastectomy, benign and malignant pleural disease and pectus surgery. Ms Emma Beddow has experience in bronchoplastic resections, including distal airway reconstruction, extended resections for lung cancer, tracheal surgery, endobronchial cryotherapy, chest wall tumours, video-assisted thoracoscopic surgery and surgery for emphysema.

Ms Beddow attends European conferences to share the latest expertise on thoracic conditions and present scientific papers. Overseas doctors visit the Royal Brompton & Harefield NHS Foundation Trust to observe her and colleagues' techniques and clinical approach.

#### News, Publications and Research

Miss Beddow co-authored the Oxford Handbook of Cardiothoracic Surgery, published by the Oxford University Press.



**Emad Anwar Dawoud, MD, PhD**  
Consultant Clinical Oncology  
Tawam Hospital (Affiliated with Johns Hopkins)  
Al Ain, UAE

#### Qualifications:

Federation of Royal Colleague of Physician of United Kingdom Medical Oncology Specialty - 2012  
M.D, PhD.Clinical Oncology Faculty of Medicine Al Azhar University Cairo Egypt - 2012

#### Experience:

September 2014 - Current: Medical Oncologist, Tawam Hospital Al-Ain, UAE.  
October 2009 - September 2014: Senior Specialist Medical Oncology, Dubai Hospital, UAE.



**Prof. Fouad Al Dayel, MD, FRCPA, FRCPath**  
 Professor and Chairman,  
 Department of Pathology and Laboratory Medicine  
 King Faisal Specialist Hospital & Research Centre  
 Riyadh, Saudi Arabia

**Professor of Pathology**  
 College of Medicine, Al Faisal University-Riyadh  
 Riyadh, Saudi Arabia

**International Fellow**  
 College of American Pathologists

**Corresponding Fellow for Saudi Arabia**  
 Royal College of Pathologists of Australasia

**Deputy CAP Commissioner for Middle East**  
 College of American Pathologists Northfield IL, USA

**OTHER TITLES:**  
 Consultant Anatomic Pathologist (1995 to present)  
 Department of Pathology and Laboratory Medicine  
 King Faisal Specialist Hospital and Research Centre

**SUBSPECIALTY INTERESTS:**  
 Lung Pathology  
 Bone Pathology  
 Diagnostic Molecular Oncology of solid tumors  
 Stem Cell Applications in Clinical and Research (Cell Therapy)  
 Laboratory Accreditation and Quality Management  
 Total Lab Automation  
 Cancer Genomic Research (ICGC Project)

**NO. OF PUBLICATIONS: 122**  
**NO. OF ABSTRACTS: 152**



**Prof. Abdul Rahman Jazieh, MD, MPH**  
 Chairman, Saudi Lung Cancer Association/ Lung Cancer Academy  
 Chairman, Oncology Department  
 King Abdulaziz Medical City (KAMC)- Riyadh  
 Professor, King Saud University for Health Sciences  
 National Guards Health Affairs  
 Riyadh, Saudi Arabia

**Current Positions:**  
 Chairman, Department of Oncology, KAMC, Riyadh, KSA  
 01/2006- Present Professor, King Saud bin Abdulaziz University for Health Sciences  
 06/2011-Present: Member, ASCO International Affairs Committee

**Medical Education:**  
 MD Sept, 1988 Damascus University Medical School, Syria  
 MPH May 1997 Masters Degree in Public Health from Tulane, University, New Orleans, Major in Health Education/  
 Communication

**Residency:**  
 7/90 - 6/93 Internal Medicine Residency at St. Francis Hospital, an affiliate of U of Illinois, Evanston, Illinois

**Fellowship:**  
 7/93 - 6/ 96 Hematology and Medical Oncology Fellowship, University of Arkansas for Medical Sciences, Little Rock, Arkansas

**Previous Appointments:**

- 7/96 - 6/00 - Assistant Professor of Medicine, Division of Hematology/Oncology University of Arkansas for Medical Sciences (UAMS), Little Rock, Arkansas.
- 7/00 - 8/04 - Associate Professor of Medicine, Division of Hematology/Medical Oncology at University of Cincinnati (UC), Cincinnati, Ohio.
- 9/04 - 1/06 - Professor of Medicine, Division of Hematology/Medical Oncology at University of Cincinnati (UC), Cincinnati, Ohio
- 5/02 - 1/06 - Director, Division of Hematology/Medical Oncology University of Cincinnati Medical Center, Cincinnati, Ohio

**Board Certifications:**  
 Internal Medicine Board, Hematology Board and Medical Oncology Board, USA

**Licensure:**  
 Licensed to practice Medicine in OHIO, USA and Saudi Arabia

**Memberships:**  
 Fellow American College of Physicians (FACP), American Society of Hematology, American Society of Clinical Oncology, American Medical Association, American Association for Cancer Research, American Association of Cancer Education

**Awards and Honors:**  
 1982 Merit Award Recipient from the Syrian Ministry of Education.  
 1995 Merit Award Recipient from the American Society of Clinical Oncology.  
 2004 "40 under 40" People to Watch at the UC Medical Center  
 2005 "Unsung Hero Award" by Cancer Family Care, Cincinnati, OH  
 2006 Proclamation to the City of Cincinnati naming the day of January 5th 2006 as Dr. Abdul Rahman Jazieh day

**Publications:**  
 Dr. Abdulrahman Jazieh has more than 100 publications as manuscripts, book chapters and abstracts.



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**Prof. Atul C. Mehta, MD, FACP, FCCP**

Professor of Medicine, Lerner College of Medicine  
 Buoncore Family Endowed Chair in Lung Transplantation  
 Staff, Department of Pulmonary Medicine, Respiratory Institute  
 Cleveland Clinic, Cleveland, Ohio, USA  
 Senior Editor, Journal of Bronchology and Interventional Pulmonology  
 Cleveland, OH, USA

Atul C. Mehta, M.B., B.S., is Vice-Chairman of the Department of Pulmonary and Critical Care Medicine, Head of the Section of Bronchology and acting Medical Director of the Lung Transplant Team at Cleveland Clinic. Dr. Mehta's specialty interests are the treatment of lung cancer, diagnostic and therapeutic bronchoscopy, lung transplantation, interstitial lung diseases and pulmonary hypertension.

He is board-certified in internal medicine, pulmonary disease and critical care medicine. Dr. Mehta's research interests are therapeutic bronchoscopy, lung transplantation and idiopathic pulmonary fibrosis. He is named in the 2000-2001 Top Doctors in America; 1999-2000 edition of Best Doctors in America; Who's Who in Medicine and Healthcare, 1997; Best Doctors in America- Midwest Region, 1996-1997; and International Who's Who, 1996-1997.

In 1993 he was awarded the Distinguished Physicians of the Year by the Indian Physicians of Northern Ohio and in 1992, the Cleveland Clinic's Bruce Hubbard Steward Award for his ability to combine sensitivity and compassion with knowledge and skill in the practice of medicine.

Dr. Mehta was the founder and president of the American Association for Bronchology. He is a Fellow of the American College of Chest Physicians, the American College of Physicians, and the American Society for Laser Medicine & Surgery. He also is an active member of the American Thoracic Society, International Bronchoesophagological Society, International Society for Heart & Lung Transplantation and World Association for Bronchology.



**Prof. Khaled M. Al Kattan, MD, FRCS**

Consultant Thoracic Surgery  
 King Faisal Specialist Hospital and Research Centre  
 Professor of Thoracic Surgery  
 Dean, College of Medicine Alfaisal University  
 Riyadh, Saudi Arabia

Prof. Khaled Manae Al-Kattan. Dean College of Medicine , Acting Vice President for Development at Alfaisal University and Consultant and Head Section of Thoracic Surgery at King Faisal Specialist Hospital & Research Centre. He was a graduate from King Saud University 1983 got his FRCS from Edinburgh with a gold medal in 1988. Appointed as an assistance professor at KSU in 1989, Associate professor in 1995 and then a full professor in 2000. He served as the director of continuous medical education at the college. He was a co-founder of both the Saudi thoracic society and Pan Arab Chest Society.

He is the Middle East regent for the European Society of Thoracic Surgery. He is a member of many international societies and sits as a senior editor for the Annals of Thoracic Medicine journal. He is in the editorial board and reviewer of most of the international thoracic surgery journals. Have extensive research and publication in his field, presented many abstracts in international symposiums. Was invited as an international speaker in many medical events. He is the Chairman of the National Lung Cancer Study Group and the national lung transplant program. Have extensive work in medical education and a board member of its Saudi society. Have contributed to public health education and establishment of several charity medical associations.



**Walid E. Khalbuss, MD, PhD, FIAC**

Professor of Pathology, University of Pittsburgh,  
 Pittsburgh, PA, USA  
 Medical Director of GE Clarinet Diagnostic Services and  
 Cytology, NGH Hospital-Riyadh  
 GE Healthcare: Middle East; North Africa; and Turkey  
 Riyadh, Saudi Arabia

Dr. Walid E. Khalbuss is a professor of pathology at University, of Pittsburgh, Pittsburgh, Pennsylvania, USA. He is also the Medical Director of GE Clariant Diagnostic Services at National Guard Hospital (NGHA)-Riyadh, KSA. Dr. Khalbuss has board certifications in Anatomic Pathology; Clinical Pathology, and Cytopathology from the American Board of Pathology. He did his pathology training including two fellowships: one in Oncologic Surgical Pathology and one in Clinical Cytopathology at the New York Medical College, Valhalla, New York, USA.

His pathology training and fellowship were under supervision of Dr. Myron M. Melamed; a known pioneer pathologist and ex-chairman of Pathology Department at Sloan Kettering Memorial hospital, New York, NY.

Dr. Khalbuss has published extensively, and has been a speaker in major pathology meetings such as CAP; USCAP; ASCP, ASC; BSCC; and IAC. He has to his credit 89 peer-reviewed articles in major scientific journals, over 134 abstracts; 7 textbooks and Atlases in pathology, and numerous book chapters. He travels widely and is a sought after speaker nationally and internationally.

He is a member of the College of American Pathologists (CAP); American Society of Clinical Pathology (ASCP); and a member of the International Academy of Cytology (IAC) Educational and QA Committee. He is on the editorial board of several journals and has major appointments in several professional Pathology organizations.

His major areas of interest include pathology informatics; QA, ancillary testing, FNA cytology, and EBUS cytopathology.



**Abdulhadi Almutairi, MD, SBIS, FICS**

Consultant Thoracic Surgeon  
 Chairman, Physician Training Department  
 Director, Surgery Residency Program  
 Department of Surgery  
 King Fahad Specialist Hospital- Dammam  
 Dammam, Saudi Arabia

Dr. Almutairi graduated from the College of Medicine, King Saud University in 2000. He completed his surgical residency at King Faisal Specialist Hospital & research center, Riyadh, Saudi Arabia.

His passion for thoracic surgery has led him to join a clinical thoracic surgery fellowship in a world renowned thoracic surgery program at McMaster University, Hamilton, Ontario, Canada. He joined King Fahad Specialist Hospital-Dammam in 2012 as a consultant thoracic surgeon. Throughout his career, Dr. Almutairi has developed a strong interest in thoracic oncology in general and lung cancer management specifically. Beside lung cancer he is also interested in pulmonary metastasectomy, tracheal surgery, mediastinal surgery, and chest wall primary tumors.

He is an active member of the Society of Thoracic Surgery (STS), Thymic Malignancy Interest Group (TMIG), and Chest Wall International Group (CWVIG). He has 14 publications and currently working on editing a thoracic surgery textbook.



**Wasim F. Raslan, MD, PhD, FCAP**  
 Consultant Pathologist  
 John Hopkins Aramco Health Care  
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Dr. Wasim F. Raslan is a consultant pathologist at John Hopkins Aramco Health care and past Chief of Pathology and Laboratory services at Saudi Aramco medical service organization (SAMSO) 2005 - 2010. Dr. Raslan has board certification in anatomical pathology and clinical pathology since 1990 from the American Board of pathology. He did his pathology training in addition to a Ph.D degree in pathology and experimental virology at University of Illinois in Chicago, USA. In addition, he did two Fellowships: One in oncologic surgical pathology and M.D. Anderson cancer Center, in Houston USA; and one in head and neck pathology at the University of Pittsburgh, USA under the supervision of Dr. Leon Barnes, a known pioneer in head and neck pathology.

Dr. Raslan has to his credit 30 peer reviewed articles in major scientific journals, over 70 abstracts, and he has been a speaker in numerous national and international pathology meetings such as European Congress on Cytology, International Academy of Pathology- Arab Division, Chicago Pathology Society, and Syrian pathology Society. He is a member of the College of American Pathology (CAP), American Society of Clinical Pathologists (ASCP), and the International Academy of pathology (IAP). He is on the editorial board of several anatomical and clinical pathology journals. His major areas of interest include Head and Neck Pathology, Fine-Needle Aspiration cytology (FNA) molecular microbiology, and diagnostic molecular testing in surgical pathology and cytology.

His current areas of research include: The impacted off Epidermal Growth Factor Receptor (EGFR) mutations on prognosis and treatment in different types of cancers, and the effect of macrophages on cancer development, patient response to treatment and survival in Hodgkin's lymphoma and other malignancies.



**Alaa Alsalam, MD, FRCPA**  
 Consultant Pathologist  
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- Graduated from King Faisal University in Dammam, Saudi Arabia 2001.
- Joined King Abdulaziz Medical City in Riyadh in 2004 as a prescholar resident in Anatomical Pathology.
- Did my residency training in Anatomical Pathology at Royal Prince Alfred Hospital affiliated with University of Sydney, Sydney Australia 2007-2012 and obtained the Fellowship of Royal College of Pathologist of Australasia 2012.
- Did one year clinical fellowship in soft tissue and bone pathology at MD Anderson Cancer Center Houston Texas, USA in 2013-2014
- Did one year clinical fellowship in molecular Genetic pathology at MD Anderson Cancer Center Houston Texas, USA in 2014-2015
- Currently works as a consultant pathologist at King Abdulaziz Medical City in Riyadh.
- Member of Association for Molecular Pathology since 2014.
- My main interest is in pathology of bone and soft tissue, molecular pathology with additional experience in thoracic pathology.
- Did research studies in next generation sequencing of sarcomas and pe-analytical factors involved in the clinical analysis of a comprehensive next-generation sequencing panel.



**Khalid Alsaleh, MBBS, FRCPC, FACP, MSc, CIP**  
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Khalid Alsaleh is an assistant professor of Hematology and Medical Oncology, Internal Medicine Department, College of Medicine, King Saud University (KSU), Riyadh, Saudi Arabia. He received his bachelor degree in medicine and surgery degree (2000) with an honor degree from King Saud University.

He completed his training in internal medicine (2007), Hematology (2008) and medical oncology (2010) at McMaster University in Hamilton, Ontario, Canada. Subsequently, he received his Master of Science degree in Health research methodology in 2011; He completed a fellowship in Lung cancer with Clinical investigator program (CIP) form the royal college of physicians in Canada (2011).

He heads the Hematology and Oncology division at King Khalid University Hospital in King Saud University, Riyadh, Saudi Arabia. He participated in national projects for cancer therapy and access to cancer care in Saudi Arabia. in 2013-2014



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Jamal Zekri has received his higher medical oncology training in Weston Park Hospital (Sheffield, England). He practiced as a consultant medical oncologist at Clatterbridge Centre for Oncology (Merseyside, England) until April 2008. Currently, he is an associate professor at Al Faisal University and the head of medical oncology services at King Faisal Specialist Hospital & Research Centre (Jeddah, Saudi Arabia). He has published more than 50 papers in peer reviewed journals and presented more than 30 abstracts of original research wok at international conferences.



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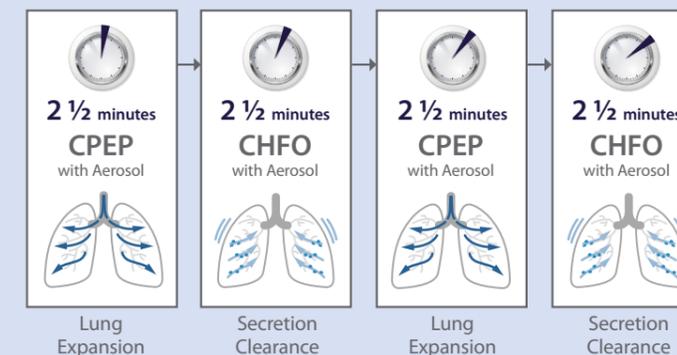
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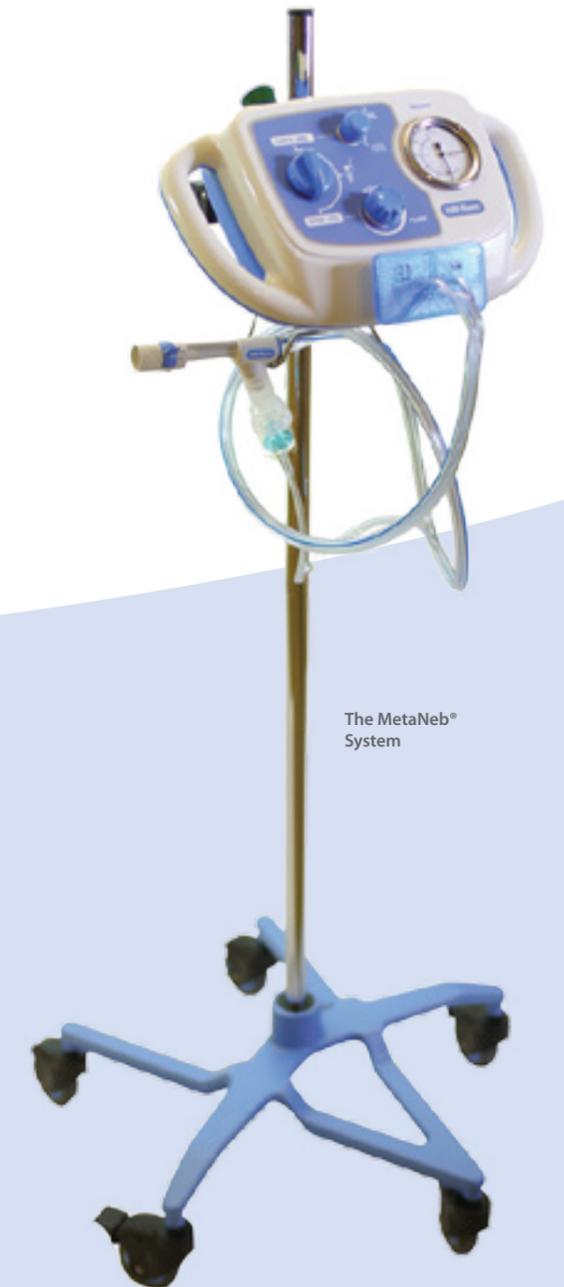
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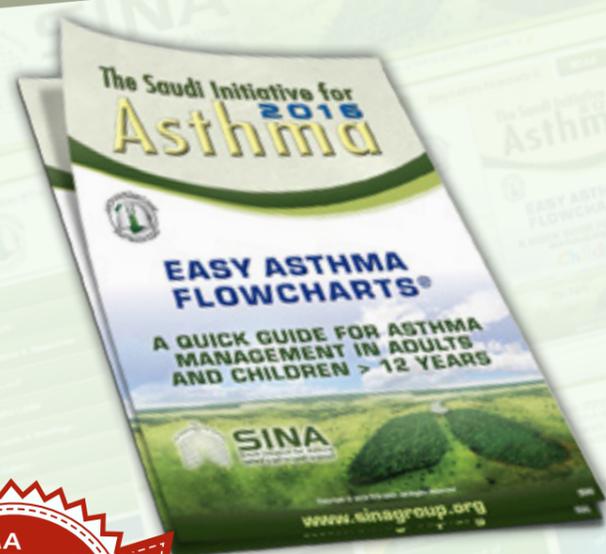
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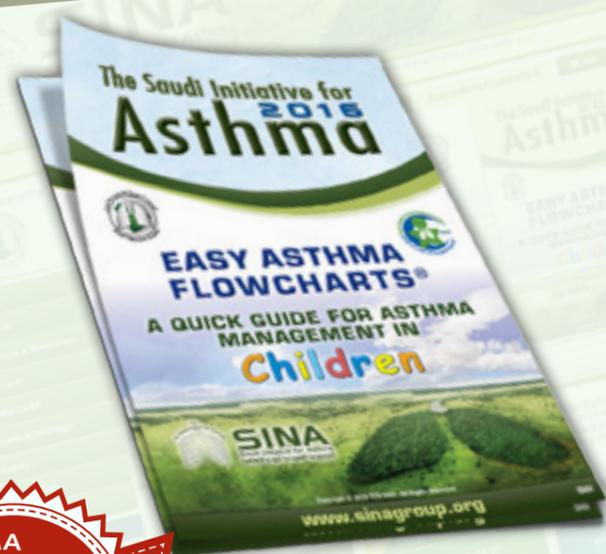
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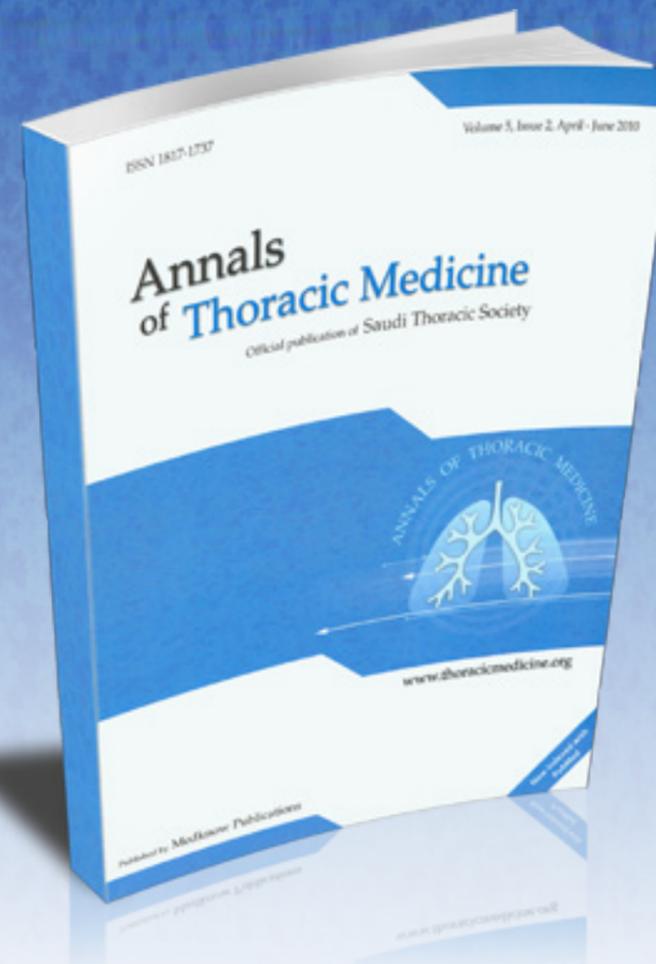
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### Venous Thromboembolism Risks and Prophylaxis in King Fahd Hospital, Madinah, Saudi Arabia

Ayman Kharba, MD, Mohammad Al Boud, MD, Reham Kharabah, MS, Amal Albeihany, MD

#### Objective:

To evaluate the risk factors, physician's compliance and implementation of American College of Chest Physicians (ACCP) guidelines for venous thromboembolism (VTE) prophylaxis at our hospital.

#### Methods:

A retrospective cohort study was conducted in King Fahd Hospital, Madinah from July 2015 to September 2015. We used the American College of Chest Physicians (ACCP) 2012 guidelines and Caprini's scores to assess VTE risk and to determine whether patients had received recommended prophylaxis. All hospital in-patients aged 14 years or above were assessed for risk of VTE by reviewing the hospital chart. The primary endpoint was the rate of appropriate thromboprophylaxis.

#### Results:

414 patients were studied. The mean age was 47.74 years, and 208 (50.2%) were female. There were 292(70.5%) patients at high risk, and of 73(17.6%) at moderate risk as per caprini score. According to the ACCP criteria, 365 (88.1%) patients were at risk for VTE and qualified for prophylaxis. Although 217 (59.4%) received some form of prophylaxis, only 45 (20.7%) of them received ACCP-recommended VTE prophylaxis.

#### Conclusion:

In our hospital most of the patients are at high risk for developing VTE. VTE prophylaxis guideline is not properly implemented and extremely underutilized. Strategies should be developed and implemented to ensure patient's safety.

### Early Results of Excision of 220 Cases of Primary Chest Wall Tumors in 12 Years Period

Amer Bilal

#### Objective:

To assess the surgical outcomes in primary chest wall tumor.

#### Methodology:

220 patients from June 2002 to Dec 2014 were retrospectively analyzed. Patients of all ages, both sexes and operable primary chest wall tumor were included. Clinical evaluation, routine investigations, chest radiographs, computed tomography and biopsy were done. Incisional biopsy was done for >5cm mass while excisional biopsy was done in smaller tumors. Complete excision of the chest wall tumor with 5cm free margin and one normal rib above and one normal rib below was done. Specimen was sent for histopathology. In skeletal reconstruction plastic surgeon was involved. Patients sent to oncologist for adjuvant therapy accordingly. One year follow-up were done.

#### Result:

Out of 220 patients, 143 were male and 77 were female, age ranges from 9-80 years with a median of 27.8 years. 151 patients experienced painless mass and 69 patients painful mass. 113 chest wall masses presented on right side, 70 left sided and 37 on

sternum. Sizes were 10 cm 08. Chest wall resection and primary closure was done in 107 cases while in 113 cases resection and reconstruction done using marlex mesh alone in 98 cases and reinforced with methyl methacrylate in 15cases. Histologically Chondrosarcoma was reported in 61.5%, Fibrosarcoma in 25%, Ewing sarcoma in 11.5% while 2% specimens were reported as chondroma. Postoperative flail observed in 8cases, 5 patients died despite prolonged ventilation. All patients referred to oncologist post operatively. One year follow up of all 215 alive patients were tumor free.

#### Conclusion:

Primary chest wall tumor can be safely managed by resection and primary closure or chest wall reconstruction and are associated with long term survival.

### Traumatic Diaphragmatic Rupture- Experience of 125 Cases

Amer Bilal

#### Objective:

Experience with traumatic diaphragmatic hernias was reviewed to identify pitfalls in the diagnosis and treatment of this injury.

#### Material and Methods:

A Computerized chart review of all patients admitted to the Thoracic Unit with traumatic diaphragmatic ruptures was undertaken for the period of January 2001 to December 2014.

#### Results:

Out of 125 patients, 86 were male and 39 were female. Age ranges from 14 to 61 years with a median age of 23 years. Diaphragmatic rupture was caused by blunt injury in 103 (82.4%) cases and penetrating Injury in 22 (17.6%) cases. Traumatic diaphragmatic hernia was right-sided in 15 (12%) patients and left-sided in 110 (88%). The diagnosis was made by chest X-ray, thorax and upper abdominal computed tomography, and upper Gastrointestinal contrast study. Repair of diaphragmatic hernia was performed through a thoracotomy in 107 cases and in 18 (14.4%) cases through thoracoplastomy primary repair was done in 110 cases whereas in 15 cases mesh repair was done. Stomach spleen gut and omentum was present in left side hernia in majority of cases whereas liver gut and omentum was present in right side hernia. The mortality rate was 3.2% (n=4) including respiratory failure 2, myocardial infarction 2. Morbidity was 5 including wound infection 4, collection 1. Chest pain, abdominal pain, Or dyspnea were the predominant symptoms

#### Conclusion:

Early diagnosis and treatment reduce intra-and post-operative morbidity and mortality

### To Compare the Outcome of Surgical Resection for Bronchiectasis with and without Intercostal Muscle Flap

Amer Bilal

#### Objective:

To compare the outcome of surgical resection for bronchiectasis with and without intercostal muscle flap. Materials and methods: Computerized clinical data of 1008 patients surgically managed for bronchiectasis from June 2002 to May 2014 were respectively analyzed. Patients were registered through OPD. After necessary preoperative workup the patients were subjected to the surgical procedure. Detailed scrutiny of the record was carried out to determine the surgical outcome.

#### Result:

A total of 1008 patients of diagnosed cases of bronchiectasis underwent various surgical procedures. Male to female ratio was 3:1. Age range was 13-62 years with a mean age of 28.7 years. In initial 504 cases intercostal muscle flap were not used. We employed intercostal muscle flap in last 504 patients undergoing different procedures. Included left lower 145, left upper 106, right lower 96, and right upper lobectomies 103. Similarly flaps were done in 54 pneumonectomies. We observed decreased rate of bronchopleural fistula in intercostal muscle flap group 11/504 (2.18%) then in non-intercostal muscle flap group 21/504(4.16%).

#### Conclusion:

There is a variety of flaps that can be used and tailored in lung resectional surgery. Mobilization of these flaps should be a part of training of a general thoracic surgeon. Use of flaps significantly reduces the dreadful incidence of bronchopleural fistula formation.

### Surgical Resection of Pulmonary Hydatid-An Experience of 568 Cases

Amer Bilal

#### Objective:

To assess outcome of surgical resection of pulmonary Hydatid disease

#### Methodology:

All patients admitted to cardiothoracic unit from June 2002 to Dec 2014 with pulmonary hydatid cysts were evaluated retrospectively



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**Results:**

Total of 568 patients were operated for hydatid cystectomy. 396 were male and 172 female. Median age was  $39.14 \pm 16.8$  years (range, 16–69 yr). 377 of these were symptomatic, with hemoptysis in 251 and chest pain in 126 cases. 111 patients were asymptomatic, found to have Hydatid cyst incidently. 82 Patients presented with ruptured hydatids leads to Pneumothorax in 35 cases and Empyema in 47. There were 316 Hydatid cysts on the right side while 254 on the left side. Hydatid cystectomy was done in 460 cases, wedge resection 73, Lobectomy 35, Bilobectomy 6 and Pneumonectomy was done in 2 patients. Albendazole was prescribed to all patients postoperatively. Patients were followed up for a period of  $13 \pm 15.4$  months (range, 2–36 months). 31(5.45%) patients had postoperative complications including wound infection in 22 patients, bronchopleural fistula in 5 patients and recurrence in 4 patients. Mortality was 1.93% including respiratory failure 08 and septicemia in 03 patients.

**Conclusion:**

The principal involved in surgical resection of pulmonary Hydatid included; in toto resection, individual closure of bronchial communication, obliteration of pleural space and assessment of residual lobe, whether viable or required resection and anthelmintic medical regimen post operatively.

### Vitamin D Receptor Gene Polymorphism And 25 Hydroxy Vitamin D Levels In Egyptian Patients With Pulmonary Tuberculosis

Abdellah Hamed Khalil Ali, Aida Abdeen Mahmoud

**Background:**

Vitamin D is a potent immune modulator of innate immune responses, and its deficiency was implicated in the activation of tuberculosis (TB). The effects of vitamin D are exerted by interaction with the vitamin D receptor (VDR) and may be influenced by polymorphisms in the VDR gene.

**Methods:**

We conducted a case-control study to identify 25(OH) D levels and FOK1 polymorphism of VDR gene in a group of newly diagnosed pulmonary TB patients and compared to the findings in a group of healthy controls.

**Results:**

Obtained results revealed that 25(OH) D levels were significantly lower in the patients than in the controls ( $P = 0.05$ ). Also, no association between VDR genotype and 25(OH) D levels was found.

**Conclusion:**

FokI polymorphisms in the VDR gene do not appear to be responsible for host susceptibility to human tuberculosis in Egyptian population. However, vitamin D deficiency may be a cause of the susceptibility to tuberculosis.

### PDT Treatment Of The Central Lung Cancer

Sadykova G.A., Sadykov R.R.

**Aim of the study:**

To evaluate the efficacy and safety of chlorine series photosensitizer for the central lung cancer photodynamic therapy (PDT).

**Material and Methods:**

The clinic TMA held PDT 41 patients with central lung cancer. 2 hours before the procedure to patients intravenously injected chlorine series (Photolon, photoditazin) at a dose of 0,7-1,9 mg / kg. For PDT therapy was performed by laser installation with a wavelength corresponding to the absorption spectrum of the photosensitizer, the power supplied doses ranged from 0.4 W to 1.6 W, the laser energy density of 100-300 J / cm<sup>2</sup>. Endoscopic procedures performed using video system OLYMPUS EVIS Exera 160. For anesthesia using local anesthetic lidocaine and general sedation.

**Results:**

The immediate results were traced in 37 patients. Terms monitoring of patients ranged from 5 days to 3 years. As an estimate of the treatment used data bronchoscopy, spirometry, radiological picture, as well as the dynamics of patient complaints. During bronchoscopy 5-7 days in 8 (21.6%) patients had superficial necrosis of the tumor in 27 (73%) of a deep tumor tissue necrosis, 6 of them damage to surrounding healthy tissue, 2 patients of reaction from the tumor tissue was observed. During bronchoscopy, performed 1 month after PDT, complete tumor regression was observed in 23 (62.2%), partial response - in 12 (32.4%) patients, 2 patients with tumor shrinkage is not revealed. If the energy density of the laser radiation (E) is less than 200 J / cm<sup>2</sup>, the frequency marked necrotic changes every 5-7 days after PDT was observed in 5 (45%) of 11 patients after the application dose of 200 or more J / cm<sup>2</sup> at 22 (84.6%) of 26 patients. Similar results were obtained after evaluating the degree of tumor regression after 1 month after PDT: complete regression at E, is less than 200 J / cm<sup>2</sup> was achieved in 2 (18.2%) of 11 patients at E greater than or equal to 200 J / cm<sup>2</sup> - at 21 (80.8%) of 26 patients ( $p < 0,001$ ). Clinically, the implementation effect of photodynamic therapy was shown in the complete cessation of hemoptysis in 75% of patients, reducing cough noted 55% of patients, reducing breathlessness - 47%

of patients with these symptoms. Positive dynamics in the form of X-ray resolution of atelectasis and eliminate air disturbances observed in 84% of cases. Spirometry before and after PDT procedure was conducted in 14 patients with tumor obturation large bronchi. In 4 patients with tumor stenosis of the main bronchus increase in lung capacity after the PDT procedure ranged from 6 to 33% (on average - 20%), 8 patients with bronchial obstruction share - from 3 to 9% (on average 6%). In all patients, administration of a photosensitizer proceed without side reactions, and tolerability of these drugs has been satisfactory. Manifestations of cutaneous phototoxicity, subject to light conditions for 3 days after PDT was observed. The most common complications of PDT procedure are local inflammatory processes. Of the 39 patients observed in 5 developed pneumonia of mild severity, 4 patients - endobronchitis accompanied characteristic clinical and radiological symptoms, and endoscopy was defined focal edema and hyperemia of bronchial mucosa on the affected side. In the course of studies to reduce the frequency of inflammatory complications we decided to use broad-spectrum antibiotics immediately after the PDT procedure for 5-7 days, which greatly reduced the number of bronchitis and pneumonia.

**Conclusion:**

Photodynamic therapy with chlorine series has a high clinical efficacy. The immediate results of PDT using Photolon and comparable to Photoditazin results from the use of first generation photosensitizers, drugs are safe to use and does not exhibit a pronounced phototoxic skin. Using this approach will improve the results of combined treatment of central lung cancer.

### Contemporary Issues of Laboratory Diagnostics of Thrombocyte Aggregation Properties at an Early Stage of Medical Rehabilitation in Patients with Chronic Obstructive Pulmonary Disease

G.A. Sadykova, Alyavi A. L.

**Purpose:**

Identify the features of platelet hemostasis in patients with chronic obstructive pulmonary disease (COPD) in conjunction with coronary heart disease (CHD).

**Material and Methods:**

We examined 49 patients with COPD of I-II degree of activity of inflammatory process in combination with ischemic heart disease angina 2 FC (age  $59.7 \pm 3.8$  years, disease duration of  $10.7 \pm 2.9$  years). We divided patients in two groups according to the activity of COPD. The first group contained 18 patients with the first degree of activity COPD. They received the leech therapy on biologically active points of lungs and heart on alternate days (5 treatments). The second group consisted of 11 COPD patients with 2 degree of activity. They received low-frequency alternating magnetic field at a dose of 35 MLT at the projection of thoracic vertebrae 7-9, daily (10 treatments). The control group consisted of 10 healthy people. All patients received basic therapy according to international guidelines. Platelet aggregation was determined using the aggregation analyzer "SOLAR" (Belarus). We assessed the aggregation using the complex size curve and the curve of light transmission as well as adenosine diphosphate (ADP) with a final concentration of 0.5  $\mu$ m as an inducer. Finally, we evaluated the functional activity of platelets (the degree and speed of aggregation, degree of disaggregation, and the start time of aggregation).

**Results:**

It is established that in patients with COPD in combination with CHD to AK with first and second degree of inflammatory activity, the maximum extent of ADP-induced aggregation significantly exceeds the same parameter in the healthy volunteers ( $p < 0.05$ ), indicating increasing aggregation activity of platelets in these patients. Revealed statistically significant direct correlation between the degree of activity of inflammatory process with the maximum degree of ADP-induced aggregation. So in CHD patients in combination with II degree of activity of COPD revealed significant ( $p < 0.001$ ) increased the platelet function of platelets, whereas in patients with the I degree of COPD, these figures were the lowest, but did not reach normal values as in healthy persons. After the treatment in both groups noted a decrease in the rate and extent of aggregation, the extension of the start time of the aggregation, to a greater extent in patients with first than in patients with II degree of activity of COPD who did not reach the control level.

**Conclusion:**

Thus, in patients with COPD combined with ischemic heart disease showed an increase of ADP-induced platelet aggregation, indicating increasing aggregation activity of platelets, which undoubtedly plays a role in the development of intravascular disorders of microcirculation in these patients. The use of non-pharmacological methods of treatment, namely the treatment and AC magnetic fields on early stages of increasing aggregation activity of platelets in patients with pulmonary and cardiac profile is effective.

### Risk Factors Of Prolonged Mechanical Ventilation For Post Cardiac Surgery Patients In Althawra Hospital, Sana'a, Yemen

Abdulrahman Alaizary

**Introduction:**

Prolonged mechanical ventilation among cardiac surgery patients has been correlated with negative clinical outcome and increased healthcare resources utilization. This study aimed to identify the risk pre-operative intra operative and postoperative

for prolonged ventilation among cardiac patients in AlThawra Modern General Hospital (TMGH).

#### Method and Material :

Observational study was carried out during a two-month period (from 1 August 2014 to 30 September 2014) among 70 consecutive patients who were admitted to cardiac surgery intensive care unit of cardiac center. Short questionnaire on basic socio-demographic characteristics and clinical patient data was collected. All patients had the same anesthetic and postoperative management. Statistical analysis was performed with SPSS version 20 and using bivariate analysis and multivariate logistic regression. The p-value of  $p < 0.05$  was considered as statistically significant.

#### Results:

Incidence of prolonged mechanical ventilator of post cardiac surgery was 37.1% (26/70) through bivariate analysis, multivariate logistic regression. Low Ejection fraction of left ventricle were inversely related to mechanical ventilation time (AOR= 0.872) and hemodynamic instability were associated with prolonged mechanical ventilation time (AOR=16.35).

#### Conclusion:

Low ejection fraction of Left Ventricle and Hemodynamic Instability post operation were identified risk factors for prolonged mechanical ventilation of post cardiac surgery.

### Pediatric Pneumonia And CRP Monitoring

Bajraktarevic Adnan, Skopljak Amira, Miokovic Milan, Putica Trhulj Sanja, Lokmic Elvira, Kurtagic Sabina, Novo Ahmed, Masala A

#### Background:

Today, about 450,000 million people a year or 7% of the world population are diagnosed with pneumonia and 4 million die from the disease of which half are children. Pneumonia is pathomorphologically entity that is characterized by the formation of exudates in the pulmonary alveoli and pulmonary infiltrates in interalveolar areas with consolidation of lung parenchyma. Manifested by different clinical picture and poorly defined syndrome, particularly in children. All assays are based on the ability of CRP to bind to a variety of biological ligands forming CRP ligand complexes. CRP has a high predictive value when carried out for 24 to 48 hours after onset of symptoms of the infection.

#### Methods:

The research was undertaken in pediatric health centers in Sarajevo four municipalities as: Stari Grad, Center, New Sarajevo, New Town plus dispensary Ilidza and dispensary Vogosca, with corresponding three offices in relation to the colder-year period in time from the beginning of October 2012 until the end of April 2013. The study included 948 children with pneumonia in the area of Sarajevo Canton, both sexes, aged 6 months to less than 7 years. The metering values are replaced with the ordinal value by entering the 8 mark of the success of therapy made it possible to test the hypothesis.

#### Results:

So only less than 1% have extremely low values very unsuccessful therapy under 40,89% fall in CRP. So a normal distribution showing a Gaussian distribution curve slightly shifted to the left because of the greater negative results of 100% compared to the positive results of the theoretical maximum specific to + 99.99%. Otherwise platibasic curve is slightly blunt with a slight curvature. Almost ninety percent of treatment results achieved were in preschool children (of all groups with a variation of 89.89%) in the outpatient conditions (in hospitals 95.51%). Mean results (mean, deviation and confirmed range) was  $54.06 \pm 31.65$  (%) fall in the value of CRP for treatment in outpatient conditions and  $73.16 \pm 26.75$  (%) in the hospital or pediatrics clinic.

#### Conclusion:

The use of monitoring CRP (first and control after 3 to 4 days) for pneumonia in children should be only conditionally a gold standard of diagnosis of the unavoidable physical examination for pediatric monitoring pneumonia and successful treatment such as guidelines for Canton Sarajevo and the whole country.

#### Key Words:

Pneumonia, Kids, CRP, Treatment.

### Tobacco Exposure In Relation To RRI and BA Among Children

Afraa Talal Ali Barzanji, MD, Prof. Ahmed Mandil, Prof. Muslim Alsaadi, Randa Nooh, MD, Amr Moustafa, MD

#### Background:

Respiratory infections were found to trigger the development of bronchial asthma (BA). Second hand smoke (SHS) exposure affects the respiratory health of children. This research aimed to assess the association between household tobacco smoke and recurrent respiratory infections.

#### Research Methodology:

A case control study was carried out in paediatric outpatient clinics in Riyadh. A questionnaire was specially used for the purpose of data collection in the study, in addition to cotinine measurement. Data analysis was done using SPSS software.

#### Results:

- History of household tobacco exposure was associated with higher risk of recurrent respiratory tract infections (RRI) ( $p=0.026$ ).
- History of RRI had an association with BA: OR (95% CI) 1.6 (1.057, 2.589).
- Rank of the child among his siblings, having no siblings, and Crowding were factors associated with BA ( $p=0.004$ ,  $p=0.001$ ,  $p=0.048$ ).
- Children exposure to smoking during relatives' visits was significantly associated with BA ( $p=.004$ ).
- The proportion of children exposed to tobacco through the use of questionnaire was much lower than that by cotinine level.

#### Conclusion:

This study revealed a relation between exposure to tobacco and RRI among children. Tobacco exposure was underestimated by the use of questionnaire. There was gene environmental interaction.

#### Recommendations:

- Parents to give up smoking to protect children from RRI.
- This study could guide further researches in the future, such as using cotinine to measure compliance with an educational program for cessation/prevention of smoking.
- Avoid crowding as possible.

### Serum Bilirubin Level in Patients with COPD during Acute Exacerbation

Ali Ali Okaab, Reda Mohamed EL Badawy, Ahmed Abd EL Sadek Mohamad, Mohamed Abd Allah Hussien

#### Aim Of The Work:

To study the relationship between serum bilirubin level in patients with chronic obstructive pulmonary disease during exacerbation.

#### Patients and Methods:

Forty patients (37) males and (3) females patients with COPD during exacerbation were admitted to chest department, Benha university hospital were included in this study. All patients were submitted to full history taking general and clinical examination, plain chest x-ray (P.A. and lateral view), Body mass index, Pulmonary function tests (spirometry) before and after bronchodilatation, Electrocardiography, complete blood count, liver function tests, kidney function tests and fasting blood sugar. We excluded patients with any disease that may result in elevation of Serum bilirubin like, hepatic diseases, inflammatory bowel diseases, end-stage renal disease, diabetes mellitus, hypertension, ischemic heart, arthritis, cerebral vascular diseases and any systemic infection or inflammation that could be associated with increased bilirubin level. Also patients were excluded if they had tuberculosis, bronchiectasis and malignancy.

#### Results:

The level of serum total bilirubin was high in COPD patients with acute exacerbation (range = 0.76-1.98 . mean  $\bar{X} \pm SD = 1.32 \pm 0.73$ ), The correlation between FEV1/FVC pre-bronchodilator and total bilirubin was statistically significant. The correlation between serum indirect bilirubin and post-bronchodilator FEV1/FVC was statistically significant. The correlation between serum total bilirubin and smoking index was non-significant.

#### Conclusion:

The bilirubin may be a helpful indicator in exacerbation of COPD and the patient may get useful effect with hyperbilirubinemia.

**Key words:** COPD exacerbation, Serum bilirubin, ventilatory function tests, smoking index.

### Knowledge Of Primary School Teachers About Asthma in Saudi Arabia

AlAhmari, Mohammed, PhD, RRT, CTTS1; AlAhmari, Ayedh, PhD2; ALESSA, Fayez, BSrc1; Bin Saleh, Ahmed, BSrc1; AlAhmari, Mohammed, BSrc1.

#### Objectives:

Asthma is one of the most common chronic respiratory conditions, with an increased prevalence in Saudi Arabia, especially in children (Sobki and Zakzouk 2004, Al-Ghamdi, Mahfouz et al. 2008). The school for children is an important setting, which represents "home" for schoolchildren and teachers are responsible to about rational and safe decisions in case a child suffers from asthma attack (Warner, Gotz et al. 1989).

This study aimed to assess the level of asthma knowledge, confidence in managing children with asthma and other relevant factors associated with knowledge about asthma among primary school teachers.

#### Methods:

Five hundred and fifteen teachers participated from primary male schools in 66 randomly selected schools in the Eastern and Central Provinces of Saudi Arabia. A total of 30-questions relating to knowledge of asthma, 9-questions about confidence in managing children with asthma and other general knowledge questions about asthma education, distance to nearest health facility, and action plan during asthma attack were collected using a validated questionnaire. The responses to the level of knowledge were measured

as "true", "false" and "I don't know", and subsequently converted to percentages. The confidence questions were measured on 10-point interval Likert scale (The highest possible score of 0 would indicate highest confidence and a 10 score indicates lowest confidence).

**Results:**

A total of 515 teachers, all males, responded to the questionnaire, with the mean age ( $\pm$ SD) of 39 $\pm$ 7 years. Overall, only 33.4% of school teachers were able to answer < 50% of the knowledge questions correctly. Seventy-five percent of the teachers showed correct responses that shortness of breathing was a common asthma symptom. However, this rate was 31.4% and 23.5% for wheezing and coughing, respectively. The confidence rate in managing children with asthma was low, with overall rate of 29.3%. Only 23% (504) revealed that the school has an emergency plan during asthma attack. General practitioner (GP) visits to educate about asthma only 12%, while school teachers showed poor reading about asthma, with 41.3%.

**Conclusion:**

This cross-sectional study demonstrates deficiencies in teachers' knowledge of asthma and confidence of dealing with children asthma attacks. Asthma management knowledge should be improved by in-service educational program to improve school teacher's action during attack and to avoid any worse in status before get to medical care providers. There should be an interdisciplinary approach by Ministries of Health and Education in Saudi Arabia for school teachers.

**Video Assisted Mediastinoscope: A Simplified Over View**

**Amr Ahmed Saleh, Abou El Kassem**

**Background:**

Accurate staging and restaging of primary tumor and mediastinal nodes in patients with lung cancer is of significant importance. Mediastinal staging is of paramount importance prior to surgery for non-small-cell lung cancer (NSCLC) to identify patients with N2-disease and sampling from at least three lymph node stations is generally recommended. Mediastinoscopy represents the gold standard for invasive mediastinal staging. We present Egypt first experience in extended wide blade video assisted mediastinoscope.

**Patients and Methods:**

we used a video assisted extended wide blade mediastinoscope. Neck slightly extended a 3 cm incision was done 1 cm above the supra sternal notch and dissection was done till reaching the pre- tracheal fascia, mediastinum was examined and stations 2, 4 and 7 examined.

**Results:**

Between September 2015 to December 2015, 16 patients were registered. Video assisted mediastinoscope was done sampling at least 2 stations, results came out as follows 6 patients with sarcoidosis, 3 patients with reactive inflammatory cells, 4 NSCLC, 1 small cell, 1 thymic carcinoid tumor. No intraoperative complications with only one superficial wound infection

**Conclusion:**

Proper staging of lung cancer represents the basis for any stage-adapted and optimized treatment; Video-assisted mediastinoscopy is safe and useful. It's essential for the diagnosis of sole mediastinal mass, a good method to clarify the pathologic stage of patients with lung cancer, and the only way to get the pathologic diagnosis for some special mediastinal disease.

**Fiber Optic Bronchoscopy In Neonates: Diagnostic And Therapeutic Aspects**

**Prof. Mohammad Ashkan Moslehi, MD**

**Abstract:**

To determine the indications and safety of Fiberoptic Bronchoscopy (FOB) in neonatal intensive care units (NICUs) Diagnostic and therapeutic (FOB) procedures on 80 neonates with respiratory manifestations were reviewed. The major bronchoscopic findings was inflammation, granulation tissue, malacia in 70 patients, mucosal plugging in 50 congenital airway abnormality in 20, TEF in 10, Broncho pleural fistula in 3 and foreign body in 2, full and partial re-expansion was obtained in 50. Positive or negative microbiologic Brochoalveolar lavage fluid results changed treatment in 30 patients. 43 patients were extubated within 24 h after therapeutic procedures (Dilatation, mucosal deplugging, Cryotherapy, etc.). Our data show that FOB is safe and effective in the diagnosis and therapy of neonates with Respiratory manifestations in NICUs and PICUs.

**The Pattern Of Chest Injuries; Analysis Of 275 Cases**

**Mohammed Nasser Aldahmashi**

**Aim:** To investigate the patterns of thoracic injuries and methods used in their management.

**Methods:**

A retrospective descriptive analysis was conducted among 275 cases of chest trauma managed at our hospital over the period 2010-2013.

**Results:**

We present our experience in the management and clinical outcome of 275 consecutive patients with chest trauma associated with 51% (n.140) blunt injuries and 49% (n.135) penetrating injuries. There were 255 male (72.7 %) and 20 female (7.27 %), with average age of 33.0 years. The penetrating injury group consist of 130 (96.3 %) males and 5 (3.7%) were female; among this group there are three patients (1.09%) were sustained direct cardiac injuries. The blunt chest trauma group consist of 89.3 % (n.125) of male patients and 10.7 % (n.15) were female patients. The commonest presenting features were pain (100%), dyspnea (78.57%), hemorrhagic shock 17% and others had associated injuries. The concomitant injuries were 22.18% (n=61); spinal cord 9 (3.27 %), brain injuries 17(6.18%), intraperitoneal injuries 12 (4.36%) were mostly due to penetrating injuries which necessitate thoraco-abdominal approach or CTD and laparotomy, bone fractures 20 (7.27%). The CT, CXR, US, and Echo were the main diagnostic tools used, 95.27 %, 96.72 %, 9.73 %, and 9.33 % respectively. Intercostal tube thoracostomy was required in 130 patients of penetrating trauma (96.29 %) and 35 (25.92 %) patients underwent early thoracotomy for bleeding control and late thoracotomy for retained FB removal and empyema was done for 22 patients (16.29%). CTD was inserted in 107 (76.42%) patient of blunt injuries whereas 33 patients (23.57%) had conservative management and only 4 patients (2.85%) underwent thoracotomy. Mean hospitalization period was 6 days in penetrating trauma group and 7.33 in blunt trauma group. Out of all cases, 94.54% (n. 260) were cured, and the overall mortality was 5.4% (n. 15).

**Conclusion:**

- I conclude that The CTD is the most appropriate methods of treating complicated chest injuries, however the penetrating trauma has higher rate of internal damage that require early intervention to save life, especially for severe or progressive intrathoracic bleeding and cardiac injury.
- Pulmonary contusion and rib fracture are the most common complications in chest trauma, for which the strong painkiller, anti-infection therapy, respiratory care measures and mechanical ventilation are the component of an effective treatment strategy.
- The associated extra thoracic injuries constitute a major prognostic factor in the chest trauma, which is higher rate in blunt trauma.

**Key words:** Chest Trauma, Chest Tube Drainage, Thoracotomy.

**An Unusual Presentation of Penetrating Cardiac Injuries; Early Surgery is The Key to 3 Surviving Patients**

**Mohammed Nasser Aldahmashi**

**Background:**

The incidence of Penetrating trauma of the heart for various reasons has increased. The aim of this article is to demonstrate the role of accurate preoperative imaging and emergent surgery in the good outcome of these rare cases.

**Patients and Methods:**

This article describes the clinical presentation and operative findings in a case series of three male patients who sustained the penetrating injury to the heart by high energy-transfer gunshot wounds (GSWs) and the stab wound. They were evaluated regarding the time, state of presentation and the management that were done. The Three patients were presented to ER within 30, 60 min and 3hr in case 3, 1 and 2 respectively. The presentation state was hypotensive shock and cardiac tamponade after bullet injuries in Case 1 & 2 and knife stab injury in case 3. They were managed emergently by resuscitation and chest tube drainage (CTD) then urgent diagnostic imaging followed by anterolateral thoracotomy in the fifth intercostal space and pericardiectomy, a hemopericardium drained, and control of cardiac bleeding by direct suture of cardiac wall tear. CTD insertion then closure of thoracotomy wound. Images were made during the patient's recovery.

**Results:**

The Right ventricle was the injured in all cases. In case 1, the bullet was retrograde moved to right hepatic vein thus its removal was impossible, but in case 2 it was removed, but the surprising thing was the heart injury made without a tear of the pericardium. In case 3 the heart was transfixed by stab weapon. None of the 3 patients suffered damage to the coronary arteries.

Although pulmonary injuries are the most common associated injuries, only one patient (case2) require right middle lobe direct repair. The Postoperative course was uneventful in all patients apart of transient hepatic dysfunction in case 1. There were no cases of mortality or late morbidity in any of the patients.

**Conclusion:**

Early diagnosis and surgical management led to a successful outcome in our patients. The site of injury, the magnitude of cardiac injury and the size of the pericardial tear were the main prognostic factors that affect cardiac injury outcome. A non-invasive method including transthoracic echocardiography and computed tomography can be used successfully to diagnose penetrating cardiac injury.

**Key words:** Cardiac injury / Tamponade / Stabbing

### Evaluation of Hands-On Teaching Given To Endoscopy Nurses On Handling Of EBUS-TBNA Needle

Syed Mohammad Tariq, MD

**Aim:** Prior to initiating EBUS-TBNA service in our hospital, we trained 12 endoscopy nurses in safe handling of the EBUS-TBNA needle. The impact of these training sessions was formally assessed.

**Methods and Results:**

We ran three half-hour hands-on training sessions on EBUS-TBNA needle (Cook, USA). The trainer demonstrated the 8 sequential steps in preparing the needle and sampling a mediastinal lymph node, and 5 steps to safely withdraw the needle and transfer the sample into the sampling pot. Each nurse then had three or more turns to perform these steps, with immediate feedback if they missed or struggled with any step. The session ended with a 5-10 minute group discussion. Seven nurses completed a questionnaire before and after the session, exploring whether it reduced their anxiety on specific issues (missing a step, needle-stick injury to self or others, damaging the bronchoscope, harming the patient by accidentally puncturing a mediastinal blood vessel, causing a pneumothorax, or introducing infection during sampling, and losing the sample during its transfer into the pot. Their responses were graded on a 5-point Likert scale (1=not concerned at all, and 5=extremely concerned). There was a mean reduction of 1 point or more for each of these concerns, with greatest gains in reducing anxiety on performing the sequential steps, harming the patient, and losing the sample (mean reduction 1.6, 2.1 and 1.7 points respectively). The nurses gained a lot of confidence and some wished for a refresher session every 3-6 months.

**Conclusion:**

Training sessions to endoscopy nurses on EBUS-TBNA needle handling prepared them well to assist an EBUS bronchoscopy and significantly reduced their anxieties. We acknowledge the need for regular refresher sessions to maintain our nurses' skill levels.

### Inhalation of Vasoactive Intestinal Peptide for the Treatment Of Sarcoidosis

Dorian Bevec, Stefan Kern, Joachim MÄller-Quernheim

**Content:**

Sarcoidosis is an autoaggressive disease mainly affecting the lung and airways, but virtually every organ can be involved. Sarcoidosis leads to constitutional nonspecific manifestations like cough, fatigue and exertional dyspnea, for which an immunosuppressive therapy is not recommended and no treatment options exist. In clinical practice, cough in chronic Sarcoidosis without mandatory indications for corticosteroid therapy is frequently the only reason to reintroduce prednisone therapy with the sole aim to suppress cough accepting negative adverse effects. Thus, a cough therapy would be a major achievement since it would also avoid corticosteroid therapy out of despair and prevent its negative side effects. Preventing occupational disability or career handicaps would have a great socioeconomic impact for the individual patient and the society at large.

Vasoactive Intestinal Peptide (VIP- Avipstadil) is an abundant biologically active endogenous human peptide acting as a ligand on specific G-protein coupled transmembrane receptors. It is one of the signal molecules of the neuroendocrine-immune network comprising anti-proliferative, anti-inflammatory, and immune-regulatory features. Its predominant biological activity is performed in the lungs, and a vast body of experimental, pharmacological and clinical evidence suggests VIP to be an attractive candidate for treatment of Sarcoidosis. We have decided to use inhalation of VIP as the route of administration for Sarcoidosis patients, as inhaled drugs act quickly, minimize undesired negative side effects, avoid the hepatic first-pass metabolism, and act locally. As the

size variability among adult lungs is smaller than the overall body size variability, the dosing reliability is also improved when inhaling. We have performed 32 preclinical pharmacological and toxicological tests with excellent safety outcome allowing entering clinical trials in Sarcoidosis. A phase II trial in 20 Sarcoidosis patients demonstrated a striking suppression of inflammatory mechanisms of the lung, in combination with amelioration of cough and of exertional dyspnea. The inhalation of VIP induces an increase of immune-regulatory T-cells and these cells dampen inflammatory mechanisms in the bronchial mucosa. At present, VIP is the only known drug suppressing Sarcoidosis-associated cough with almost no side effects. As the application of VIP might considerably improve patient's quality of life, we are currently preparing a study with VIP for regulatory approval in Sarcoidosis.

### Chewing Tobacco And Non Small Cell Lung Cancer In Algerian Population

Houda Jamous, MD, Taha Filali, PhD

**Background and Objective:**

Chewing tobacco, locally called "chemma" or "nuffa" is practiced by 11.6% of Algerian men and 4% of country women. Users put a wad of it between their cheek and gum and hold it there, sometimes for hours at a time, unwanted juices are then expectorated (spat), but addicted users may tend to swallow some of it. Chewing tobacco is known to increase the risk of oral, esophageal and pancreatic cancers. Our study describes the effect of chewing tobacco on patients with non-small cell lung cancer (NSCLC)

**Methods:**

A retrospective study of all NSCLC patients managed between January 2012 and December 2013, in an Algerian cancer care center, with a feedback of one year.

**Results:**

We identified 152 patients with NSCLC, 126 (83%) were tobacco users; 43 (34%) were chewers, 21 (16.6%) chewers only, 22 (17.4%) chewers and smokers, and 83 (66%) were smokers only. Chewer patients were 3 categories: patients who had no idea it was a kind of tobacco, patients who started chewing in order to help them in weaning cigarettes and patients who were very addicted to tobacco to use it in both forms. Of the 43 chewers, only 5 patients have weaned from chewing tobacco at cancer diagnosis, the others didn't even after diagnosis, and 8 patients converted from smokers to chewers. Median age among patients who used chewing tobacco was 57 years( 36-73), 1 female and 42 males. The most common presenting symptoms were cough (29.4%), chest pain (23.5%), and hemoptysis (20.6%). Adenocarcinoma represented 67.6%, squamous cell carcinoma 23.5%, adenosquamous carcinoma 6%, large cell carcinoma 2.9%. Most of the patients had an advanced stage disease; 74% stage IV, 6% stage IIIB, 15.6% stage IIIA. Three patients underwent surgical therapy, 1 lobectomy, 2 pneumonectomy, and 3 needed palliative radiotherapy. First line platinum based chemotherapy was administered to 61.8% of the patients, with an appropriate PS and no medical contra-indication. Overall response rate was 14.7% and overall disease control was 20.6%, median time to follow up was 6 months, in chewers only it was 4 months, in both cigarettes and spit tobacco users it didn't exceed 2.5 months, while it reached 13 months in smokers only (who were 75% stage IV), 1 year survival was 23.5%, 2 years survival was 5.9%, in patients both smokers and chewers 1 year survival was 5.9%.

**Conclusion:**

Chewer patients with NSCLC presented common symptoms, at advanced stages, and majority had an adenocarcinoma subtype. Unfortunately, most of the chewer do not quit this deadly habit, by ignorance or by addiction and dependence. However, they had response rates to the conventional chemotherapy comparable with other NSCLC categories, they had a poorer chance of a long survival. A public campaign to increase the awareness about the risk of all tobacco products including smokeless tobacco is needed.

### Role of Chest Ultrasonography in Prognosis of Community-Acquired Pneumonia

Muhammed Anas A, MD, Rennis Davis K, MD, Robert Ambookken, MD, E V Krishnakumar, MD, Thomas Vadakkan D, MD

**Background:**

Community-acquired pneumonia (CAP) is one of the commonest diseases plaguing the human race, affecting approximately 450 million people per year. Despite that, pneumonia can be diagnosed by history and physical examination findings; diagnosis has recently become highly dependent on imaging. Chest ultrasonography has shown a growing interest during the last few years in the diagnosis of pneumothorax, pneumonias, or pulmonary contusions. In recent years development of lung ultrasound is based on new applications and discovery of the significance of sonographic artefacts (BLUE Protocol). The ultrasonic features of pneumonia enclose a hypochoic area of varying size and shape with irregular and serrated margins together with a heterogeneous echotexture. In addition, pneumonia typically reveals an air bronchogram (multiple lentil-sized echoes within the lesion) and free breath dependent motion of the lesion.

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**Objectives :**

To assess the ability of bedside chest ultrasonography (USG) in prognosis of Community-acquired pneumonia (CAP) patients and to compare with Pneumonia severity index (PSI) score & conventional chest radiograph (CXR).

**Methods :**

This was a prospective observational study during a time period of one year. In patients who get admitted with history and examination findings suggestive of community-acquired pneumonia, PSI scoring determined and CXR was taken at the time of presentation. Chest physician performed the thoracic ultrasound examination. PSI scoring, CXR & USG repeated on third day and at the time of final outcome (recovery or mechanical ventilatory assistance) for all the cases to assess usefulness of different modalities in assessing the prognosis. Diagnosis at hospital discharge was taken as the reference standard.

**Results:**

CAP was diagnosed and followed-up in 100 patients. Their mean age was  $57\pm 17$  years, with male predominance (59%) and 48 % were smokers. Cough was the most common presentation (98%). Diabetes and hypertension was the most frequent comorbidities (30%). During admission 52% patients in PSI class 5. Mechanical ventilatory supports were used in 8 patients. These all 8 patients with worsening of pneumonia in class 5 during admission. CXR had consolidation in all the patients during the time of admission predominantly involving lower zone. USG showed features of consolidation in 92% patients, predominantly involving posterior & lower lateral areas. Of patients with sonographically detected pneumonia, dynamic air bronchogram was present. Hepatisation of lung tissue detected in 30% and irregular & serrated margins in 43% of patients. Pleural effusion was evident in 29% of patients by USG, but only 13% by CXR. Disease remission was also demonstrated sonographically. The proportion of patients with an air bronchogram decreased from 92% to 39% of patients during discharge. Correlation between USG, CXR and PSI score were analysed using Spearman's rho rank correlation (r). A significant correlation between USG and PSI score was found (on day1  $r=0.35$ , on day3  $r=0.43$ , & on final day  $r=0.25$ ) which were significant at 0.01 level. A significant correlation was also found between USG and CXR (on day1  $r=0.81$ , on day3  $r=0.81$  & on final day  $r=0.74$ ) which were significant at 0.01 level.

**Conclusion:**

This study supports the routine use of chest-ultrasound in prognostic evaluation of community acquired pneumonia patients, as it is bedside real time, reliable, rapid, and non-invasive technique. Sonographic follow-up of pneumonia allows for rapid therapeutic decision. Noninvasivity is a striking quality of this technique, especially concerning its use in children, pregnant women for the follow-up of lung lesions. Radiation exposures on serial CXR can further be avoided if an alternative tool like USG is available bedside. We hope in the future an add on USG probe to our stethoscope will yield better results in the management of pneumonia and other lung diseases.

**Pleural Multicystic Mesothelial Proliferation**

Hatice Sahin, Ahmet Karsigil, Perihan Ozlem Ulutas, Esra Yazar

**Background:**

Multicystic mesothelial proliferation is a rare disease which is usually seen in abdominal region (1). Mesothelial cysts are fluid-filled sacs lined by mesothelial cells (2). They are usually unilocular and can develop in various sites (3-7), but few cases of multicystic mesothelial cysts in the mediastinum have been reported (8-11). Mesothelial cystic are classified as pleuropericardial, pleural, simple mesothelial and lymphaginous (12). Pleural multicystic mesothelial proliferation (PMMP) seen very rarely. The first case of pleural multicystic mesothelial proliferation was described by Ball in 1990 PMMP is determined by coincidence and usually developed asymptomatic presentation. In this paper, we present a 37-year-old woman with chest pain in whom a cyst was detected by routine chest X-ray (13, 14).

**Case Report:**

A 37-year-old female patient arrive the outpatient clinic with severe chest pain and dyspnea. She has familial mediterranean fever (FMF) in her medical history. There is decreased respiration sound on left hemithorax lower zone. The other physical examination, blood and biochemical investigation of the patient are normal. In chest X-ray well-defined cystic mass in left lower zone was detected (Figure 1). In thorax computed tomography, localised subpulmonic localised pleural effusion 50 mm in diameter is reported which is compatible with left lung lower lobe basal segment (Figure 2). Because there is no regression in cyst dimensions with antibiotic therapy and observation, thought of hydatid cyst cystectomy is done. Pathologic diagnosis is multicystic mesothelial proliferation and in immunohistochemical staining Calretinin (+), Pancytokeratin (+), ER (-), PR (-) and Ber EP4 (-) Ki-67 proliferation index is approximately 3%. Microscopy showed multiple cystic spaces of varying sizes and shapes, seperated by hyalinized connective tissue and lined by a single layer of flattened to cuboidal mesothelial cells (Figure 3). Some focal areas of reactive proliferative changes of mesothelial cells were also noted. The stroma showed fibrosis, hyalinization, focal oedema and chronic inflammation and inflamed granulation tissue. Many hemosiderin-laden macrophages were seen in the cyst lumens and stroma. The cut surface demonstrated multiple clear, liquid fluid-filled cysts. Immunohistochemically, the cyst lining epithelium was positive for calretinin and cytokeratin (Figure 4) and negative for carcinoembryonic antigen (CEA), CD31 and thyroid transcription factor-1 (TTF-1). No atypia, necrosis and mitotic activity were noted. The Ki-67 proliferating index of mesothelial cells was <3%.

**Discussion:**

Mesothelial cysts may be found on, or adjacent to serous membranes throught the body and are infrequently encountered in

the thorax (15). There is no adequate literature about the PMMP which is benign or malignant. Etiology of PMMP is not known. Therefore, definition of PMMP done histologically (1,16, 17). PMMP can be confused with malignancy and due to the pleural effusions, it can be diagnosed, frequently, at the end of the clinical research (16). These type of radiological appearance can also be confused with hydatid cyst in clinical practice radiologically. They are typically located in the anterior mediastinum, in the right cardiophrenic angle in 51%–70% of cases, and in the left cardiophrenic angle in 22%–38% of cases (18). The pericardial or the other mediastinum mesothelial proliferation case is separated from PMMP via having unilocular structure and connective tissue and thought as mesothelial cyst (11). The etiology of this disease is not known yet. However, in the etiology, unknown fibers and dusts generate inflammation mediators and mechanical injury in mesothelial cells and causes hyperplasic and neoplastic changes (11). As a result, mesothelial cysts should be kept on mind in the differential diagnosis of intrathoracic cysts.

Figure 3. H&E showing variable sized cystic spaces seperated by hyalinized (a, x40) and oedematous (b, x10) connective tissue. Cyst lining by single layer of flattened to cuboidal mesothelial cells (c, 40x). Figure 4. Immunohistochemical staining of the cyst lining epithelium showing positive staining for calretinin (a), cytokeratin (b) (5x).

**The Prevalence and Associated Risk Factors of Restless Legs Syndrome Among Saudi Adults**

Fares Aljhdali, Nahid Sherbin, Anwar Ahmed, Abdulhamid Fatani, Khalid Al-Otaibi, Yosra Z. Ali, Salim Baharoon, Hamdan Al-Jahdali

**Content:**

The aim of this cross-sectional study was to determine the prevalence, risk factors, other associated sleep disorders and commodities of Restless Legs Syndrome (RLS) among a sample of Saudis population. The diagnosis of RLS was based on the four criteria designated by the International Restless Legs Syndrome Study Group (IRLSSG). Of 2,095 participants, the average age of the sample was 42.3 (+/-15.5), and 848 (40.7%) were females. The prevalence of RLS was 14.7% with 95% confidence intervals (CI) of 13.3% to 16.3%. The presence of RLS was higher in males than females (16.3% in males vs. 12.5% in females,  $P=0.016$ ). Risk factor for RLS was smoking ( $P=0.002$ ), depression  $P=0.001$ , short sleep duration ( $P=0.005$ ), hyperlipidemia ( $P=0.013$ ), poor sleep quality ( $P=0.001$ ), and high risk for sleep apnea ( $P=0.001$ ). The prevalence of RLS was not affected by various age groups (14.1% in the young age group (18-29 years), 15.9% in the middle-age group (30-60), and 11.7% in the elderly (over 60),  $P=0.139$ ). Among participants with RLS, 20.8% reported severe RLS, 30.7% reported moderate RLS, and 48.5% reported mild RLS. Using the multivariate logistic regression model we found that smoking (aOR=1.686; 95% CI: 1.199-2.372;  $P=0.003$ ), short sleep duration (aOR=1.568; 95% CI: 1.024-2.400;  $P=0.039$ ), poor sleep quality (aOR=1.969; 95% CI: 1.236-3.139;  $P=0.004$ ), and high risk of sleep apnea (aOR=1.598; 95% CI: 1.113-2.295;  $P=0.011$ ) were all significantly associated with the presence of RLS

**Symptoms of Excessive Daytime Sleepiness and Risk for Obstructive Sleep Apnea Among Liver Cirrhosis Patients**

Al-Jahdali Fares, Al Enezi Abdullah, Anwar Ahmed, Al-Harbi Abdullah, Baharoon Salim, Aljumah Abdulrahman, Mohd Khan, Abdullah Khaleid, Al-Jahdali H

**Introduction:**

There are limited studies of sleep disturbance among patients with liver cirrhosis. This study aims to estimate the risk of Obstructive Sleep Apnea (OSA) and the presence of excessive daytime sleepiness (EDS) in liver cirrhosis patients.

**Methods:**

A cross-sectional study enrolled 200 stable patients with confirmed liver cirrhosis followed at KAMC. The primary physicians identified all patients with confirmed diagnosis of liver cirrhosis and classified them according to the severity of liver cirrhosis based on the Child-Pugh scores (CPS). The diagnosis of liver cirrhosis was based on liver radiological studies, liver biopsy when available and compatible clinical data as per the diagnosis of hepatologist who refer the case for study. We used validated Arabic version of Berlin Questionnaire (BQ) to assess the presence of risk of OSA among participants. We also used validated Arabic version of Epworth sleepiness scale (ESS) to assess daytime sleepiness. A score of 11 or more (i.e.  $ESS > 10$ ) is considered EDS. In addition to we gathered information about demographic data and information pertinent to liver cirrhosis such as underlying cause of liver cirrhosis, and severity of liver cirrhosis based on Child-Pugh scores.

**Results:**

We enrolled 200 patients with liver cirrhosis, 57.5% were male, Hepatitis-C (HP-C) was frequent (60.2%) cause of liver cirrhosis. Of the patients with liver cirrhosis, EDS was reported in 29.5% and. High risk for OSA in 42.5%. The presence of both EDS and OSA was reported by 13.5%. Liver cirrhosis patients due to HPC were significantly more likely to report EDS symptoms (60.2%) than HP-B (19.4%), and other cause of liver cirrhosis (20.4%) ( $p$ -value = 0.009). Liver cirrhosis patients with DM were significantly more likely to report high risk for OSA than those without DM (57.4% and 36.5%, respectively,  $p$ -value = 0.006). The presence of both EDS and high risk for OSA experienced was associated with insomnia (19.3% and 9.6%, respectively,  $p$ -value = 0.049). CTP class B was significantly less likely to report EDS and high risk for OSA compared with CTP class A (aOR, 0.30; 95% CI, 0.116-0.980).

**Conclusion:**

Our study showed that there is a significant sleep disturbance among cirrhotic patients specially with those who had cirrhosis caused by Hepatitis "C".

**Primary Spontaneous Pneumothorax; Single Centre Experience**

Yasser Aljehani, Feras Almajid, Rabia Niaz

**Background:**

Primary spontaneous pneumothorax (PSP) occurs in patients with no apparent underlying lung disease. PSP typically occurs in tall, thin subjects. Other risk factors include male gender and cigarette smoking. Patients with small pneumothorax (3cm apical separation) should undergo an intervention to re-expand the lung. Video-assisted thoracoscopic surgery (VATS) is now the most commonly used surgical procedure. The aim of this study is to identify the risk factors associated with PSP in our population and to evaluate the effectiveness of the surgical management for this disease.

**Methodology:**

This study is a retrospective chart review study including all patients presented with PSP and managed at a University hospital in our region over a period of 10 years from 1st January 2005 till 31st December 2014. Data regarding age, gender, marital status, body physique, smoking, side of the PSP, the surgical management of the disease and rate of recurrent disease were collected and analyzed using SPSS version 20.

**Result:**

One hundred fifty one (151) patients with PSP were included in the study. Majority of the patients were men (98.7%), single (82.8%), and citizens (88.7%) with mean age of  $24 \pm 6$  years. Most of the patients were tall with mean height  $171 \pm 8$  cm. Their mean BMI were  $19.2 \pm 3.8$ . Smoking history was present in 62% of the patients. Thoracostomy tube was inserted in majority of the cases (97.4%) with 80% of the patients underwent surgical intervention through thoracotomy (10.6%), axillary thoracotomy (17.2%) or video assisted thoracoscopic surgery "VATS" (52.3%) approach. Ten patients (6.6%) had ipsilateral recurrence of PSP.

**Conclusion:**

Being male, tall and smoker are considered to be risk factors for PSP. Most of the patients were successfully treated with minimally invasive surgery using VATS approach with a significant lower recurrence rate if exploration done after the first episode of PSP.

**An Isolated Tubercular Adrenal Mass with Adrenal Insufficiency: A Rare Presentation**

Gyan Bharti, Praveen Pandey, Nitin Rathi

**Case Presentation:**

A 61 yrs old female, known case of diabetes mellitus and hypothyroidism, presented with complaints of recurrent vomiting with fever, diarrhoea and generalized weakness since last 15-20 days. She also had history of significant weight loss and skin pigmentation. Her CECT abdomen showed right adrenal mass. Her PET-CT scan whole body was done which revealed soft tissue lesion on right adrenal gland. There was no FDG uptake anywhere else. There was no significant family history or contacts specifically exposure to tuberculosis. There was no personal history of smoking, alcohol consumption or drug abuse. CT-guided FNAC of right adrenal mass done which showed necrotizing granulomatous inflammation suggestive of Tuberculosis. Her serum cortisol level was significantly low (0.96 ug/dl) and serum ACTH level was significantly high (1188 pg/mL) which was suggestive of adrenal insufficiency secondary to adrenal tuberculosis. She was started on Anti-tubercular treatment (HRZE) with oral corticosteroid (Prednisolone and fludrocortisone) in view of adrenal insufficiency. She responded well with the treatment became afebrile and her appetite was improved after 4 weeks of treatment.

**Background:**

Primary tubercular adrenalitis is a rare clinical entity and only few cases are reported in the literature. In a systematic review, only one case of Primary tubercular adrenalitis out of 370 reports of extrapulmonary TB was observed during a period of 10 years<sup>1</sup>. Adrenal tubercular infection has also been reported as cause of sudden death and as a cause of fever of unknown origin<sup>2</sup>. The diagnosis was often made on autopsy or after adrenalectomy. In the developing world, however, tuberculosis continues to account for about 20-30% of cases of Addison's disease<sup>3</sup>. The clinical presentation of primary adrenal insufficiency is variable, and an underlying infectious etiology can further obscure the manifestations. The most frequent manifestations are weakness, fatigue, anorexia, weight loss, nausea, vomiting, hypotension, and skin hyperpigmentation. Mycobacterium tuberculosis complex spreads to the adrenal glands hematogenously. Clinical manifestations may take years to become apparent, and asymptomatic infection is not uncommon. Adrenal involvement was found in 6% of patients with active tuberculosis in an autopsy series<sup>4</sup>. Patients with adrenal insufficiency should be treated with hydrocortisone (or cortisone acetate if hydrocortisone is not available), which is the most physiological option for glucocorticoid replacement. The recommended daily hydrocortisone dose is 10-12 mg/m<sup>2</sup>; it can be given in two to three doses, with administration of half to two-thirds of the total daily dose in the morning.

**Effect of Statin Therapy in Patients with Chronic Obstructive Airway Disease**

Prof. Hamdy Ali Mohammadien, MD, Prof. Sausazan Salama, MD, Aza Mahmoud Ahmad, MD

**Background:**

Statins possess pleiotropic effects in addition to their conventional lipid-lowering properties including anti-inflammatory, antioxidant, antithrombotic and vascular function-restoring actions. The anti-inflammatory effects of statins on both pulmonary and systemic inflammations could have substantial benefits in patients with COPD due to inhibition of cytokine production and neutrophil infiltration into the lung, inhibition of small airway fibrosis and irreversible airway limitations

**Purpose:**

To evaluate the effect of daily used statins on inflammatory markers (CRP, IL6, neutrophil count), antioxidant enzymes (Superoxide dismutase, Catalase), Nitric oxide, pulmonary function tests, arterial blood gases, frequency of hospitalization for AECOPD and number of intensive care unit ICU admissions in COPD patients.

**Methods:**

One hundred COPD patients were included. The patients were allocated into two groups:

- 1-Group 1: Fifty COPD patients who had statins in their treatment, atorvastatin, in a dose of 20mg once daily orally for one year.
- 2-Group 2: Fifty COPD patients who are not receiving statins as control group. PFTs, ABG, CRP, IL6, Superoxide dismutase (SOD), Catalase, Nitric oxide, Lipid profile, CBC & liver & kidney function tests were performed in all patients before, 6 months & one year after initiation of therapy.

**Results:**

100 COPD patients (84% male) with mean age  $62.1 \pm 1$  (ranged 40-90 years) were included. Pulmonary function & PaO<sub>2</sub> significantly increased & PaCO<sub>2</sub> decreased in statin users compared with non-statin users (0.001, 0.004 & 0.02). CRP was significantly higher in statin users compared to non-statin users (0.001) at baseline, but after statin therapy there is highly significant decrease in serum CRP & IL6. Plasma levels of catalase, SOD & NO were significantly higher in statin non users than statin users (0.001) (at baseline) but after 12 ms of statin therapy there is highly significant increase in plasma levels of SOD, catalase & NO (0.001). There is highly significant decrease in neutrophil count after 6 & 12 ms of statin therapy (0.002 & 0.001). Also after 12 ms of therapy there is significant decrease in ICU admission (0.03) and highly significant decrease in hospital admission (0.001). No mortality in statin users but 4% mortality in non-users.

**Conclusion:**

Treatment with statins may reduce lung function decline, hospital & ICU admission, also reduced inflammatory markers & increased NO, antioxidant enzymes in COPD patients.

**Clinical implications:**

Statins may be used adjunct therapy in COPD patients as a result of its anti-inflammatory effect.

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### Common Aeroallergens and Food Allergens Seen Among Allergic Children

Hanan Sharif, Rasha Albarazi, Elrasheed Hassan, Hadeel Awad

#### Background:

The aim of this study is to determine the most common aeroallergen and food allergen via the skin prick test.

#### Method:

The study design was retrospective cross-sectional. Data was collected from the results of 155 patients that have undergone skin prick test during 2014-2015 in the allergy clinic at the University Hospital of Sharjah. Skin prick tests were performed with 15 aeroallergens selected based on the most common identifiable allergens in the region, and 27 individual food allergens according to patient history. A mean wheal diameter of at least 3mm greater than the negative control was taken as positive. Analysis was conducted via SPSS version 22

#### Results:

The patient's ages ranged from 2 months to 14 years (89 males, 66 females). From our study population 35.5% had allergic rhinitis, 16.8% had asthma symptom, 25.2% had both asthma and allergic rhinitis, 10.3% had atopic dermatitis, and 12.3% had food allergy. The most prevalent aeroallergens were Dermatophagoides pteronyssinus (38.7%), Dermatophagoides farinae (38.1%), Alternaria alternata (26.5%), Phleum prat timothy (22.6%), cladosprium (20.6%), aspergillus mix (18.1%), feather mix (17.4%), Russian thistle (15.5%), and cat fur (14.2%) cockroach (8.4%). Most common food allergens were Cow's milk (43.6%), egg (43.6%), peanut (38.5%), and almond (28.2%). Common allergens in the patients with different symptoms of atopic disorders were as follows: Allergic rhinitis (D.pteronyssinus), Asthma (D.pteronyssinus), atopic dermatitis (D.farinae, egg)

#### Conclusion:

In conclusion, the most common aeroallergens identified based on skin prick test in the allergy clinic in the University Hospital of Sharjah, was house dust mites in all allergic diseases followed by molds, which corresponds with the results of similar studies conducted in our region. Molds' sensitivity were seen more in allergic rhinitis than asthma. Identifying allergens plays an important role in management, giving appropriate allergen avoidance, and possible immunotherapy. Common allergic disease among our population was allergic rhinitis. Food allergy was also detected in our population. Data on food allergy scarce in UAE, further studies looking at food allergy prevalence is needed.

### Stereotactic Body Radiotherapy (SBRT) or Surgery In Early Stage (I & II) Non-Small Cell Lung Cancer (NSCLC)

Gunnar Hillerdal, Olov Andersson, Karl-Gustav Kölbeck, Rolf Lewensohn, Pia Baumann, Per Bergman, Per Liv, Eva Brandén

#### Introduction:

For patients with NSCLC clinical stages I and II disease with no medical contraindications, surgery is treatment of choice showing 5-year survival rates of about 60–80% for stage I and 40–50% for stage II, respectively. However, for patients who are medically or technically unfit for surgery and for patients refusing surgery, SBRT is an alternative with local control rates >90% at 3 years.

#### Material and Methods:

Medical journals in all patients with stage I or II NSCLC who were underwent surgery and treated with SBRT at the Department of oncology or thoracic surgery, Karolinska University Hospital, Sweden from 2003 to 2010 were retrospectively reviewed.

#### Results:

In all, 267 (74.8%) underwent surgery and 90 (25.28%) were treated with SBRT. Mean, median and range of age among the surgery group was 69.2, 70.0 and 41-85 years, while in the SBRT group, these figures were 77.6, 79.0 and 52-90 years. The difference in age between the groups was significant (pn elderly group with so many comorbidities and a poor PS indicates that SBRT has been of value.

### Lingular-Sparing Left Upper Lobectomy For Lung Cancer in A 97 Year Old Man

Henrietta Wilson, Michael Ghosh-Dasdidar and Karen Harrison-Phipps

#### Objectives:

Current trends in increased life-expectancy and lung cancer incidence have led to a growing number of elderly patients with non-small cell lung cancer. In view of this, clinicians are likely to be facing more difficult decisions as to the management of lung cancer in elderly patients. Surgical resection remains the treatment of choice for early lung cancer in fit candidates. Advances in pre and post-operative care along with improved surgical techniques such as VATS pulmonary resection and sub-lobar anatomic resection has allowed an increase in surgical management in an aging population. Here we report the case of a 97 year old man with non-small cell lung cancer successfully treated with anatomical pulmonary resection. To the best of our knowledge this is the oldest individual reported to have undergone this lung cancer surgery.

#### Case Report:

A 97 year old gentleman presented with a cough and was found to have an abnormal shadow on chest x-ray. Subsequent investigation confirmed a squamous cell carcinoma stage T2b N0 M0 of the left upper lobe. In view of this, the patient was referred for surgical assessment. The patient was a fit and active gentleman with a good exercise tolerance of a half mile without any shortness of breath and at least one flight of stairs. He had a past medical history of stroke four years ago with no significant residual neurology. Pulmonary function tests were well preserved with an FEV1 of 1.75L (75% predicted) and an FVC of 2.5L (96% predicted). Following counselling regarding management options and the risks involved the patient opted for surgical resection. A left lingular-sparing upper lobectomy was performed via a standard posterolateral thoracotomy incision. Postoperative airleak was prolonged with drain removal on day 10 without subsequent complication. The postoperative course was otherwise unremarkable and he was discharged home on day 14. The patient was reviewed in the outpatient clinic 6 weeks following surgery at which time he had continued to make a good recovery.

#### Conclusion:

Lung Cancer is the leading cause of cancer death in both men and women in the UK. In the past there has been a trend towards nonsurgical management or a less aggressive approach in elderly patients. A number of recent studies have demonstrated that anatomical resection can be performed with acceptable risk in octogenarians who have a good performance status and preserved respiratory and cardiac function. Here we present successful anatomical pulmonary resection for NSCLC in a 97 year old with minimal morbidity. Surgical resection remains the gold-standard of care for curative intent in early lung cancers and should not be precluded based on age alone.

### Lung Cancer Survival in the United Kingdom: A Ten Year Experience

Henrietta Wilson and Emma Beddow

#### Objectives:

Lung Cancer services in the UK have recently come under scrutiny following the publication of two large studies which compared cancer survival in developed countries. These studies have reported poor cancer survival in England when compared to other developed countries. The aim of this project was to assess lung cancer survival in patients with non-small cell lung cancer (NSCLC) undergoing surgical resection in our institution. Through this we hope to establish whether the management of patients with curative disease is inferior or whether other key factors, such as stage and timing of diagnosis, have led to worse outcomes.

#### Methods:

A database search was performed to identify all patients undergoing lobectomy, bilobectomy or pneumonectomy for NSCLC between January 2003 and 2013. Information regarding patient demographics and histological stage was recorded. NHS number tracing was used to obtain patient status at follow-up. Survival data at 1, 3, 5 and 10 years was plotted using the Kaplan-Meier method.

#### Results:

663 patients were identified matching the study criteria (M:F = 381:282). Within the cohort, 277 patients had stage 1 disease, 268 stage 2 disease, 114 stage 3 disease and 4 patients with stage 4 disease. The average age at the time of surgery was comparable between the groups (mean 67 years). Five year survival in patients with stage 1, 2 and 3 disease was 81%, 43% and 22% respectively. For early disease, stage 1a, 5 year survival was even better at 86%.

#### Conclusion:

Cancer survival is an important measure of the effectiveness of both management strategies and healthcare systems. These findings demonstrate that in patients with early, operable lung cancers survival rates within our institution are comparable, and in some cases superior, to other developed countries. However, only a very small number, 12.9% of patients, are diagnosed early enough to undergo surgery. This would suggest that it may not be the treatment provided in the UK that is inferior, but the ability to diagnose lung cancer at an early stage. New proposals with screening of at risk patients may go some way to address this issue.

### Depression and its Associated Factors among Obstructive Sleep Apnea Patients: A Comparative study at King Abdulaziz University Hospital, Jeddah, 2013

Sameerah Musalim Albugami

#### Background:

Obstructive sleep apnea is a common health problem which is associated with multiple consequences of morbidities and mortalities; out of these morbidities; depression is considered the commonest. Previous studies worldwide showed wide range of prevalence of depression among these patients; moreover, risk factors interacting between the two conditions are not well identified; therefore, the current study aimed at finding out the prevalence of depression among obstructive sleep apnea patients and compare it within patients attending other clinics.

**Subjects and Methods:**

All patients of obstructive sleep apnea attending the sleep disorder clinic in King Abdul Aziz University hospital were invited to be enrolled in the study (n=101); and representative sample (n=179) was selected randomly from attendants to other department in the hospital. After ensuring consent, patients were requested to fill a designed questionnaire aimed at assessment of depression. Data were manipulated using SPSS ver.20, in addition to descriptive statistics in the form of frequency distribution and mean with standard deviation; bivariate analysis using Chi Square test, independent sample t test and ANOVA test were used. Multivariate regression was carried out to control for factors associated with both obstructive sleep apnea and depression. P value less than 0.05 was considered as a cut off level for statistical significance.

**Results:**

The prevalence of depression among patients with obstructive sleep apnea accounted for (48.5%) compared to (44.1%) among patients from other clinics; the mean+SD score of the depression scale was significantly higher among OSA patients (12.5+8.6) compared to these from other clinics (10.0+7.2). Previously diagnosed thyroid illnesses were significantly higher among OSA patients (with an OR (2.23; 95% CI:1.19-4.18), in addition to higher frequency of diagnosed chronic diseases that was almost doubled among them with an OR (2.96; 95% CI: 1.77- 4.94) and also the previous occurrence of CVA that was much higher among OSA patients (6.9%) than those from other clinic (1.1%) with an OR (6.55; 95% CI: 1.34 - 32.18). Factors which predict higher depression scores independently after controlling for obstructive sleep apnea were previously diagnosed with depression and previously diagnosed with psychiatric illnesses.

**Conclusion and Recommendations:**

Depression is highly prevalent in patients attending KAUH in general and patients with obstructive sleep apnea in specific; factors associated significantly with obstructive sleep apnea were previously diagnosed chronic diseases, thyroid illnesses and CVA, and factors affecting depression independently were previously diagnosed depression and psychiatric illnesses. It is recommended to use depression assessment scale in all patients attending the sleep disorder clinic as well as applying it on a large scale on patients attending other clinics. Also special attention should be directed to patients with risk factors identified in the study.

### Pulmonary Arterial Hypertension in Saudi Arabia: Patients' Management, Treatment Outcome, and Predictive of Survival. A-Single-Center Experience

Makhdari S, Batubara E, Kashour T, Alnajashi K, Idrees M

**Aims:** The purpose of this study is to present our center's experience in managing patients with pulmonary arterial hypertension. The main objective is to describe patients' management profile and treatment outcome.

**Methods:**

This study presents the results from a single pulmonary hypertension specialized center in Riyadh, Saudi Arabia. Both incidence and referred prevalence cases of pulmonary arterial hypertension are included. We have previously reported the clinical and physiological characteristics at the time of diagnosis for this cohort of patients. In this study, we describe the clinical management and the outcome of therapy in the same cohort, who were prospectively followed for a mean of 22 months.

**Results:**

A total of 107 patients were identified as having pulmonary arterial hypertension as diagnosed by right heart catheterization. At the time of enrollment, 56.1% of patients were in modified NYHA functional class III and 16.8% were in functional class IV. Phosphodiesterase-5 inhibitor was the most commonly used target therapy (82.2%) followed by Endothelin receptors antagonist (74.4%). Only 5 patients (4.7%) were candidate to use calcium channel blockers based on reversibility testing. Seventy-nine patients (73.8 %) received a combination target therapy. Thirty-one patients (28.9%) died during the follow-up period. Modified NYHA functional class III and IV patients had a significantly higher mortality rate compared to those presented at functional class II

### A Primary Malignant Chondrosarcoma of the Sternum with Double Layer Mesh Reconstruction after Excision

Hussein Ahmed Lateef

**Content:**

Chondrosarcoma of the sternum is a rare as primary malignant tumor, a 22 years female with no notable medical history presented with painful swelling of the anterior chest wall. On examination there was a mass with ill-defined margin at the body of the sternum tender on palpation. A chest computed tomography (CT) scan showed a large mass involving the body of the sternum extending to the anterior mediastinum; needle aspiration cytology was not conclusive. Surgical excision of the mass with the adjacent 3 costal cartilage on each side. The defect was reconstructed with double layer mesh and bone cement (methacrylate). The histopathological examination revealed chondrosarcoma of the sternum with free margins. The cosmetic result for the reconstruction was excellent.

### VATS in Thoracic Trauma the Rule or the Exception to the Rule

Hussein Ahmed Lateef

**Introduction:**

Video- assisted thoracoscopic surgery (VATS) is the standard treatment in modern thoracic surgery. But in trauma surgery, there is still a great debate and concern about patients' safety, timing of the procedure, indications and contraindications; this in return prevents the wide spread implementation and acceptance of VATS as a standard treatment.

**Method:**

Sixty- five patients with blunt or penetrating chest trauma underwent VATS procedure in a single centre at the ministry of health, United Arab Emirates between October 2008 and August 2015. VATS was performed for both diagnostic and therapeutic purposes. Intervention was divided into early (within one week) and late (after one week). Indications for intervention were retained haemothorax, persistent pneumothorax, pulmonary laceration, posttraumatic empyema, pericardial effusion, diaphragmatic injury and others.

**Results:**

The majority of patients had blunt thoracic trauma; penetrating trauma was present in two cases. Fifty-six patients were treated by VATS within one week ; retained haemothorax was the most common indication. Most patients responded well to treatment by VATS. Five cases were converted to open thoracotomy due to uncontrolled haemorrhage and unclear anatomy as a result of massive haematoma of the mediastinal structure. One case of incidental finding of pericardial cyst was also included. Time of intervention influenced the type of intervention.

**Conclusion:**

After careful assessment of the traumatised patients and excluding patients who were not candidate for VATS intervention, VATS proved to be a safe and effective alternative to open procedures in thoracic trauma with all the advantages of minimal invasive surgery.

### Understanding Patient-Ventilator Interaction: The Importance of Identifying Dyssynchrony

Hussain Khatam

**Abstract:**

Consistent vigilance of patient-ventilator interaction plays an important role in the management of patient on mechanical ventilator. Ventilator waveforms often display response to ventilator changes and patient status beyond what clinicians suspect. Recognize how ventilator waveforms are displayed is critical to understand patient-ventilator interactions and to optimize the management of patients undergoing invasive mechanical ventilation. Patient ventilator asynchrony is one of the most common unrecognized events in the ICU, its recognition and management are important to make meaningful positive change in patient outcome. Synchrony between the patient and the ventilator should be of utmost importance, graphical interference is much more advanced today and they give clinicians a valuable tool to guide breath delivery in an effective and comfortable manner. In this presentation I will discuss patient-ventilator asynchrony, Types, modes, and its clinical significance. This will include ineffective effort, double triggering, flow asynchrony, auto triggering. I will support my presentation with the latest studies that discuss the effect of PEEP, pressure support, tidal volume on patient ventilator asynchrony. The extreme levels of PSV are not associated with the best comfort. Reducing PSV reduced tidal volume and minimized ineffective triggering events. The decrease of asynchrony index was greater after changing the ventilator setting than after increasing the sedation-analgesia. Sedations have no effect on reducing double triggering. Ineffective triggering and double-triggering were the two main asynchrony patterns. Asynchrony existed during both ACV and PSV. Double-triggering was more common during ACV than during PSV.

### Lung Transplant Program in Saudi Arabia Review of 50 patients

Imran Nizami

**Purpose:** To highlight the differences in lung transplant (LTx) patient and donor population in Saudi Arabia (SA)

**Methods:**

Retrospective Chart Review of the 50 patients transplanted between January 2010 and December 2013

**Summary of Results:**

The indications for LTx were pulmonary fibrosis 20(40%), Bronchiectasis 16(32%), Cystic Fibrosis 10 (20%), COPD 0(0%), Others 4(8%) (Fig 1). The LTx patients were younger (Fig 2). Most donors were colonized with bacteria 35 (70%), including multiple drug resistance organisms 18(51%). The one and two year's actual survival was 82% and 80%.

**Conclusion:**

During the study period the common indications for lung transplant in SA were different from the ISHLT registry. The patient

population was younger. Majority of donors were colonized with bacteria at the time of LTx. The patient survival however is comparable to ISHLT registry.

## The Prevalence, Possible Risk Factors and the Effect of Swallowing Abnormalities in Post Lung Transplant Patients

Imran Nizami, MD, Amber Hassan, PhD, Hatem Elabd, PhD

### Purpose:

To study the prevalence, possible risk factors and the effect of post lung transplant swallowing abnormalities in lung transplant patients.

### Methods:

Retrospective chart review of patients that underwent lung transplant at our center between 2010 and 2013. The prevalence of swallowing abnormalities was judged by bedside examination and modified barium swallow. A correlation between swallowing abnormalities (SA) and the duration of mechanical ventilation (DMV) and need for tracheostomy (Tr) was calculated. Those with SA were compared with patients without SA to assess the effect of SA on Length of hospital stay (LOS), episodes of acute rejection (AR) and episodes of pneumonia requiring hospitalization (PRH) in the first year post transplant.

### Summary of Results:

Total of 50 lung transplants were performed during the study period. The data was available in 42. The prevalence of SA was 75.68%. All patients recovered from SA. The average duration of mechanical ventilation in pts with and without SA was 19 and 8.1 days (p=0.16).

The number of pts requiring tracheostomy in SA group was 9 (32%) vs 1 (11%) without SA (p= 0.21). The pts with SA stayed in hospital for an average of 46.5 days vs pts without SA 32.1 days (p=0.21). The ICU length of stay was 23.5 days in SA group vs 12.7 in non SA group (p= 0.16). The number of acute rejection were 11 (39%) and 1(11%) and pneumonia requiring hospitalization 8(88%) in SA group and 19(67%) in no SA group.

### Conclusion:

SA was common in post lung transplant patients. With speech therapy intervention the SA recovered in all patients. In our small study the DMV and Tr. did not significantly affect the prevalence of SA. Similarly there was no difference in the LOS, AR and PRH in patients with SA.

## Assessing Decision of Inpatient or Outpatient Care in Community Acquired Pneumonia: APT Care Study

Saleem Ullah, Javaid Khan, Amanullah Khan, Irfan Hashemy

### Background:

An important decision in managing Community Acquired Pneumonia (CAP) patients relates to their hospitalization. CURB65 (Confusion, Uremia, Respiratory rate, Blood pressure, age ≥ 65 years), a prediction tool helps in decision making. This study estimates the proportion of CAP patients with disagreement between CURB65 recommendation and physician's decision to hospitalize/not hospitalize.

### Methods:

This cross-sectional study recruited consenting adult patients with a confirmatory diagnosis of CAP on Chest X-ray. CURB65 recommendation for each patient was determined at the time of data analysis. This recommendation was compared with the treatment decision made by the physician. Disagreement (expressed as a proportion) was considered when the physician's decision did not match with the CURB65 recommendation.

### Results:

Between December 2011 and May 2012, 22 investigators across ten cities in Pakistan gathered information on 352 eligible patients {57.1% males, mean age: 50.7 (± 18.5) years}.

In 40% (140/352) of patients there was a disagreement between CURB65 recommendation and physician's decision of hospitalization or outpatient care. Of the 352 cases 37.5% (132) were hospitalized despite CURB 65 recommendation of outpatient treatment. Levofloxacin was the most commonly (15%) prescribed mono therapeutic agent whereas ceftriaxone was commonly (30%) prescribed in combination therapy.

### Conclusion:

In this first nation-wide study in four out of ten patients there was disagreement between CURB65 recommendation and the physician's decision on whether or not to hospitalize CAP patients.

## Tobacco Control Law in Pakistan and its Implementation

Javaid A. Khan, Nousheen Iqbal, Muhammad Irfan

### Background:

Tobacco is a major public health issue of WHO EMRO region including Pakistan. To control the rise in tobacco use in Pakistan a law was introduced in 2002, in line with Framework Convention on Tobacco Control. However, no data is available to see how this law is being implemented in the country. Besides other measures the law included a ban on sale of tobacco to minors and prohibition of smoking at all public places.

### Objectives:

1. To effectively monitor the implementation of tobacco control statutes in the largest city of Pakistan.
2. To provide the Ministry of Health with concrete evidence regarding the current status of the implementation of tobacco control statutes in Karachi
3. To highlight the need for awareness of the general public regarding the presence and implementation status of anti-tobacco laws.

### Methods:

A cross-sectional study was conducted in Karachi between the Jan to March 2012. To monitor the implementation of tobacco control laws at public places. Various banks, offices, educational campuses, restaurants and public service vehicles were randomly chosen and surveyed by researchers. To document the adherence of tobacco companies to the tobacco control laws the display of pictorial warnings on cigarette packs and the availability of various cigarette brands in packs both with and without warning signs was documented. To assess the regulation of cigarette sale in Karachi Cigarette outlets were randomly chosen and sale to minors, the presence of children's items and cigarette advertisement in the form of posters was documented. To assess the awareness of the general public regarding tobacco control laws participants were chosen at random from the general public and their views regarding ban on smoking in public places was documented on a self-administered questionnaire.

### Results:

Of the 91 restaurants surveyed, 70% did not display any smoking signs. People were observed smoking in 58% of the restaurants. Out of visited 99 banks and offices only about one-third of these had no smoking signs and smoking was witnessed in 29% of them. There was a disparity in the percentage of government banks and offices where smoking was observed (71%) as compared to privately owned banks and offices (24%). Of the 98 public transport vehicles surveyed, smoking was observed in 49%. 16 randomly chosen universities across Karachi were surveyed. Out of these, smoking was witnessed in 77% of university campuses. Also, cigarettes were being sold near 94% of them. Tobacco products of 37 brands were surveyed only 62% of the brands displayed pictorial warnings on their packs. 8% of the brands were available in two different kinds of packs, both with and without pictorial warnings. 94 cigarette outlets were surveyed for monitoring the regulation of cigarette sale. Cigarette sale to minors



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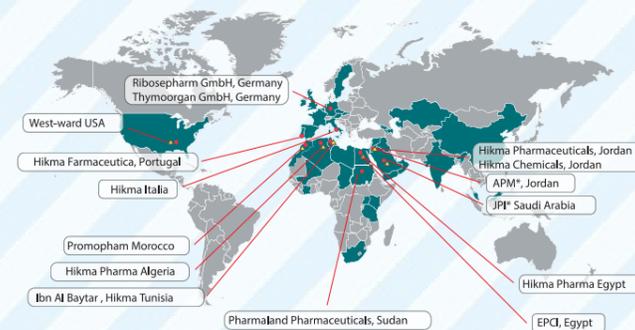


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was taking place at 85% of these, and the same percentage of outlets was also selling children's items. Cigarette advertisements in the form of posters were on display at 53% of the outlets. 114 randomly chosen members of the general public filled our study questionnaire. Only 40% of these had awareness regarding the existence of ban on smoking in public places and 90% of these 114 people were in favour of a ban on smoking in public places.

**Conclusion:**

The implementation of tobacco control law in Pakistan is poor. Non adherence to the law in banks, office, public transport, university campuses and restaurants was found to be alarmingly high. There is a dire need for strict implementation of anti-tobacco laws in order to curb the growing tobacco epidemic in the country.

**Asthma Control Test: A New Tool to Assess Asthma Control**

Javaid Khan, Nousheen Iqbal, Muhammad Irfan

**Background:**

Asthma is a common worldwide and majority of the patients live in the developing countries. A variety of methods have been used to assess the level of disease control. Asthma control test (ACT), a relatively new concept, is based on five simple questions that are answered by the patient in an outpatient setting. Each question has a score of 0 to 5. A score of 25 is considered as total control, between 20-24 well control and 12yrs were included. A standard ACT questionnaire was administered by a junior doctor before the patient saw the consultant.

**Result:**

150 patients were included. 68 (45%) were male and 82(55%) female. Sixty one (41%) were first time attendees and 89 (59%) follow-ups. Forty six (31%) patients were in the step 1 management of asthma as defined by the ATS/ERS, and 52(34.5%) in stage 2 and 3. Of these patients only 10(7.0%) patients had an ACT score of 25. Forty seven (31.0%) had a score between 20-24 and 93 (62%) patients had a score

**How Well Controlled are Asthma Patients in Pakistan**

Khan Javaid Ahmad, Haque Suleman, Badar Talha, Zubairi Ali

**Objectives:**

Asthma is common problem in developing countries like Pakistan. Quality of life of asthma patient is dependent on the level of asthma control. A variety of methods have been used to assess the level of disease control. We used Asthma control test (ACT), a relatively new tool, which is based on five simple questions that are answered by the patient in an outpatient setting. Each question has a score of 0 to 5. A score of 25 is considered as "total control", between 20-24 "well control" and 12yrs were included in this study. A standard ACT questionnaire was administered by a junior doctor before the patient was seen by the consultants.

**Result:**

150 patients were included. 68 (45%) were male and 82(55%) female. 61(41%) were first time attendees and 89(59%) follow-ups. 46(31%) patients were in the step 1 management of asthma as defined by the ATS/ERS, and 52(34.5%) in stage 2 and 3. Of these patients only 10(7.0%) patients had an ACT score of 25. 47(31.0%) had a score between 20-24 and 93 (62%) patients had a score

**Pulmonary Tuberculosis: High Resolution Computed Tomographic Contribution**

M. Abouda, M.Triki, M. Charfi\*, F. Yangui, Y. Ben salah\*, N. Reguaya\*, S. Fourti\*, S. Ismail, S. Louhaichi, R. Ayari, H. Bouhaouala\*, M.R Charfi

**Content:**

Although chest radiographs usually provide adequate information for the diagnosis of active pulmonary tuberculosis, minimal exudative tuberculosis can be overlooked on standard chest radiographs (CR). The aim of the present study was to assess the contribution of high resolution computed tomographic (HRCT) scans on active pulmonary tuberculosis comparing to chest radiography, and to evaluate their possible use in detecting tuberculosis lesions in atypical cases and in determining disease activity.

**Methods:**

Fifty one patients with newly diagnosed active pulmonary tuberculosis were examined. The diagnosis of active pulmonary tuberculosis was based on positive acid fast bacilli in sputum and bronchial washing smears or cultures, cheesy necrosis on biopsy and/or changes on serial radiographs.

**Results:**

The middle age of our patients was 51 old year. Male were predominant in the majority of cases (n=41). The most common symptoms were cough and weakness. The CR showed cavitations (n=6), condensations (n=12), nodular infiltrate (n=6), residual

aspect (n=10), hilar opacity (n=8) alveolointerstitial lesions (n=2), and was normal (n=10). HRCT showed macronodules (n=19), condensations (n=17), cavitations lesions (n=14), mediastinal adenopathy (n=22), nodules (n=14), ventilator disorders (n=10), bronchiectasis (n=13), tree-in-bud appearance (n=5), minimal pleural effusion (n=4) and alveolointerstitial lesions (n=2). In most cases these lesions were associated.

**Conclusion:**

Scanning is more sensitive than chest radiography in depicting cavitation, rupture into the pleural space, mediastinal adenopathy. (HRCT) scans demonstrated early bronchogenic spread which helps in identifying active disease.

**Respiratory Home Care in Eastern Province of Saudi Arabia: The Current Status And Obstacles**

Hassan Al Gazwi, Hawra'a Al Meer, Aqeel Al Qattan, Ruben D Restrepo, Mustafa Alkhalaf

**Background:**

Respiratory home care (RHC) is a crucial element of Home health care (HHC) and defined as "those specific forms of respiratory care (RC) provided in the patient's place of residence by professionals trained in RC".

**Objectives:**

This study was conducted to assess the status of RHC services in the eastern province of Saudi Arabia and to identify obstacles that HHC programs face, precluding the establishment of this services.

**Materials and Methods:**

A questionnaire with explanation of the study objectives was conducted via phone call to all general hospitals in eastern province. Data was only gathered from the hospitals in which HHC services are provided.

**Results:**

Only 13 hospitals were included in the study, 10 MOH governmental, 2 non-MOH governmental, and 1 private hospitals. 11 HHC programs (84.6%) provide RHC services which vary from each program. Only 5 HHC programs (38.5%) have a trained RC professionals. Many obstacles face the progress and development of RHC services are lack of required trained professionals in RHC and the lack of awareness.

**Conclusion:**

RHC services are underdeveloped at the levels of practice. It faces a number of obstacles that hinder its progress, including lack of adequate specialized staff and lack of awareness. Organized efforts are needed to overcome those defined obstacles facing the establishment and progress of RHC.

**Using Proportional Assist Ventilation to Wean Adult Difficult-To-Wean Prolonged Mechanically Ventilated Patients**

Hassan Ali Al Gazwi, BsRC, RCS, CEA & Malak H. Al-Basha, BsRC, RCP

**Background:**

Weaning is the process of liberating patients from mechanical ventilation (MV). 6% of ventilated patients are prolonged mechanically ventilated (PMV) and 20% to 30% are difficult-to-wean. The respiratory muscle function is an important determinant of success or failure of the weaning process. Proportional assist ventilation (PAV+) is a novel mode of MV that is designed to keep up the changing patient's breathing demand and lung mechanics, and unload respiratory muscles.

**Objectives:**

This study was designed to determine the effect of PAV+ on adult difficult-to-wean PMV patients.

**Methods:**

After multiple conventional weaning attempts of PSV had failed for eight adults, PMV patients who spent more than three weeks but less than three months on MV and were difficult-to-wean /failed SBT trials with PSV more than five times. We switched them to PAV+ mode using predetermined PAV+. Negative Inspiratory Force (NIF and Airway Occlusion Pressure (P 0.1) were measured throughout PAV+ trails.

**Results:**

Fourteen adult patients were included in this study. All patients were on tracheostomy tube. Ten of the patients with mean duration of MV was 53.2 days prior to PAV+ trial. On PAV+, NIF and P 0.1 measurements improved by 87% and 79% respectively from the baseline (Figure.1). They were successfully weaned off MV with an average weaning time of 5.8 days (Figure.2). Figure.1: NIF and P 0.1 measurements throughout PAV+ trails. Figure.2: Time Spent on Conventional Weaning and PAV+.

**Conclusion:**

PAV+ can be used safely and efficiently to wean adult difficult-to-wean PMV patients. PAV+ provides opportunity for a respiratory muscle to recover and strengthen, increasing the likelihood of weaning success.

### Proportional Assist Ventilation Versus Pressure Support Ventilation in Prolonged Mechanically Ventilated Patients

Hassan Al Gazwi, BsRC, RCS, CEA & Malak Al Basha, BsRC, RCP

#### Background:

Weaning is the process of liberating patients from mechanical ventilation (MV). 6% of ventilated patients are prolonged mechanically ventilated (PMV) and 20% to 30% are difficult-to-wean. PMV increases health care cost. Modes of ventilation used in MV weaning have produced variable results. Pressure support ventilation (PSV) is a well-known and widely accepted weaning mode in clinical practice. The main shortcoming of currently available modes of weaning is inability to meet patient's changing ventilator demand. Proportional assist ventilation (PAV+) is a novel mode of MV designed to keep up changing patient's breathing demand, lung mechanics, and unload respiratory muscles (work of breathing).

#### Objective:

To compare PAV+ and PSV in the weaning of prolonged mechanically ventilated Patients

#### Methods:

The study was conducted on 24 prolonged mechanically ventilated (PMV) patients who spent more than 3 weeks but less than 2 months on MV which admitted to Intensive Care Unit, at Dammam Medical Complex. All patients were managed according to mechanically ventilation guidelines. Patients were randomly categorized into two equal groups; PAV+ Group: patients weaned using PAV+ and PSV Group: patients weaned using PSV and the two groups were assessed for weaning success, patient-ventilator dyssynchrony, MV days, ICU, hospital length of stay, Negative Inspiratory Force (NIF), which reflects the strength of diaphragm and inspiratory muscles and Airway Occlusion Pressure (P 0.1) which reflects the neural respiratory drive using predetermined PAV+ and PSV protocols.

#### Results:

The weaning success rate was 75% in PAV+ group, and 42% in PSV group. PAV+ group was associated with less patient-ventilator dyssynchrony, better NIF and P 0.1 measurements, and was associated with 6 days reduction in the mean days of MV, 11 day reduction in the mean days of ICU length of stay, and 13 day reduction in the mean days of hospital length of stay in comparison to PSV group.

#### Conclusion:

PAV+ was associated with less patient-ventilator dyssynchrony and associated with reduction of days of mechanical ventilation, ICU, and hospital length of stay when compared to PSV. PAV+ is more efficient to wean adult PMV patients by providing opportunity for a respiratory muscle to recover and strengthen, increasing the likelihood of weaning success.

### Hemoptysis and Bilateral Cavity Lesions Metastasis from Osteosarcoma in Young Male Patient

Mohammed Abdaljawad, MD, Aymen Iskendarani, MD, Abeer Alharbi, MD

#### Background:

Lung metastases are a frequent complication of osteosarcoma and a treatment that would reduce the severity of this complication

would be of great benefit to patients. This case report documents a young male patient with recurrent hemoptysis. After 6 months of right sided pneumothorax, for which he underwent decortication, presented with hemoptysis and bilateral cavity lesions, for which bronchoscopy done. Active bleeding was coming from right lower lobe. Surgical resection done to right middle and lower lobe. The histopathology tissue report came as highly malignant osteosarcoma.

### Asthma Education and Its Impact on Patient Management

Moayyad Malas, Essam Awdah 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.

### Case Report 4th Line Crizotinib in Metastatic Lung Adenocarcinoma: A Complete Clinical Response

Medhat Faris, Adult Oncology Department, <sup>2</sup> Ahmed AlBuAli Medical Imaging Department

#### Content:

Case Report 4th Line Crizotinib in Metastatic Lung Adenocarcinoma: A Complete Clinical Response

#### Objective:

To illustrate the treatment results of Crizotinib in the management of a patient with Metastatic NSCLC adenocarcinoma ALK +ve

#### Methods:

Female patient aged 63 years, presented in June 2011 with progressive cough, shortness of breath and Enlarged Left supraclavicular lymph node (SCLN) associated with weight loss about 10kg. She was diagnosed by Lt. SCLN biopsy. Pathology was reported as GII lung adenocarcinoma with, cytokeratin 7 strongly +ve, TTF-1 was strongly +ve EGFR mutation was -ve. ALK mutation test was not done at that time. Staging workup by PET/CT scans revealed a large solid mass about 5 cm x 7 cm in the posterior segment of the Rt. lower lobe with SUV of 14. Both lung bases showed numerous bilateral FDG avid pulmonary nodules. The mediastinum also showed multiple FDG avid lymph node enlargements. Based on the PET/CT scans, the patient has a clinical staging of T3 N3 M1 non-small cell lung cancer. She received 3 cycles of carboplatin and Premetrexate with good tolerance and Good response confirmed by PET CT. Unfortunately in February 2012, she presented to the ER with vertigo and dizziness. MRI scan of the brain was done which showed two tiny focal lesions in the left cerebellar hemisphere and left occipital lobe. She had whole brain radiation 30 Gy in 10 fractions. After completion of the radiation therapy, she continued chemotherapy up to 6 cycles. At the end of treatment, PET/CT scan showed excellent favorable response to the treatment. So, she was advised to start maintenance Premetrexate in March 2012 and she continued the maintenance treatment until July 2013 (15 months). During that period, she was complaining of lower limb weakness and difficulty to walk and was diagnosed to be chemotherapy related neuropathy. In September 2013, PET/CT scan showed interval increased in size and hyper metabolic activity in the previously known Rt. Broncho-pulmonary mass as well as increase in FDG avidity of subcarinal, right hilar and left supraclavicular LNs indicating disease progression. Patient was advised to start 2nd line palliative chemotherapy Docetaxel 60 mg/m<sup>2</sup> with G-CSF. She completed 3 cycles; PET CT scan was done in January 2014 and showed mixed partial response to the given treatment (reduction the size of some lesions and appearance of new lesion). Patient was advised to complete 6 cycles of docetaxel. During the 4th cycle, she presented to the ER with febrile



### Science For A Better Life

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neutropenia, chest infection, exacerbation of her bronchial asthma, she was admitted for 3 days, then she was discharged in good condition. Patient was referred to KFSH, in March 2014, for 2nd opinion, we stopped her Doctaxel treatment due to her poor performance status and her frail condition. We arranged for ALK testing. ALK testing came as positive and we started her treatment with crizotinib 250 mg/bid in April 2014 Patient started to gain weight and her symptoms of breathing difficulty and pain diminished.

**Results:**

No toxicities were reported and after 6 months assessment her PET CT showed complete clinical CR as shown in figure(1) Now patient completed almost 21months leading almost normal life with no reported side effects.

### Prevalence and Severity of Asthma Symptoms in School Children in the UAE

Mohammed Shamssain, MD, Saeed Abdulla, MD, Aya Raham Lafta, MD

**Background:**

Few studies on the prevalence of asthma symptoms and allergies have been performed in the UAE.

**Objective:**

The aim of the study was to investigate further trends in prevalence and severity of symptoms of asthma in school children.

**Methods:**

The Arabic and English version of The International Study of Asthma and Allergies in Childhood (ISAAC) standard questionnaire was used. Four thousand eight hundred and forty six schoolchildren were studied. Data were analyzed using SPSS.

**Results:**

The prevalence rates of 'ever wheezed', 'current wheeze', 'speech limitation', 'ever diagnosed with asthma', 'dry cough', and 'exercise-induced asthma' were (19.9%, 14.1%, 5.0%, 19.5%, 16.7%, and 12.2%, respectively).

**Conclusion:**

The prevalence of asthma, respiratory symptoms were relatively higher in Fujairah compared with the other emirates. This might be related to its location in a mountainous area where dust from industrial stone crushers is prevalent. Males showed a higher percentage rate of asthma symptoms than females. The present study will help to implement intervention strategies to reduce asthma symptoms in UAE schoolchildren.

### Small Cell Lung Cancer, still Surgeons can do something

Majed AIMourgi, FRCS, FCCP, FACS

**Background:**

Approximately two-thirds of patients presenting with SCLC have clinical evidence of hematogenous metastases (M1) or extensive stage (ES) disease, and chemotherapy is the standard of care. Of the remaining one-third of patients with limited-stage (LS) disease, most have clinical evidence of extensive nodal involvement in the hilar (N1), mediastinal (N2-3), or supraclavicular regions (N3). For this reason, surgical resection is seldom offered in LS-SCLC and instead, 4 to 6 cycles of systemic chemotherapy, with concurrent or sequential TRT, has been typically accepted as the cornerstone of therapy. Only 4% to 12% of patients with SCLC have very early stage (VES) disease localized to the lung in the form of a solitary pulmonary nodule (T1-2, N0, M0). We should no longer equate every diagnosis of SCLC with inoperability. The immortalization of old randomized trials demonstrating lack of benefit of surgery carried out in an era using outdated staging tools and methodology and less effective drugs has no validity in the present era and should not influence the current management of patients diagnosed with VES-SCLC. Continuously over the past several years, data have been gathering in support of surgery for early-stage SCLC. Sadly a pessimistic view about the prognosis of all patients with SCLC prevails. Surgery is often not even addressed in review publications. Although there are no recent randomized trials or meta-analyses supporting the role of surgery in selected early-stage SCLC, with adequate patient selection (good performance status), rigorous preoperative staging (T1-2, N2-3 disease excluded, M0) and combined multimodality therapy (surgery, chemotherapy ± TRT, and PCI), high rates of local control and satisfying long-term outcomes similar to equivalent-stage NSCLC can be achieved. Patients Despite improvements in disease-free and over-all survival with pulmonary metastasectomy, few patients are effectively cured of their disease with this approach. Prognostic factors for patients undergoing pulmonary metastasectomy include cell type, time interval between primary tumor resection and identification of pulmonary metastases, number of pulmonary metastases, metastases to other sites, and the ability to completely resect all metastatic disease. Only recently has there been significant attention given to the status and evaluation of lymph node metastases during pulmonary metastasectomy. Most surgical oncologists would agree that patients with bulky nodal metastases to the mediastinum are unlikely to benefit from surgical resection, and hence are not candidates for metastasectomy; this abstract analyzes studies evaluating patients with minimal nodal disease burden or radiologically negative mediastinal nodes. This article focuses its discussion on the incidence of lymph node involvement, the impact on survival along with therapeutic implications, and recommendations regarding the management of these patients.

### Efficacy of Lymphadenectomy during Pulmonary Metastasectomy

Majed AIMourgi, FRCS, FCCP, FACS

**Background:**

The primary cause of death of patients with cancer is generally metastatic disease. Frequently, the lung is a site of metastatic disease and often portends widespread, systemic disease. The first pulmonary metastasectomy was reported in 1882.1 Since this report; hundreds of articles have been published regarding the results of pulmonary metastasectomy. Despite a paucity of randomized clinical trial data, it is now generally accepted that overall survival for many tumor types is improved with resection of limited metastases in carefully selected patients. Despite improvements in disease-free and over-all survival with pulmonary metastasectomy, few patients are effectively cured of their disease with this approach. Prognostic factors for patients undergoing pulmonary metastasectomy include cell type, time interval between primary tumor resection and identification of pulmonary metastases, number of pulmonary metastases, metastases to other sites, and the ability to completely resect all metastatic disease. Only recently has there been significant attention given to the status and evaluation of lymph node metastases during pulmonary metastasectomy. Most surgical oncologists would agree that patients with bulky nodal metastases to the mediastinum are unlikely to benefit from surgical resection, and hence are not candidates for metastasectomy; this abstract analyzes studies evaluating patients with minimal nodal disease burden or radiologically negative mediastinal nodes. This article focuses its discussion on the incidence of lymph node involvement, the impact on survival along with therapeutic implications, and recommendations regarding the management of these patients. Pulmonary metastasectomy continues to be an effective approach to prolong survival in appropriately selected patients. The incidence of lymphatic spread is more common than previously recognized, with an estimate of 20% to 25% across multiple tumor types. The presence of metastatically involved lymph nodes adversely affects survival. What remains unclear is whether N1 vs N2, or the number of stations involved affects survival differently. The role of surgery for pulmonary metastasectomy in the patient with nodal metastases will likely expand with ongoing improvements in targeted and immunotherapies.

**Methods:**

This is a retrospective review of 16 recent studies visiting this hot topic including (ACOSOG) Z0030 Trial. Result were analyzed and compared in order to answer the urging questions regarding the rule of lymphadenectomy in pulmonary metastasectomy.

**Conclusion:**

Pulmonary metastasectomy continues to be an effective approach to prolong survival in appropriately selected patients. In regards to lymph node status at the time of metastasectomy, the authors draw the following conclusions:

1. The incidence of lymphatic spread is more common than previously recognized, with an estimate of 20% to 25% across multiple tumor types. The authors would recommend all patients undergoing pulmonary metastasectomy to have a concomitant lymph node sampling or dissection for assessment of disease burden.
2. The presence of metastatically involved lymph nodes adversely affects survival. What remains unclear is whether N1 vs N2, or the number of stations involved affects survival differently.
3. The authors recommend patients with lymph node metastases, if discovered preoperatively, still be offered metastasectomy selectively, since survival has been demonstrated in a limited number of select cases. The role of surgery for pulmonary metastasectomy in the patient with nodal metastases will likely expand with ongoing improvements in targeted and immunotherapies

### Tobacco Brand Names and Logos Recognition by 1st Grade Schoolchildren in the Kingdom of Saudi Arabia: Cross-Sectional Survey

AlShehri, Mohammed, BsRC, AlAhmari, Mohammed, PhD, RRT, CTTS

**Objectives:**

Prosmoking messages, delivered through smoking parents, media and other exposure factors, can reach very young children and influence attitudes and behaviors toward smoking [2-4].

This study aimed to assess the ability of 1st grade of primary schoolchildren to recognize tobacco products and logos of widely advertised tobacco products compared with other common commercial products.

**Methods:**

Cross-sectional survey in class room settings using a questionnaire designed to measure 3 popular tobacco products and logos for 3 common commercial products (1 food, 1 beverage and 1 restaurant brand) were conducted in primary schools at different regions nationwide. Children were instructed to match logos with one of 6 products pictured on a cartoon board. Descriptive statistics (absolute values and proportions) were used to report responses to survey items.

**Results:**

The sample consisted of 546 students, of whom 32% were girls. In general, overall tobacco recognition rate was 79%, in which cigarette brands were recognized by 37%. Girls showed a higher rate of recognition than boys with 35% and 43% respectively, and recognition for other products was much higher than for cigarette brands. For example, 98% reported for Pepsi and 94% for Chips. Hookah (Shisha) was particularly recognized in a higher rate than cigarette brands with 42% overall.

**Conclusion:**

The majority of 1st grade schoolchildren are familiar with tobacco brands. This study's findings, suggest that children are widely exposed to tobacco products and promotion. The high Hookah recognition rate may be due to home exposure, by children than cigarettes. More effective regulation is needed to combat a generation of nicotine addicts.

**Xpert MTB/RIF Assay and the Diagnosis of Tuberculosis Pleural Effusion**

**Prof. Adnan Al-Juboori, MD, MRCP, Prof. Abdulla Alfarttoosi, MD, FIBMS, Thamer H. Abd-Ali, MD, MBChB, Mohammad Yahya Abdulrazaq, MD, CABM, FIBMS, FRCP**

**Introduction:**

Pleural Tuberculosis is a common manifestation of extrapulmonary tuberculosis and is a frequent cause of pleural effusion. Polymerase chain reaction test has been used to detect tuberculosis in pleural fluid samples, with variable sensitivities. In Iraq, whenever pleural effusion is seen in an adult the most likely cause is tuberculosis. Pleural biopsy and cytological examination of the pleural fluid are the most helpful diagnostic investigations

**Aim of Study:** Evaluate the role of Xpert MTB/RIF assay for diagnosis of TB pleural effusion.

**Methodology:**

A retrospective study from 1st of January to 30th of August of 2013. A records of 52 exudative lymphocytic pleural effusion samples from patients referred to the specialized center for chest and respiratory disease in Baghdad were reviewed and a form were filled with the patients demographic information, and the results of Xpert MTB/RIF assay, Bactec culture, and histopathological examination.

**Statistical Analysis:**

Data were entered and analyzed by using statistical package for social sciences SPSS, version 20. Sensitivity, specificity, accuracy, and predictive values of positive and negative results were calculated for the Xpert MTB/RIF assay in comparison to Bactec and histopathology. Chi square test was used to assess the significance of association between variables in study. Level of significance of  $\leq 0.05$  was considered as significant.

**Results:**

Mean age of study patients was  $45.3 \pm 17.7$  years with male to female ratio 1.73:1. Xpert MTB/RIF assay was positive for 36.5% of the patients and negative for 63.5% of them, while Bactec and Histopathological finding revealed that half of the patients had TB pleural effusion. The sensitivity, specificity, positive predictive value, negative predictive value and accuracy of polymerase chain reaction test were 58%, 85%, 79%, 67% and 71%, respectively. There was a significant difference regarding the validity characteristics of polymerase test between males and females

**Early Detection of Chronic Obstructive Pulmonary Diseases by Spirometry in Baghdad teaching Hospital**

**Prof. Abdulla Alfarttoosi, MD, (FIBMS, Baghdad medical college), Mohammad Yahya Abdulrazaq, MD, (CABM, FIBMS, FRCP, Layth Ghazi Salih, MD, Hind Ibraheem Ismael, MD**

**Background:**

Chronic obstructive pulmonary disease is defined as a preventable and treatable airflow limitation that is not fully reversible. The airflow limitation tends to be progressive and is linked to an abnormal inflammatory response due to exposure to noxious particles or gases usually associated with smoking. WHO estimated that 600 million people worldwide suffer from COPD?

**Aim of the Study:** To determine the feasibility of early detection of COPD by Spirometry

**Methods:**

A descriptive cross sectional study was carried out in the respiratory clinic of Baghdad Teaching Hospital. The study began on the 1st of November 2011 till 30th May 2012. The patients were interviewed, the information was recorded via questionnaires form, Spirometry was done for all the patients. The total number of patients included in the study was 1052, any patients who complain of respiratory symptoms (cough, sputum, dyspnea, wheeze, recurrent chest infection),  $\geq 35$  years old with history of smoking or quit smoking or with occupational hazards predisposing for the risk of having COPD included in this study. Statistical analysis; All data were analyzed by statistical package for social science (SPSS version 19).

**Results:**

COPD patients were 148 (14%) from 1052 patients, 70.3% were males and 29.7% females. Current smokers were 109 (73.6%). Of the 148 patients who fulfilled the criteria for COPD diagnosis, 28 (18.9%) were found to be in COPD stage 0; 1 (0.7%) stage I, 82 (55.4%) stage II, 30 (20.3%) stage III and 7 (4.7%) stage IV.

**Conclusion:**

Spirometry can be used in the early diagnosis of COPD, that about fifth of the patients had stage 0 and more than half of COPD patients had stage II.

**Key word:** Spirometry, COPD, cross sectional study

**High Sensitivity C- Reactive Protein in Chronic Asthmatic Patients in Baghdad Teaching Hospital**

**Prof. Kassim Sultan, MD, MRCP, FRCP, Prof. Abdulla Alfarttoosi, MD, FIBMS, Muhammed Saleh Najdat Muhammed Saleh, MD, MBChB, Mohammad Yahya Abdulrazaq, MD, CABM, FIBMS, FRCP**

**Background:**

Asthma is characterized by chronic inflammation of the airways, the relevance of high sensitivity assays for C-reactive protein, which are known to be a sensitive marker of low grade systemic inflammation, has not been fully studied in asthmatic patients in Iraq.

**Aim of the Study:**

Examine serum high sensitivity CRP levels in patients with asthma and their relationship to clinical characteristics and degree of airway inflammation.

**Method:**

A cross-sectional study conducted in Baghdad teaching hospital from March 2010 till September 2010, in this study a random sample of 58 persons were divided into healthy group 12 persons, and two groups of adult patients with chronic stable asthma, 22 patients receiving inhaled corticosteroids (ICS positive group) for the past 2-3 months, and 24 patients (ICS negative group) treated with short-acting inhaled B2-agonist. The selected persons were subjected to measurement of serum high sensitivity C reactive protein and pulmonary function test

**Statistical Analysis:**

SPSS (statistical package for social sciences) version 18 was used for data input and analysis. For independent samples, test was used to estimate the significance of difference between two continuous variables t. Pearson, s correlation coefficient used to estimate the significance of relation between two continuous variables. P value less than 0.005 considered significant.

**Results:**

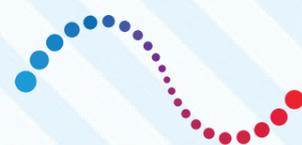
FEV1/FVC in the ICS positive group was significantly higher than ICS negative group ( $73.5 \pm 2.4$  for ICS positive versus  $67.9 \pm 2.3$  for ICS negative with a p:

**Active Case Findings of Household Contacts of Sputum Smear Positive Tuberculosis Case in Baghdad**

**Layth Ghazi Salih, MD, IBMS-CM, Mohammad Yahya Abdulrazaq, MD, CABM, FIBMS, FRCP, Prof. Abdulla Alfarttoosi, MD, FIBMS**

**Introduction:**

Good TB treatment success rates have been achieved under DOTS, low case detection rates remain an obstacle to the long-term success of TB control programs. Current World Health Organization policy emphasizes passive case finding in contrast with the identification of cases through screening. Iraq is a country endemic with tuberculosis. It is estimated in 2013 to have an incidence rate of 45/100,000 for new cases of TB and a prevalence of 73/100,000. Still Iraq did not achieve global target of cases detection (70%) as detected only 59% of new cases of 2013. This study looks for other measure than passive case detection to foster early



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case detection, further protect the community and increase case detection rate.

**Aims:**

Increase case detection rate of TB cases through active case finding of TB cases among contacts of known smear positive pulmonary TB patients.

**Specific Objectives:**

Estimate new TB cases among household contact of T.B index case, identify T.B cases among T.B contact by age, sex & type of smear, and increase public awareness towards T.B disease.

**Methods:**

This is a cross-sectional study targeted randomly selected households clusters at their home. Those households (clusters) were pertained to an index case (new or relapsed smear positive TB cases registered in Baghdad during the second half of 2013 from randomly selected catchment areas). Investigations included tuberculin skin testing (TST) and chest X ray (CXR). Statistical package for social sciences (SPSS v20) used to input and analyze data. Multivariate analysis used to study significant associations that are not biased with age and sex. Binary logistic analysis used for this purpose using enter model.

**Results:**

Investigators made 125 home visits to interview household contacts of 119 smear positive pulmonary TB patients. Index cases (pulmonary TB patients) were 101 new pulmonary TB (84.9%) and 19 relapsed pulmonary TB cases. All index patients were older than 14 years. Total interviewed and evaluated contacts were 732, 670 persons pertained to new index cases (91.5%) and 62 contacts pertained to relapsed index cases (8.5%). Male to female ratio was about 1:1, contacts of productive age constituted around half the evaluated contacts (49.0%), around half the evaluated contacts (48%) were offspring of index patients. 23.9% (95%CI: 20.9%-27.0%) had positive tuberculin skin test, and 1% had chest X ray findings suggestive of TB. 557 (76.1%, 95%CI: 72.8%-79.1%) were likely to be free of LTI and TB, 173 (23.6%, 95%CI: 20.6%-26.9%) were having LTI, and only two patients (0.3%, 95%CI: 0.05%-1.1%) diagnosed as TB cases (both were pulmonary TB cases, one of them was a default from a retreatment regimen). Associations with the status of positive tuberculin skin test were examined with multivariate logistic regression and yielded the following significant associations: Age of index case 15-54 year, age of contact and being offspring to the index case, Illiterate, student, housewife, cigarette smoker, family size larger than 5, monthly income between (US\$ 208-416), positive history of TB in family prior to recent index case, positive history of TB, BCG, diabetes, and presence of a chronic debilitating disease. Two contacts were found to have a pulmonary TB (one is a young male who is a default from a retreatment regimen for TB and an old woman who diagnosed to have a new smear positive pulmonary TB).

**Conclusion:**

LTI is prevalent among contacts and incidence of PTB among contacts is less than expected international figures.

### Histopathological Types of Primary Lung Cancer in Baghdad

**Prof. Kassim Sultan, MD, Prof. Abdulla Alfarttoosi, MD, Mohammad Abdulrazaq, MD, Ali Altamimi, MD**

**Introduction:**

Lung cancer is one of the most common cancer, by 2008, there were an estimated 1.61 million new cases, representing 12.7% of all new cancers. It was also the most common cause of death from cancer, with 1.38 million deaths representing 18.2% of the total deaths

**Objective:**

Study histopathological types of lung cancer in relation to gender, age, and smoking habit in Baghdad

**Methods:**

170 patients with histopathologically proved primary lung cancer were targeted by this study. All lung cancer cases diagnosed during a period of one year from January 2011 until December 2011 were retrospectively analyzed based on the data of the medical city complex in Baghdad.

**Results:**

There were 124 (72.9 %) males and 46 (27.1 %) females .The mean age was 62.5 year.67.6 % of the patients were smokers while 32.4 % were nonsmokers. It was significant to find mean ages of each type of lung cancer are about the same (around 62 years) except younger (58.8 year) for large cell carcinoma .It was significant to find that most frequent type of primary lung cancer is squamous cell carcinoma (47.1%), followed by adenocarcinoma (30.0%), then by small cell carcinoma (20%), while large cell contributed to ( 2.9% ) .Lung cancer among men, was more often squamous cell carcinoma (53.2%) . Adenocarcinoma represents the most common type of lung cancer among women. Among smokers squamous cell carcinoma was the most common type of primary lung cancer while adenocarcinoma was commonly seen in nonsmokers.

**Conclusion:**

Most cases of primary lung cancer occur in males and usually diagnosed after the age of 45 years. Squamous cell carcinoma represents the most common histological type of lung cancer with significant predominance in males and seems to occur mainly in smokers.

**Key words:** primary lung cancer, Squamous cell carcinoma, smoking.

### Risk Factors of Tuberculosis in Among Marshland Populations in South of Iraq

**Abdulkarim Fazza Abdulla, MD, Mohammad Yahya Abdulrazaq, MD, Layth Ghazi Salihi, MD**

**Background:**

Tuberculosis (TB) ranks as the second leading cause of death from a single infectious agent. As a consequence of the marsh drainage and destruction, the largely displaced and widely persecuted marsh dwellers still suffer from economic loss, inadequate nutritional intake, and poor primary health care and absence of acceptable drinking water. There is no clear figure for influence of such residential areas and related risk factors on TB in Iraq.

**Aims:** Exploring risk factors of TB in southern Iraq with focus on marshlands population

**Methods:**

This is a case control study conducted in three southern governorates of Iraq (Basrah, Thiqr and Misan). Cases were patients discovered during data collection time and control were matched for residence, age and sex enrolled while attending a primary health care center for complaints unrelated to TB. Data collection was during May to Mid-September 3013 by structured interviews by a trained team of investigators. Multivariate logistic regressions adjusted for age and sex were used to measure the degree of associations between studied factors and occurrence of tuberculosis.

**Results:**

Study sample composed of 455 new cases of TB and 444 controls. Males constituted 47% of both study groups. Age older than 65 year increases the risk to have TB (OR= 2.7). Overweight, obesity I, and obesity II, decrease the risk of TB (OR1). Hard worker or farmer, unemployment and students increase the risk of TB (OR> 1). Positive family history of TB increases the risk of TB (OR> 1). The longer the duration of use of Dexamethasone medication the more the risk of TB (OR≈ 1.1). Living/residing in other than urban setting (or displaced) increases the risk of TB (OR=1.3). Home built from mud increases the risk of TB (OR≈ 1.7). Home with no windows increase the risk of TB (OR=2.2). Increase in family size and increase in number of family members older than 15 year increases the risk of TB (OR > 1). Drinking non-sterile milk increases the risk of having TB (OR=3.9).

**Conclusion:**

Predictors for tuberculosis include: age older than 65, underweight, single status, low education level, hard work/farming, student status and unemployment, family history of TB, long duration of Dexamethasone use, non-urban residence (rural, marshland or displace people), homes built from mud, homes not provided with windows (i.e. not proper ventilation or sun-light illumination), large family size, drinking non-sterile milk, use of kerosene as a cooking fuel.

### The Involvement of the Lung Periphery in Cystic Fibrosis: An Exploration using Multiple-Breath Nitrogen washout and Helium-3 Diffusion Magnetic Resonance

**Noor Ali Al-Khathlan**

**Background:**

The assessment of cystic fibrosis (CF) lung disease requires sensitive, repeatable and safe markers of early involvement of peripheral airways. Multiple-breath washout (MBW) and hyperpolarized 3He magnetic resonance (3HeMR) have been demonstrated to be more sensitive to early changes than spirometry. Limited research has explored longitudinal changes in lung clearance index (LCI), and none has looked at phase III slope indices, markers of ventilatory inhomogeneity derived from MBW. The dimensions of lung microstructure using 3HeMR in children with CF have also not been investigated.

**Aims:**

To monitor longitudinal changes in LCI and phase III slope indices in comparison with conventional lung function measures in children with CF and to estimate the dimensions of the lung periphery using 3HeMR.

**Methods:**

Serial measurements of MBW indices, spirometry and plethysmography were obtained from 27 children with CF over a 4-year period. Single 3HeMR measurements were obtained from 18 patients.

**Results:**

LCI showed the highest change over time and was the earliest to deteriorate with age, being elevated in all children at seven years. Conversely, the preliminary results of the association between VI arising from the conducting and acinar airways (Scond, Sacin) with age have shown that Scond reached an asymptote with a maximum of 0.10 L-1 and did not increase further with increasing disease severity. This limits the ability to follow these indices longitudinally. 3HeMR showed that the apparent diffusion coefficient, a marker of alveolar size, was significantly lower in CF patients than controls with no difference in alveolar sleeve depth or radius.

**Conclusion:**

These findings highlight the significance of LCI in the early detection of functional changes in CF. The unexpected outcomes from 3He MR may be attributable to physiological or technical factors. Alternatively, they may suggest that CF does not cause structural damage to the acini in the early stages of the disease, but instead that it predominantly affects airways within the conducting zone.

### Characteristics of Patients with Refractory Asthma from Saudi Arabia

Mohamed S. Al-Hajjaj, MD, FRCP(C), Mohamed S. Al Moamary, ABIM, FRCP (Edin), FCCP, Amal M. Al-Moamary

**Content: Aim:** to study the clinical characteristic and factors leading to refractory asthma.

**Methods:**

this paper prospectively studied a cohort of patients with the diagnosis of asthma who have one of the following situations: inadequately controlled asthma on optimum controller therapy, asthma that requires extended periods of oral steroids to control, or asthmatics with frequent exacerbations despite adequate standard treatment.

**Results:**

74 patients were enrolled. The highest percentage (64.8%) was for patients aged 37-48 years followed by age group 37-48 years (28.3%). Female patients represented 62.2% and male represented 37.8%. Office workers and teachers make the largest group of 48.6% while 20.2% were unemployed. The two major comorbid conditions were allergic rhinitis (54.1%) and gastroesophageal reflux (33.8%). 72 patients (97.3%) had at least one trigger factor for asthma. The asthma control test showed a controlled status in 4.1%, partially controlled in 9.5% and uncontrolled status in 86.4%. Spirometry showed mild disease in 9.5%, moderate in 47.3% and severe in 43.2%. Eosinophilia was seen in only 16.2%. An immunoglobulin E level between 70 and 700 ug/l was found in 58.1%; however, one third of patients had a level >700 ug/l. At least on abnormal radiological abnormality was identified in 48.6%, 48.6%, and 73% in CXR, PNS and CT chest, respectively.

**Conclusion:**

Refractory asthma has certain clinical characteristics and associated comorbid conditions and precipitating factors that facilitate the identifications of these cases for better asthma control.

### Pulmonary Aspergillosis in a Tertiary Care Hospital

Nousheen Iqbal, Muhammad Irfan, Ali Ben Sarwar Zubairi, Javid A. Khan and Safia Awan

**Background:**

Pulmonary aspergillosis has variable course of illness severity and outcomes. Its incidence and outcomes in tertiary care hospital is not completely known especially in this part of world.

**Objective:**

To determine the frequency, clinical features and outcomes of pulmonary aspergillosis in a tertiary care hospital, Karachi Pakistan.

**Methods:**

A retrospective study was conducted in hospitalized patients in last 10 years from 2004 to 2014 with pulmonary aspergillosis at Aga Khan hospital Karachi, Pakistan.

**Results:**

Total 280 cases were reviewed with aspergillosis but only 69 met the inclusion criteria. The mean age was 45  $\pm$  15.7 years. 48 (69.6%) were male and 43 (62.3%) were nonsmoker. The average length of stay LOS was 10.61  $\pm$  9.08 days. The most commonly isolated specie was *Aspergillus fumigatus* 29 (42.0%) followed by *Aspergillus flavus* 20 (28.9%), commonly seen in patients with diabetes DM 21 (30.43%). Majority of patients had previous history of tuberculosis TB 27 (39.13%). Commonest symptoms were Fever, cough and hemoptysis. Mortality rate was 14 (20.2%) ICU admission and ventilation required in 18 (26.08%) and Pneumothorax 10 (14.5%) is the most common complication noted in these patients.

**Conclusion:**

*Aspergillus fumigatus* is the most frequent species found especially in patients with Prior history of TB. Mortality rate is higher in patients who admitted in ICU and require mechanical ventilation. Diabetes, steroids therapy and patients with underlying hematological malignancies are associated with poor prognosis and mortality is significantly high if these patients developed respiratory failure.

### Access to Pulmonary Rehabilitation Services: A survey of Respiratory Clinicians' perspective in a Resource-Limited Country

Akinremi AA and Ogwu SU

**Background:**

Pulmonary Rehabilitation (PR) is effective in improving aerobic function and quality of life in individuals with chronic respiratory diseases. Despite its benefits, PR is not routinely practiced due to several barriers. While most studies have focused on patients- and physician-related barriers, those relating to healthcare system have often been overlooked. Access to quality PR services is essential to reducing the burden of disability associated with chronic respiratory diseases, especially in resource-limited countries where the burden is disproportionately high. This study was aimed at describing respiratory clinicians' perspective on healthcare-related barrier to PR in Nigeria.

**Methods:**

We conducted a survey on clinicians' perspective on access to PR in Nigeria using a pretested questionnaire adapted from a previous study. The questionnaire comprised mainly of 3 sections namely availability, affordability and acceptability of PR services in Nigeria. Responses were classified as extreme barrier if more than 80% of respondents indicated it as a barrier; high if between 79% and 60% indicated it as barrier, moderate if between 59% and 40% regarded it as a barrier and low if less than 40% regarded as a barrier. Questionnaires were distributed to respiratory physicians, nurses and physiotherapists in six teaching hospitals and attendees of a national respiratory clinicians' conference in Lagos, southwestern Nigeria. Collected data were summarized and presented as frequency, bar chart and pie chart.

**Results:**

Ninety-one respondents, comprising of 39 respiratory physicians, 31 nurses and 21 physiotherapists who provide care to individuals with chronic respiratory diseases, completed the questionnaire. Average age and years of clinical experience of participants were 46 $\pm$ 8.4 and 10.8 $\pm$ 2.5 years respectively. Lack of PR services, lack of adequate rehab personnel, non-integration of PR services into routine care (Availability); household cost of chronic respiratory disease (Affordability); cultural preference (Acceptability) were identified as extreme barriers to PR services. Perceived high barriers include: poor referral system, lack of PR equipment or facility, low demand for PR services (Availability); out-of-pocket payment for PR services (Affordability) and low patient expectations (Acceptability).

**Conclusion:**

From respiratory clinicians' perspective, there are several healthcare-related barriers to pulmonary rehabilitation services in Nigeria. These barriers are associated with availability, affordability and acceptability issues and range from extreme to low. There may be need to evaluate current state of pulmonary rehabilitation services for individuals with chronic respiratory diseases in Nigeria. This may inform development of interventional framework to address these barriers and consequently promote equal access to comprehensive and qualitative pulmonary rehabilitation services in Nigeria.

**Key words:** Pulmonary Rehabilitation, Access to care, Healthcare-related barriers,

### Antibiotic Resistance Pattern in Healthy Children Diagnosed with Community Acquired Respiratory Tract Infections in King Abdulaziz University Hospital

Jawaher Walid, Leena Moshref, Mashaal Alzanbagi, Rana Moshref, Wejdan Baabduallah, Eman Aldigs, MD, Turki AlAhmadi, MD, Prof. J Qari, Osama Felemban, MD

**Objectives:**

To identify the prevalent organisms associated with respiratory tract infections according to age groups (2) To identify the most common antibiotics prescribed among pediatric age groups.

**Methods:**

A retrospective cohort study conducted on patients aged 0 to 18 years, admitted to the inpatient department (IPD) diagnosed with respiratory tract infection between Jan 1 2009 to Jan 31 2015 in King Abdulaziz University Hospital (KAUH). Demographic information, diagnosis, date of admission, laboratory investigations, and treatment were collected from patient's electronic and paper records then analyzed. Exclusion criteria were based on congenital defects, chronic diseases, and compromised immunity.

**Results:**

122 patients with respiratory tract infections were selected for the study (73 males and 49 females). 45.9% of which were infants-toddlers (n=56). The most common diagnosis was pneumonia unspecified (n=32), followed by acute tonsillitis (n=24) and otitis media (n=22). 52 microorganisms were isolated from clinical samples, 14% being *Pseudomonas aeruginosa* and 13% *Streptococcus pneumoniae*. 171 antimicrobials were prescribed during the study period. Penicillins were the most frequent (n=78), followed by Cephalosporins (n=45) and Macrolides (n=22). 6.897% resistance was detected among 87 files with culture and sensitivity tests, 30% of which were positively cultured, ranking resistance with 20%.

**Conclusion:**

Despite the results showing minimal resistance, antibiotic resistant organisms remains a global concern that needs to be addressed to prevent the spread of antimicrobial resistant infections.

**Keywords:** antibiotic, resistance, respiratory tract infection (RTI), community acquired (CA)

### A Prospective Analysis of Patients referred to Rapid Access Lung Cancer Clinic (RALC) with Hemoptysis

Parniya Arooj, Michael Henry, Marcus Kennedy, Kashif Khan

**Background:**

After completing a retrospective analysis of all cases referred to our RALC with hemoptysis in 2011-2012 (a quarter had hemoptysis and only a sixth had lung cancer), a prospective study was commenced.

**Methodology:**

A prospective study was carried out on all patients referred to RALC with haemoptysis from 2013-July 2015. The objective of the

study was to identify frequency of different causes of haemoptysis and the diagnostic yield of CT and standard bronchoscopy

**Results:**

All 153 patients were included (94males, 22 nonsmoker/77 ex-smokers/ 54 current smokers) The main causes of haemoptysis were bronchitis 46.9%, idiopathic 18.4%, Lung Cancer 17%, others 9.5%, bronchiectasis 8.2%. Furthermore, 23.5% (n=36) of patients presented with a single episode of haemoptysis, 41.8% (n=64) with non-persistent ( 2 weeks ) hemoptysis. Lung cancer patients were more likely to have persistent hemoptysis (p= 0.034). The specificity of CT scans for lung cancer was 100%, however 5 patients had false negative standard bronchoscopy with CT showing metastatic disease.

**Conclusion:**

A sixth of patient presenting with haemoptysis had lung cancer and more than half of this population has persistent haemoptysis. There were no false negative CT scans for lung cancer.

**Keywords:**

hemoptysis, etiology, lung cancer, bronchitis, unknown /no cause cause, RALC

### Standards of Rendering Medical Care in Thoracic Surgery, as the Instrument of Improvement of Quality of Rendered Medical Care

**Kairat Jarkeev, Asem Shakeyeva, Bulat Suleimenov.**

**Objective:**

Chronic obstructive bronchitis, COPD is an important moment in the development of bullous emphysema. With the complications which often have thoracic surgery. Every year in Kazakhstan comes to 17% of patients with the clinic of spontaneous pneumothorax, pneumo-hemothorax requiring emergency surgery.

**Purpose:**

Minimization of risk of medical and diagnostic influences

**Methods:**

Use of new technologies on the basis of the principles of evidential medicine endo VATS researches with manipulations: bleeding stop, pneumothorax elimination Radiological (digital roentgenogramm), computed tomography.

**Results:**

reduction of number of complications at traumas and diseases of a thorax, disability and mortality as a result of accidents and spontaneous pneumothorax; - decrease in quantity of fatal cases at polytraumas at the expense of the coordinated actions of various services, copresent in rendering medical care, transportation of victims according to the developed standard of the organization of the traumatologic and thoracic surgical help; - improvement of the organization and improvement of quality of diagnostics, treatment of victims with injuries of a thorax and at spontaneous pneumothorax

**Conclusion:**

Following to the clinical protocol of diagnostics and treatment at post-traumatic and spontaneous pneumothorax leads to reduction of number of complications at traumas and diseases of a thorax, disability and mortality as a result of accidents and spontaneous pneumothorax; Clinical value: development and deployment of the clinical protocol on diagnostics and treatment of post-traumatic and spontaneous pneumothorax with high evidential base (level. I A and II.B); introduction of "the gold standard" at pre-hospital level allowed to assist victims at the level of the international standards, to reduce number of disability, complications and mortality of the population at difficult injuries of a thorax and spontaneous pneumothorax

**Key words:** emergency surgical care, spontaneous pneumothorax, endo VATS

### Initiation of Bronchial Asthma Clinic in Primary Care: Successful training and Audit results

**Suhair Aloubad, MD, Aesha Almehairi, MD, Sara Kamal, MD, Sara Mohammed, MD, Mouayed Ibrahim, MD**

**Introduction:**

The prevalence of asthma in the world may be as high as 334 million (Global Burden of Disease Study 2008-2010). In UAE, there is no published data on the overall prevalence or control of asthma, except for a few studies. Of these, a cross sectional study (Bener A et al, 1994), involving 850 school children has found a 13.6% prevalence of diagnosed asthma in Emirati school children. Another survey, the AIR in UAE (Mahboub BS, 2010), which is part of the Asthma Insights and Reality in the Gulf and Near East (AIRGNE) survey, "The majority of patients had acute attacks and 40% had unscheduled emergency visits. Although 89% of asthmatics felt their general health was at least good, most of them had chronic symptoms and many had limitation of activities and loss of school/work days". The estimated total direct cost of treatment for asthma was approximately 88 million Dirham in a study on Cost of Asthma in Dubai, UAE (Mahboub BH, et al. 2013). The highest cost was related to the out-patient visits representing 37% of the total cost followed by hospital stay due to asthma (23%) and ER visits (20%). At Almamorah Health Care Clinic. An internal audit of nursing station workload at our PHC in January 2010 showed that 33% of patient load were attending for administration

of nebulization DAILY. The percentage in October 2011 increased to above 60%.

**Aims/Objectives:**

In order to address this escalating situation, to reduce patient morbidity and rising costs, bronchial asthma services became a focus of attention regionally by the Ministry of Health and locally at Almamorah Health Care Clinic, Ras Alkhaimah. These were directed at improvement of services through:

1. Primary objective Training staff in Assessment and Management of bronchial asthma to improve control among asthmatic patients to reach control targets.
2. Initiating a nurse-led/ specialized Bronchial Asthma Clinic that focused on patient education to reduce malpractice and improve patient management

**Methodology:** Using an action research methodology approach, evaluated through Kirkpatrick's levels one, two and three for the training. At level four Kirkpatrick's, an internal audit of the asthma clinic highlighted the intended outcome of this initiative that is bronchial asthma management improvement.

**Results:**

- Pre and post training assessment of nurses knowledge, attitude and practice on bronchial asthma management showed significant improvement as well as increased staff satisfaction.
- Pre clinic audit was conducted on April-June 2013 based on survey using asthma control test (ACT); showed that among 82 patients from our general outpatient clinic asthmatic patients only 40% were controlled.
- Asthma clinic was initiated in December 2013.
- Upon initiation patients with frequent exacerbations, inability to use inhalers or poor compliance and difficult to diagnose and treat cases were referred by general clinic physicians to the asthma clinic
- Internal audit was conducted in 2014, 2015. Audit parameters included, spirometry performance and overall patients control depending on ACT assessment. Total patients registered in the general clinic was about 280 by the end of 2015.
- Patients registered in the asthma clinic were 105 in 2015, 63 in 2014. Improved Control among uncontrolled BA patients in 2015 was 53% compared to 35% in 2014 (using ACT score >20 as a parameter of control). Spirometry was performed by 83.6% of our attending patients in 2015, compared to 57.1% in 2014.

**Conclusion:**

The anticipated organizational impact including, integration of specialized clinic services at the primary care level with minimal resources and improved patient and staff satisfaction, has been successfully achieved.

### Game on? Smoking Cessation through the Gamification of Health apps

**S Siddiqui, M Muntasir, Y Sherwani, M Ahmed, A El-Hilly, S Iqbal, Z Al-Fagih, O Usmani, A Eisingerich**

**Introduction:**

Smoking is responsible for 19% of all deaths in the UK, with a direct cost of £5.2 billion to the NHS. However, depressingly, there remains a significant gap between individuals desiring to quit smoking (~68%), and those actually successfully quitting (~3%). Increasing emphasis has been placed on behavioural therapy in smoking cessation efforts. mHealth aims to join today's arsenal of smoking cessation techniques. Many apps are utilizing 'gamification' (the use of game design elements in non-game contexts) as a tool to drive positive behaviour change. However, a significant knowledge gap currently remains concerning the effect of gamification on health behaviour. The objective of our study was to determine how the gamification of mHealth interventions leads to a change in health behaviour specifically with respect to smoking cessation

**Methods:**

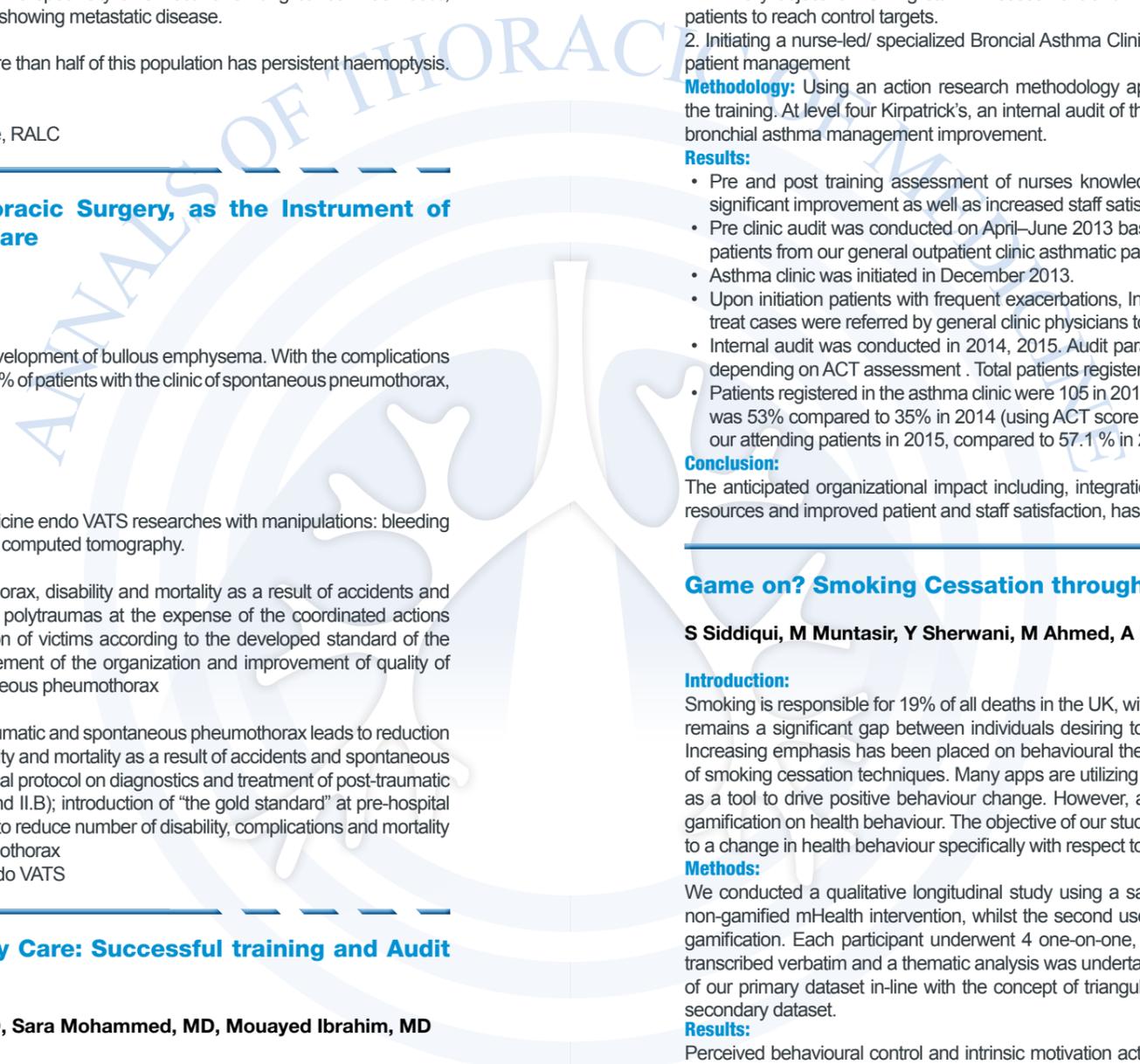
We conducted a qualitative longitudinal study using a sample of 16 smokers divided into two cohorts. The first cohort used a non-gamified mHealth intervention, whilst the second used a gamified mHealth intervention allowing us to isolate the effects of gamification. Each participant underwent 4 one-on-one, semi-structured interviews over a period of 5 weeks. Interviews were transcribed verbatim and a thematic analysis was undertaken. Three further data sources were harnessed to increase the validity of our primary dataset in-line with the concept of triangulation: a full systematic literature review, expert interviews, and a large secondary dataset.

**Results:**

Perceived behavioural control and intrinsic motivation acted as positive drivers to game engagement and consequently positive health behaviour. Importantly, external social influences exerted a negative effect. We identified three critical factors, whose presence was necessary for game engagement; purpose (explicit purpose known by the user), user alignment (congruency of game and user objectives), functional utility (a well-designed game). We summarise these findings in a framework, which we propose to guide the development of gamified mHealth interventions.

**Conclusion:**

Gamification holds the potential for low-cost, highly effective mHealth solutions that may replace or supplement the behavioural support component found in current smoking cessation programmes. Our proposed framework has been built on evidence specific to smoking cessation, but is versatile and can be extended to health interventions in other disease categories. Future research is now required to evaluate the effectiveness of the framework directly against current behavioural support therapy interventions in smoking cessation.



### Diagnostic yield of CTPA and value of pre-test assessments in predicting the probability of Pulmonary Embolism

Shanza Akram, Sameen Toor, Heba Harb, Zainab Altaha, Sara Abdulla, Ashraf Alzaabi, Imran Saleem

#### Content:

Acute pulmonary embolism (PE) is a common disease and can be fatal. The clinical presentation is variable and nonspecific, making accurate diagnosis difficult. Testing patients with suspected acute PE has increased dramatically. However, the overuse of some tests, particularly CT and D-dimer measurement, may not improve care while potentially leading to patient harm and unnecessary expense. CTPA is the investigation of choice for PE. Its easy availability, accuracy and ability to provide alternative diagnosis has lowered the threshold for performing it, resulting in its overuse. Guidelines have recommended the use of clinical pretest probability tools such as Wells score to assess risk of suspected PE. Unfortunately implementation of guidelines in clinical practice is inconsistent. This has led to low risk patients being subjected to unnecessary imaging, exposure to radiation and possible contrast related complications.

#### Aim:

To study the diagnostic yield of CTPA, clinical pretest probability of patients according to wells score and to determine whether or not there was an overuse of CTPA in our service. CT scans done on patients with suspected P in our hospital from 1st January 2014 to 31st December 2014 were retrospectively reviewed. Medical records were reviewed to study demographics, clinical presentation, final diagnosis, and to establish if Wells score and D-Dimer were used correctly in predicting the probability of PE and the need for subsequent CTPA.

#### Results:

100 patients (51 male) underwent CT PA in the time period. Mean age was 57 years (24-91 years). Majority of patients presented with shortness of breath (52%). Other presenting symptoms included chest pain 34%, palpitations 6%, collapse 5% and haemoptysis 5%. D Dimer test was done in 69%. Overall Wells score was low (2 - 6) in 15% of patients. Wells score was documented in medical notes of only 20% patients. PE was confirmed in 12% (8 male) patients. 4 had bilateral PE's. In high risk group (Wells > 6) (n=15), there were 5 diagnosed PEs. In moderate risk group (Wells >2)

#### Conclusion:

Yield of CT for pulmonary embolism was low in our cohort at 12%. A significant number of our patients who underwent CTPA had low Wells score. This suggests that CTPA is over utilized in our institution. Wells score was poorly documented in medical notes. CTPA was able to detect alternative pulmonary abnormalities explaining the patient's clinical presentation. CTPA requires concomitant pretest clinical probability assessment to be an effective diagnostic tool for confirming or excluding PE. Clinicians should use validated clinical prediction rules to estimate pretest probability in patients in whom acute PE is being considered. Combining Wells scores with clinical and laboratory assessment may reduce the need for CTPA.

**Key words:** Pulmonary embolism, wells score, CTPA, D Dimer

### Pneumoconiosis in a Dental –Lab Technician: A Case Report and 4 years Follow-Up

Salma Taha, MD, Mona Al-linjawi, MD, FCCP

#### Content:

Mechanical dentistry as a risk factor for developing pneumoconiosis has been described in literature since 1939(1). Prevalence is thought to be as much as 10% in 893 patients studied in recent Turkish case series. However in our region limited data is available. In our case we describe a 39 years old polish gentleman, dentist by profession who presented with bilateral chest miliary shadows for evaluation. He was asymptomatic at that time; however his exposure history was significant for 11 years history of exposure to inorganic dust as he worked as dental technician in a dental laboratory in Germany.

He also had 20 pack year history of cigarette smoking. Investigations showed widespread linear and nodular opacities over apical and posterior segments of bilateral upper lobes sparing the anterior segments of both lungs, with bilateral hilar and subcarinal lymphadenopathy. Spirometry, lung volumes and lung CO diffusion capacity were normal apart from mild air trapping. Bronchoscope ruled out any bacterial, fungal or tuberculous infection and surgical lung biopsy confirmed the diagnosis of pneumoconiosis secondary to silicosis exposure.

However mineralogical analysis to rule out other dust or metal exposures was not possible. Over the 4 years follow up patient remained mildly symptomatic, his lung function dropped by 200 ml and his DLCO changed from 85 ml/mmHg/min to 65 ml/mmHg/min indicating a minimal drop in gas exchange lung function. In a conclusion our case is an example of silica related interstitial lung injury, which occurred secondary to dental lab exposures. Dental laboratories often have poor ventilation systems and organic dust and metal exposure can exceed the internationally accepted limits. We encourage physicians to screen all dental technicians with a chest x-ray and lung spirometry for early on detection and/or prevention of serious lung damage.

### Locally Made Inexpensive Stethoscope Simulator

Tarig Eltoun, Yagoub Fadelelmoula

#### Introduction:

Auscultation with Stethoscope is an indispensable tool for optimal management of cardiopulmonary patients. However, the acquisition of sufficient training in cardiopulmonary auscultation is not straightforward during undergraduate training, because of technical and ethical problems. Moreover, the use of commercial stethoscope simulators is limited by their high cost. In order to overcome these limitations, I realized a low-cost stethoscope simulator to acquire and maintain the basic skill to cardiopulmonary patients. The aim is to describe the development and verify a low-cost and high-fidelity locally developed stethoscope simulator for cardiopulmonary auscultation developed by respiratory medicine physician in the department of respiratory care, Almaarefa Colleges, Saudi Arabia.

#### Methods:

The hardware part of the stethoscope simulator was made of normal clinical stethoscope (MDF 747XP Acoustica Stethoscope by MDF instruments, USA) and commercially available wireless Bluetooth head set device (ML2 Bluetooth device by Platronics, China). The Bluetooth head set will be re-engineered so that it can fit in 4 mm diameter hole in the conducting tubes of the stethoscope. The software is MS PowerPoint single slide presentation which was carefully designed to work as computer human interface for the stethoscope simulator. The playable sound tracks in this software were selected from high quality real human cardiopulmonary sound records which were tested and validated during the project. The stethoscope simulator was verified by the inventor, and a panel of expert physicians and respiratory therapists was asked to evaluate the simulator for physical attributes and realism of auscultation sounds produced by the simulator.

#### Results / expected outcome:

This stethoscope simulator allows medical and respiratory care students to perform cardiopulmonary auscultation in virtual reality with a high fidelity and at low-cost. The stethoscope simulator was verified by the group experts physicians and respiratory therapists, and they agreed upon its physical attributes and realism of cardiopulmonary sound produced.

#### Discussion:

Experts reported high satisfaction with their experience using this stethoscope simulator. Primary evidence suggests that this stethoscope simulator is a useful tool that can be integrated into bedside teaching and clinical skill lab to facilitate learning this important clinical skill. To my knowledge this is the first low-cost simulator of its type. There are several stethoscope simulators for training in auscultation skills in cardiopulmonary medicine, e.g. Sim Scope and Heart and Lungs Sounder. In comparison to other stethoscope simulators, the reported one is inexpensive and useful tool for easy training of auscultation skills in cardiopulmonary medicine, especially when there is limitation of resources.

### Chronic Cough: Common Causes in Sudanese Young Adults

Tarig Eltoun, Yagoub Fadelelmoula

#### Introduction:

Chronic cough has been reported to be the fifth most common complaint seen by primary care physicians. The definition of chronic cough is controversial; it has been characterized as a cough for 3 weeks or more but recently, Irwin and Madison proposed that the period be increased to 8 weeks. Diseases causing chronic cough include asthma, eosinophilic bronchitis, gastro-oesophageal reflux disease, postnasal drip syndrome or rhinosinusitis, COPD, pulmonary fibrosis, lung tumors, tuberculosis and bronchiectasis. Doctors should always work towards a clear diagnosis, considering common and rare illnesses. In some patients, no cause is identified, leading to the diagnosis of idiopathic cough. However, no studies have investigated the incidence of cough in public or private sector clinics in Sudan and the proportion of patients visiting specialist chest physician for chronic cough is still unknown but remains important in estimating the number of subjects with chronic cough to warrant advanced chest physician consultations and for assessing chronic cough burden on secondary health care system.

#### Objectives:

This study was carried out to assess incidence of specialist chest physician visits attributable to chronic cough and to characterize patients and their underlying causes for chronic cough.

#### Methods:

We did 1115 consultations during the study period in our private pulmonology clinic setting in Khartoum North, Sudan. One hundred and fifty subjects (mean age 40 +/-5 years) who presented with chronic cough as the main complaint were assessed clinically and investigated according to the suspected diagnosis. The specific causes were confirmed by appropriate investigations, as well as response to specific therapy. If rhino-sinusitis was suspected, patients were then referred to otolaryngologist for an ENT examination with nasal endoscopy and / or sinus computed tomography.

#### Results:

One hundred and fifty patients with chronic cough were assessed (mean 41 +/-5 years). The frequency of chronic cough among clinic patients was 13% and it was more frequent in females than in males (7.3% and 5.7% respectively), and there was increase in chronic cough incidence with advancing age. Out of the 150 patients; 53 patients (35%) had chronic rhino-sinusitis; 43 patients (29%) had asthma and 30 patients (20%) had GERD. Chronic rhino-sinusitis was twice as frequent in males as in females (23% & 12% respectively).

**Conclusion:**

In our private pulmonary clinic setting chronic cough remains a common benign disorder with rhinosinusitis as its principal cause, followed by asthma and gastroesophageal reflux disease. The cause of chronic cough could be frequently outside the lower respiratory tract. The duration of cough and the age of patient are important in the diagnostic procedure of chronic cough.

**Keywords:** Cough, GORD, Causes, Risk Factors, Sudan

**New Smart Stethoscope: A Low Cost High fidelity Invention**

Tarig Eltoum, Yagoub Fadelelmoula

**Background:**

Simulation in health care has been advocated as a useful training tool, and specific manikin simulators have been developed for use in this role. Debriefing and repetition have been identified as key to achieving educational goals, while the technical features of manikin simulators can influence simulation outcomes, their cost and infrastructure requirements reduce their suitability in many situations. I describe an invention of a local solution using low cost wireless audio device and modified basic clinical stethoscope already available in the local market to make a high-fidelity and low cost smart stethoscope for training in cardiopulmonary auscultation.

**Invention Description:**

The hardware part of the smart stethoscope, will be made of normal clinical stethoscope (MDF 747XP Acoustica Stethoscope by MDF instruments, USA) shown in figure 1 and commercially available wireless Bluetooth head set device (ML2 Bluetooth device by Platronics, China) shown in figure 2. The Bluetooth head set will be re-engineered so that it can fit in 4 mm diameter hole in the conducting tubes of the stethoscope simulator as shown in figures 3. The software is a simple MS PowerPoint single slide presentation (figure 4) which is carefully designed to work as computer human interface for the stethoscope simulator. The playable sound tracks in this software were selected from high quality real human cardiopulmonary sound records which were tested in the first step of the project and will be validated in the 3rd step of the project (Table 1).

**Conclusion:**

There are several stethoscope simulators for the training of auscultation skills in cardiopulmonary medicine, e.g. Sim Scope and Heart and Lungs Sounder. In comparison to other stethoscope simulators, the reported one is a very cheap and useful tool for easy learning of auscultation skills in cardiopulmonary medicine when there is limitation of resources.

**Keywords:** Stethoscope, simulator, fidelity, cardiopulmonary

**Estimation of Hypoxemia for Patients with Interstitial Lung Diseases travelling by Air**

Yasser Elsaid, Prof. Mohamed A.Tag Eldin, MD, Yasser Abdel-Aziz, MD, Ayman A. Fargahly, MD

**Rationale:**

Travelling by air has become available to all persons even for diseased ones, with special precaution to certain types of these diseases. Individuals with pulmonary and cardiac disorders are particularly at risk of developing hypoxemia at high altitude.

**Aim of the Study:**

The aim of this study is to define specific recommendations that can be used as guidelines for patients with interstitial lung diseases travelling by air. These recommendations are going to be guided by the mathematical prediction of degree of hypoxemia in patients are going to face, while travelling aboard civil aircrafts.

**Patients and Methods:**

30 patients with different types of Interstitial Lung Diseases are going to be chosen from the outpatient clinic of the Air Forces Hospital. They are classified according to pulmonary function mainly F.V.C. % into two groups (group 1 from 51% to 55% & group 2 from 56% to 60%). The hypobaric chamber is equipped with O<sub>2</sub> supply for use in case of emergency with an accompanying staff of the chamber to help patients inside the chamber in cases of distress.

**Measurements and Main Results:**

Our work is a study of the degree of hypoxemia at certain altitude level in patients with interstitial lung disease in the year (2007&2008). 30 patients with different types of Interstitial Lung Diseases chosen from the outpatient clinic of the Air Forces Hospital based on clinical examination, chest x ray, chest C.T. scan, pulmonary function and transbronchial lung biopsy. After (4.5minute ) we reached to altitude of 8000 feet in the hypobaric chamber another arterial blood sample was taken from all patients as shown in table ( 2 ). The results were statistically analysed & regression equation is estimated to predict the patient level of hypoxemia from the data obtained at sea level . The total time of profile was 15 minutes (4.5 minutes ascend, 6 minutes for sampling and 4.5 minutes for descend). The rate of descent & ascent was ( 1778F./minute) to reach altitude of 8000 feet. The result was done statistically to compare changes in all elements of blood gases (pao<sub>2</sub>, paco<sub>2</sub>, and ph.) before and during the end of exposure to altitude 8000 feet. Comparison also was done statistically between groups [according to sex (male and female) and according to pulmonary function (group1 and group2 )].

**Conclusion:**

Hypobaric chamber is a very good mean to detect the degree of hypoxemia to the passengers mainly with lung diseases as interstitial lung diseases. The atmospheric pressure changes at high altitude explains the incidence of hypoxemia There was

significant difference in (pao<sub>2</sub>), and (PH) & non-significant difference (paco<sub>2</sub>), between the results before and at the end of exposure to altitude (8000 feet.) in the hypobaric chamber. Also there was high significant difference in (pao<sub>2</sub>) in relation to pulmonary function grouping only at the end of exposure to altitude (8000 feet.). Regarding to sex there was non-significant difference in all cases with different pulmonary function. But it was noticed that the degree of hypoxemia at this level don't necessitate the patients to use supplementary oxygen. With linear regression equation test we suspect the need for use supplementary oxygen needed above this level of altitude. In addition to reducing the risk of high altitude in the passengers with interstitial lung disease supplementary oxygen should be stand by at all the time of the trip.

**Recommendation:**

By using these data we can recommended that the patients of interstitial pulmonary fibrosis of (FVC)

**The Effect of Actigraphy Placement on Dominant versus Non-Dominant Hand with Concurrent Polysomnography**

Yousef Alqurashi, MS, RPSGT, Gregg Marshall, PhD, RRT, RPSGT, RST

**Introduction:**

Diagnosing sleep disorders using a cost-effective and convenient device has been a major challenge in the sleep field. Traditionally, sleep disorders are diagnosed by polysomnography. Though polysomnography is considered the gold standard for diagnosing sleep disorders, this method is expensive and requires continuous monitoring. Actigraphy, a watch-like device, typically worn on the wrist of the non-dominant hand has been used in sleep research over the past two decades. The placement of the actigraphy on non-dominant hand is a common practice, but was never tested on patients with sleep disorders. Therefore, we believe this study is the first to compare between the actigraphy on dominant and non-dominant hand using polysomnography as a reference.

**Study Objectives:**

To evaluate the accuracy of wrist actigraphy data on the dominant hand compared to the non-dominant hand using polysomnography as a reference.

**Design and Settings:**

Participants wore wrist actigraphy devices on the wrists of both hands, dominant and non-dominant, while undergoing overnight polysomnographic (PSG) sleep studies in the Texas State Sleep Center.

**Participants:**

Twenty-six adults (4 female) previously scheduled for a sleep study for diagnostic, split night, or continuous positive airway pressure (CPAP) titration with ages varying from 29 to 90 (mean 54, SD 15).

**Measurements:**

Outcome variables were total sleep time (TST), sleep efficiency (SE), and sleep onset latency (SOL). Pearson correlation was conducted to measure the correlation between actigraphy data from both hands and PSG.

**Results:**

A statistically significant correlation was observed between the actigraphy on the non-dominant hand and PSG in TST ( $r = .546$ ,  $P = .007$ ) and SE ( $r = .424$ ,  $P = .039$ ). SOL was not significantly correlated with PSG ( $r = .120$ ,  $P = .557$ ). Actigraphy data from the dominant hand were not significantly correlated to PSG for any of the three variables.

**Conclusion:**

The results of this study confirm the placement of a wrist actigraphy device on the non-dominant hand as the most accurate sleep diagnostic indicator. TST and SE sleep parameters showed the highest correlation with the PSG data. Researchers should be cautious referencing SOL from wrist actigraphy with PSG diagnostics, as a weak correlation was found between actigraphy and PSG. Further research regarding the best placement of actigraphy is needed with different populations and age groups.



**Pierre Fabre**  
Médicament

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