SOUVENIR PROGRAMME & ABSTRACT BOOK

MALAYSIAN THORACIC SOCIETY

WEBSITE: www.my-mts.org

9th Annual Congress

DATE

14 – 16 JULY 2006

THEME

UNEXPLORED RESPIRATORY FRONTIERS OF MALAYSIA

VENUE

Eastern & Oriental Hotel
Penang, Malaysia

Contents

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Message from the President of the Malaysian Thoracic Society

It is my great pleasure to welcome you to the 9th Annual Congress of the Malaysian Thoracic Society which is held on the island of Penang, the "Pearl of the Orient".

Professor Richard Loh and the Organising Committee have come up with an interesting and exciting scientific programme which covers a wide range of respiratory disorders relevant to our clinical practice in Malaysia. In line with the theme of the Congress, "Unexplored Respiratory Frontiers of Malaysia", we have invited a distinguished faculty of international, regional and local speakers to discuss issues such as asthma and COPD, respiratory infections including H5N1 infection, lung cancer, interstitial lung disease, non-invasive ventilation in children and respiratory research. Lung function testing and management of pleural diseases shall be covered in depth in the pre-congress workshops. Interesting adult and paediatric respiratory cases will be presented in the Grand Rounds. The oral presentation session and poster display provide a good opportunity for some of the participants to share their clinical experience and research findings.

I sincerely hope you will gain invaluable knowledge and skills at this Congress and work towards our common goal of elevating the standard of care for our patients with respiratory diseases. I also hope this Congress will provide you the opportunity to meet up with old friends and to make new ones. Lastly, I would like to express my sincere thanks to all who have lent their support and contribution to make this Congress a success.

PROFESSOR LIAM CHONG KIN

Message from the Organising Chairperson

A very warm welcome to our Annual Malaysian Thoracic Society Congress, the Ninth!

With the ambitious yet realistic theme of 'Unexplored Respiratory Frontiers in Malaysia', we seek to understand the various achievements to date pertaining to our concerted effort to raise the standard of respiratory care in Malaysia and the array of challenges that still lies ahead of us. More now than ever, is the borderless nature in the practice of respiratory medicine crossing countries and creed, and the rapid exchange of scientific news and knowledge among the medical community via internet, that we really have little excuse not to improve ourselves at every opportunity.

Apart from the chairing and speaking faculty, for whom we are extremely grateful, consisting of many international and local guests, we are having for the first ever, three pre-congress workshops and a special session devoted to an attempt to form a Malaysia Respiratory Research Network among interested parties. We hope you could hugely benefit from as well as thoroughly enjoy our 9th Congress held this year in this beautiful Penang island of Malaysia.

Once again, I thank you for your support for the Congress and the Malaysian Thoracic Society, and also not forgetting those of the various pharmaceutical and medical equipment companies, thank you very much, for helping to make the 9th Congress a success. God bless you all richly.

PROFESSOR RICHARD LOH LI CHER

Programme Summary

DATE / TIME	13 JULY 2006 THURSDAY	14 JULY 2006 FRIDAY	15 JULY 2006 SATURDAY	16 JULY 2006 SUNDAY
0800 – 0830			BALLROOM **PLENARY LECTURE 1**	BALLROOM **PLENARY LECTURE 2**
0830 – 0900				
0900 – 0930		BALLROOM	BALLROOM **SYMPOSIUM 1A** Respiratory Infections *[Bayer Healthcare]*	ARSHAK SUITE **SYMPOSIUM 1B** Non-invasive Ventilation (NIV) in Children	BALLROOM **COMBINED SYMPOSIUM 4** The Next Influenza Pandemic
0930 – 1000				
1000 – 1030		**PRE-CONGRESS WORKSHOP 2** Lung Function Test: From Basic to Advance		
1030 – 1100			**COFFEE**	**COFFEE**
1100 – 1130			BALLROOM **SYMPOSIUM 2A** Lung Cancer	ARSHAK SUITE **SYMPOSIUM 2B** Optimizing Treatment for Childhood Asthma	BALLROOM **COMBINED SYMPOSIUM 5** Year in Review
1130 – 1200				
1200 – 1230				
1230 – 1300		BALLROOM **LUNCH SATELLITE SYMPOSIUM** *[GlaxoSmithKline]*	BALLROOM **LUNCH SATELLITE SYMPOSIUM** *[Altana Pharma]*	BALLROOM **LUNCH SATELLITE SYMPOSIUM** *[Merck Sharp & Dohme]*
1300 – 1330		**FRIDAY PRAYERS**		
1330 – 1400				
1400 – 1430	PENANG HOSPITAL		BALLROOM **COMBINED SYMPOSIUM 3** Interstitial Lung Disease	
1430 – 1500		BALLROOM		
1500 – 1530			BALLROOM **Free Papers**	
1530 – 1600	**PRE-CONGRESS WORKSHOP 1** Hands-on Pleuroscopy Demonstration	**PRE-CONGRESS WORKSHOP 3** Practical Management of Pleural Diseases		
1600 – 1630			**TEA / POSTER DISCUSSION**	
1630 – 1700			BALLROOM **Adult Grand Round**	ARSHAK SUITE **Paediatric Grand Round**	
1700 – 1730		**TEA**		
1730 – 1800		BALLROOM **Malaysian Respiratory Research Network**	BALLROOM **16th MTS AGM**	
1800 – 1830				
1930 – 2230		BALLROOM **EVENING DINNER SYMPOSIUM** *[AstraZeneca]*	BALLROOM **DINNER SATELLITE SYMPOSIUM** *[Boehringer Ingelheim / Pfizer]* **CONGRESS DINNER**	

Daily Programme

13 JULY 2006 ■ THURSDAY

1400 – 1800	**PRE-CONGRESS WORKSHOP 1** **Hands-on Pleuroscopy Demonstration** *Coordinator: Dato' Dr Abdul Razak Muttalif*	PENANG HOSPITAL
	Demonstrator: Dr Lee Pyng [Singapore]	

14 JULY 2006 ■ FRIDAY

0900 – 1230	**PRE-CONGRESS WORKSHOP 2** **Lung Function Test: From Basic to Advance** *Chairpersons: Dr Fauzi Mohd Anshar / Dr Rosalind Toh*	BALLROOM
0900 – 0910	Introduction *Dr Fauzi Mohd Anshar* [Kuala Lumpur, Malaysia]	
0910 – 0930	Lung Function Test – Part 1 (Basic) *[page 14]* *Dr Tengku Saifudin Tengku Ismail* [Selangor, Malaysia]	
0930 – 0950	Lung Function Test – Part 2 (Advanced) *Dr Pang Yong Kek* [Kuala Lumpur, Malaysia]	
0950 – 1010	Lung Function Tests in Children *Dr Asiah Kassim* [Kuala Lumpur, Malaysia]	
1010 – 1030	Lung Function Testing in Clinic – How Do I Do It? *Dr Zainudin Md Zin* [Selangor, Malaysia]	
1030 – 1100	**TEA**	
1100 – 1200	**Practical Demonstrations**	
1100 – 1120	Simple Lung Function (Spirometry)	
1120 – 1140	Lung Volume and Transfer Factor	
1140 – 1200	Painless Radial Artery Puncture	
1200 – 1230	**Quiz & Examples of Lung Function Tests for Interpretation** *Moderator: Dr Fauzi Mohd Anshar*	
1230 – 1430	**LUNCH SATELLITE SYMPOSIUM *[GlaxoSmithKline]*** *Chairperson: Prof Richard Loh* Paradigm Shift in Asthma Management – Towards a Control Centric Disease Management *Prof Liam Chong Kin* [Kuala Lumpur, Malaysia]	BALLROOM
	FRIDAY PRAYERS	

Daily Programme (continued 14 July 2006, Friday)

1430 – 1700	**PRE-CONGRESS WORKSHOP 3** **Practical Management of Pleural Diseases** *Chairpersons: Prof Liam Chong Kin / Dr Zainudin Md Zin*	BALLROOM
1430 – 1500	Management of Pneumothorax *Dr Lee Pyng* [Singapore]	
1500 – 1530	Pleural Space Infections *[page 15]* *Prof Richard Loh* [Negeri Sembilan, Malaysia]	
1530 – 1600	The Role of Pleuroscopy in Pleural Disease *Dr Lee Pyng* [Singapore]	
1600 – 1630	Surgical Role in Pleural Diseases Including Thoracoscopy *Dr David Khoo* [Selangor, Malaysia]	
1630 – 1700	Treatment of Malignant Pleural Effusion *Dr Lee Pyng* [Singapore]	
1700 – 1730	**T E A**	
1730 – 1830	**MALAYSIAN RESPIRATORY RESEARCH NETWORK** *Chairperson: Prof Richard Loh* • Is it Possible to be a Full time Clinician and an Active Researcher at the Same Time? *[page 15]* *Prof Martyn R Partridge* [London, United Kingdom] • Priority Area for Respiratory Research in Malaysia – Potential for Collaboration *Datin Dr Aziah Ahmad Mahayiddin* [Kuala Lumpur, Malaysia]	BALLROOM
1930 – 2230	**EVENING DINNER SYMPOSIUM *[AstraZeneca]*** *Chairperson: Dato' Dr Abdul Razak Muttalif* Asthma – What are the Current Challenges *Prof Martyn R Partridge* [London, United Kingdom]	BALLROOM

Daily Programme

15 JULY 2006 ■ SATURDAY

0800 – 0845 **PLENARY LECTURE 1** BALLROOM

Chairperson: Prof Richard Loh

Self Management Education in Asthma and COPD *[page 16]*
Professor Martyn Partridge [London, United Kingdom]

0845 – 1015 **SYMPOSIUM 1A** BALLROOM

Respiratory Infections *[Bayer Healthcare]*

Chairpersons: Datin Dr Aziah Ahmad Mahayiddin / Dr Pang Yong Kek

- Combating Antibiotic Resistance: Worrying Issues Now and the Future *[page 17]*
  Prof Victor Lim [Kuala Lumpur, Malaysia]
- Treatment Options in Community Acquired Pneumonia: Current and Future *[page 17]*
  Dato' Dr Abdul Razak Muttalif [Penang, Malaysia]
- Melioidiosis: An Endemic Infection of Concern *[page 18]*
  Dr How Soon Hin [Pahang, Malaysia]

0845 – 1015 **SYMPOSIUM 1B** ARSHAK SUITE

Non-invasive Ventilation (NIV) in Children

Chairpersons: Dr Norrashidah Abd Wahab / Assoc Prof Jessie de Bruyne

- NIV: For Whom, How and When?
  Prof Lucy Lum [Kuala Lumpur, Malaysia]
- NIV: The Malaysian Experience:
  - Non-Invasive Ventilation: The UMMC Experience *[page 18]*
    Dr Anna Marie Nathan [Kuala Lumpur, Malaysia]
  - Non-Invasive Ventilation (NIV): The Institute of Paediatrics Experience *[page 19]*
    Dr Mariana Daud [Kuala Lumpur, Malaysia]
- NIV for Malaysian Children: A Consensus Statement *[page 19]*
  Dr Norzila Mohamed Zainudin [Kuala Lumpur, Malaysia]

1015 – 1045 COFFEE

1045 – 1215 **SYMPOSIUM 2A** BALLROOM

Lung Cancer

Chairpersons: Dr Ashari Yunus / Dr Cedric Gunaratnam

- The Emerging Role of PET Scan in Lung Cancer *[page 20]*
  Dr Mohd Ali Abdul Kadher [Penang, Malaysia]
- Management of Unresectable Lung Cancer *[page 20]*
  Dr Gurcharan Singh Khera [Kuala Lumpur, Malaysia]
- Lung Cancer in Malaysia: Why Are We Still Missing Them? *[page 21]*
  Dr Fauzi Mohd Anshar [Kuala Lumpur, Malaysia]

Daily Programme (continued 15 July 2006, Saturday)

1045 – 1215 **SYMPOSIUM 2B** ARSHAK SUITE
Optimizing Treatment for Childhood Asthma
Chairpersons: Dr Patrick Chan / Dr Anna Marie Nathan

- Allergy Testing; Is it Necessary and Allergen Avoidance, is it Effective? *[page 21-22]*
  Prof John O Warner [Southampton, United Kingdom]
- Childhood Asthma – Which Clinical Outcome Measures to Aim For? *[page 22]*
  Assoc Prof Jessie de Bruyne [Kuala Lumpur, Malaysia]
- The Effects of Treatment on Inflammation Markers and Their Clinical Relevance *[page 23]*
  Prof John O Warner [Southampton, United Kingdom]

1215 – 1400 **LUNCH SATELLITE SYMPOSIUM *[Altana Pharma]*** BALLROOM
Chairperson: Prof Liam Chong Kin

Ciclesonide: Does Everyone Need Combination Therapy?
Dr Simon D Bowler [Brisbane, Australia]

1400 – 1500 **COMBINED SYMPOSIUM 3** BALLROOM
Interstitial Lung Disease
Chairpersons: Dr Norhaya Mohd Razali / Assoc Prof Roslina Abd Manap

- Spectrum of Interstitial Lung Diseases: The Story So Far *[page 24]*
  Prof Dong-Soon Kim [Seoul, South Korea]
- Treatment of Idiopathic Pulmonary Fibrosis *[page 24]*
  Prof Dong-Soon Kim [Seoul, South Korea]

1500 – 1600 **FREE PAPERS** *[page 27-31]* BALLROOM
Chairpersons: Dr Fauzi Mohd Anshar / Dr Patrick Chan

1600 – 1630 **T E A / POSTER DISCUSSION**

1630 – 1730 **ADULT Grand Round** BALLROOM
Chairpersons: Assoc Prof Roslina Abd Manap / Dr Zainudin Md Zin

1630 – 1730 **PAEDIATRIC Grand Round** ARSHAK SUITE
Chairperson: Dr Rus Anida Awang

1730 – 1830 **16TH MTS AGM** BALLROOM

1930 – 2230 **DINNER SATELLITE SYMPOSIUM *[Boehringer Ingelheim / Pfizer]*** BALLROOM
Chairperson: Prof Liam Chong Kin

Prospects for Disease Modification in COPD – The Evidence for Tiotropium
Dr Antonio Anzueto [Texas, USA]

CONGRESS DINNER BALLROOM

Daily Programme

16 JULY 2006 ■ SUNDAY

0800 – 0845 **PLENARY LECTURE 2** BALLROOM

Chairperson: Dato' Dr Abdul Razak Muttalif

Respiratory Medicine in Malaysia: Past, Present and Future *[page 25]*
Prof Liam Chong Kin [Kuala Lumpur, Malaysia]

0845 – 1015 **COMBINED SYMPOSIUM 4** BALLROOM

The Next Influenza Pandemic

Chairpersons: Prof Liam Chong Kin / Dr Leong Oon Keong

- Avian Influenza (H5N1): Epidemiology, Clinical Spectrum and Treatment *[page 25-26]*
  Dr David Hui [Hong Kong]
- The Next Pandemic Flu: Are We Prepared? *[page 26]*
  Dr Zainudin Abdul Wahab [Putrajaya, Malaysia]

1015 – 1045 **C O F F E E**

1045 – 1215 **COMBINED SYMPOSIUM 5** BALLROOM

Year in Review

Chairpersons: Prof Richard Loh / Dr Norzila Mohamed Zainudin

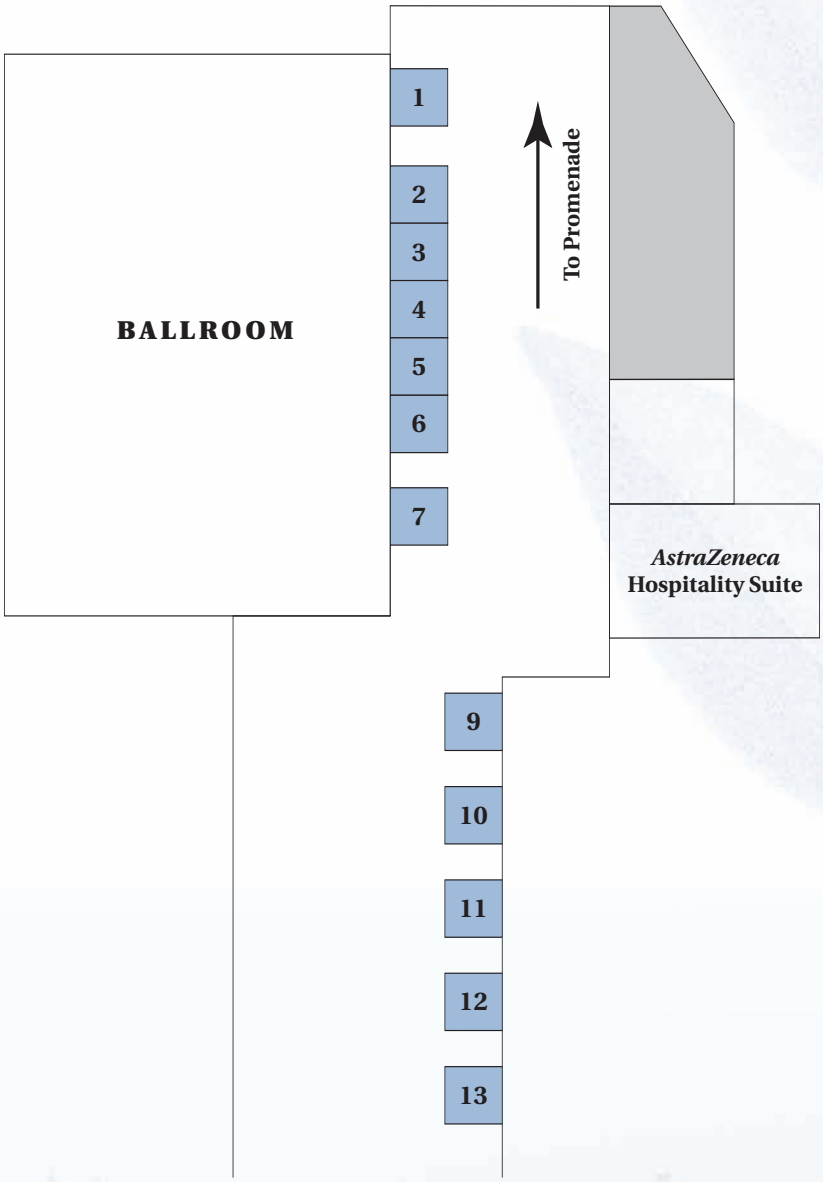
- Adult
  Assoc Prof Roslina Abd Manap [Kuala Lumpur, Malaysia]
- Paediatric
  Dato' Dr Azizi Omar [Selangor, Malaysia]

1215 – 1400 **LUNCH SATELLITE SYMPOSIUM *[Merck Sharp & Dohme]*** BALLROOM

Chairperson: Dr Norzila Mohamed Zainudin

Management of Paediatric Asthma – Making the Right Choices
Prof John O Warner [Southampton, United Kingdom]

Floor Plan & Trade Display
< Ballroom>



BOOTH STAND	COMPANY
1	Merck Sharp & Dohme Corp
2 & 3	GlaxoSmithKline Pharmaceutical Sdn Bhd
4	Abbott Laboratories Sdn Bhd
5 & 6	Boehringer Ingelheim Division/ Pfizer (Malaysia) Sdn Bhd
7	Altana Pharma

BOOTH STAND	COMPANY
9	3M Malaysia Sdn Bhd
10	Bristol-Myers Squibb (M) Sdn Bhd
11	T-Medic Sdn Bhd
12	Apex Pharmacy Marketing
13	Somnetec

Floor Plan & Trade Display
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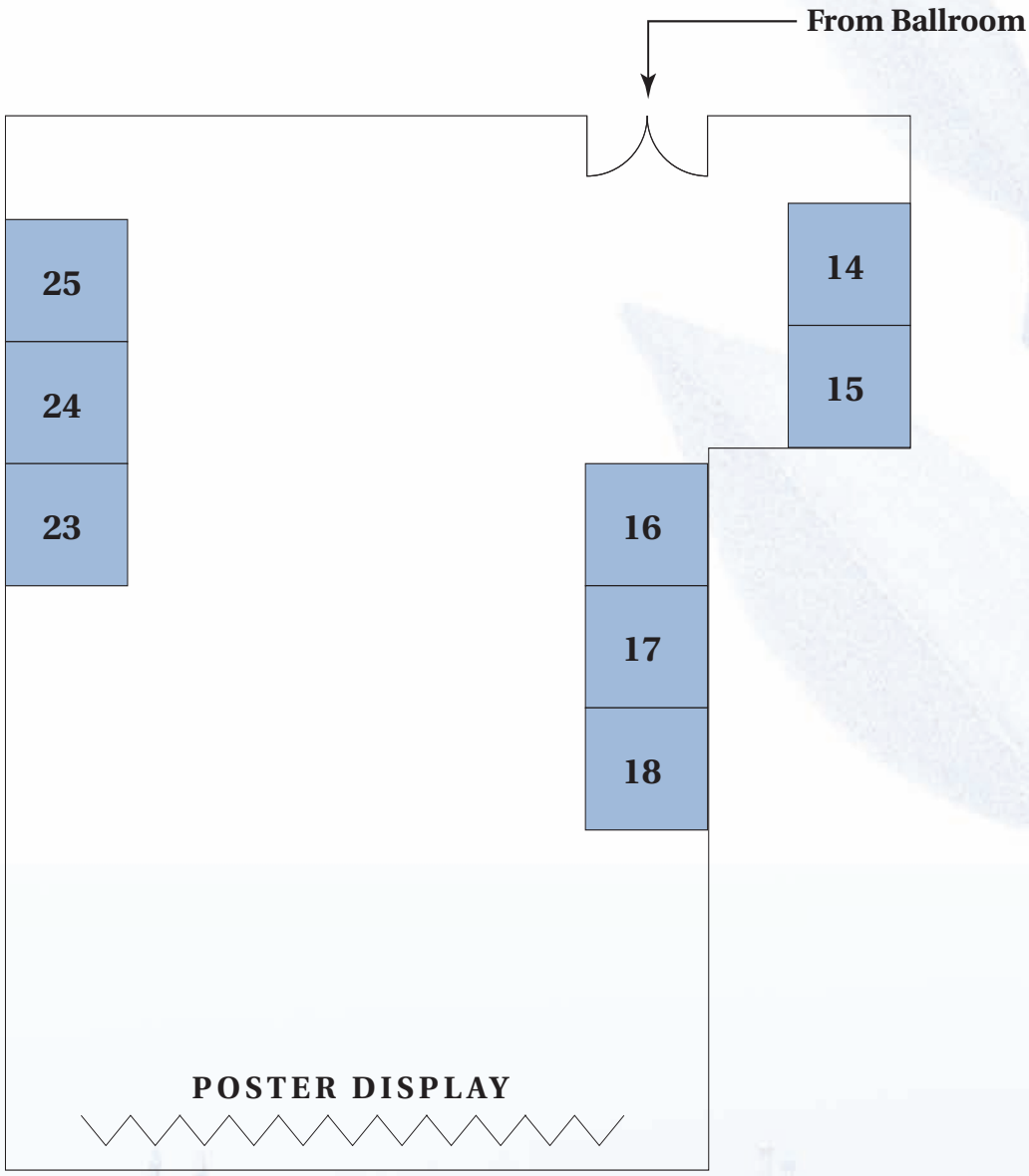

BOOTH STAND	COMPANY
14	Insan Bakti Sdn Bhd
15	Kyowa Hakko (M) Sdn Bhd
16	Endodynamics (M) Sdn Bhd
17	Sanofi Aventis (M) Sdn Bhd

BOOTH STAND	COMPANY
18	Emerging Pharma Sdn Bhd
23	Schering-Plough Sdn Bhd
24	Delta Medisains (M) Sdn Bhd
25	Utama Associates Sdn Bhd

THANK YOU

The Organising Committee of the 9th Annual Congress of the Malaysian Thoracic Congress expresses its deep appreciation to the following for their support and contributions:

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PRE-CONGRESS WORKSHOP 2

LUNG FUNCTION TEST: FROM BASIC TO ADVANCE

LUNG FUNCTION TEST – PART 1 (BASIC)

Tengku Saifudin Tengku Ismail

Faculty of Medicine, Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia

Lung function tests are generally underutilized. Many doctors are uncomfortable interpreting these tests and hence, the tests are not ordered. Lung function tests can answer important clinical questions as they detect and quantify abnormalities of the respiratory system. The test results may suggest the presence of certain conditions and must be evaluated in the light of clinical history, physical examination, radiological findings and laboratory results before certain clinical diagnosis is made.

The technician conducting the lung function test must be trained and able to detect submaximal effort as the patient is a very active participant of the test.

Spirometry is used to measure the rate at which the lung changes volume during forced breathing maneuvers.

INTERPRETING LUNG FUNCTION TESTS

There are a number of approaches to interpreting lung function tests. One of the simplest approaches I adopt to teach medical students are as below (1).

Step 1. the Forced Expiratory Vital Capacity (FVC)

1. Is it normal? If so, any significant restriction is ruled out.
2. Is it reduced? If so, this finding could be either obstruction or restriction.

Step 2. Examine the Forced Expiratory Volume in 1 second (FEV1)

1. Is it normal? If so, any significant obstruction or restriction is ruled out.
2. Is it reduced? If more than 20% often due to airway obstruction. However this could be caused by restrictive disease, and thus the FEV1/FVC ratio needs to be evaluated. Total Lung Capacity (TLC) should be checked first, as TLC increased more than 20% favors obstruction and a normal/increased TLC rules out pure restrictive disease.

Step 3. Examine the FEV1/FVC ratio

1. If the absolute ratio is less than 75%, an obstructive process is present.
2. If the ratio is normal, this usually excludes obstructive process.
3. Otherwise, the ratio is normal or increased in a pure restrictive process.

   A reduced FVC and FEV1, normal FEV1/FVC ratio, normal response to bronchodilator and a reduced TLC or DLCO indicates a restrictive process.

Step 4. Examine the response to bronchodilator

1. Is the response normal (that is, 0-15% increase in FEV1)?
2. Is the response increased (FEV1 increased by 12% and 200mL)? If so, this suggests hyperreactive airways.

Step 5. Examine the Diffusing capacity of carbon monoxide (DLCO)

1. Is it normal? This is consistent with normal lungs. However, may also be normal in chronic bronchitis, asthma, major airway lesions, neuromuscular disease and obesity.
2. Is it reduced? This is characteristic of restrictive disorders. It is also consistent with emphysema and pulmonary vascular disease. However, it also can be reduced in chronic bronchitis, asthma, COPD and heart failure.
3. Is it increased? This can occur in some patients with asthma, some very obese subjects and pulmonary hemorrhage.

REFERENCE

1. Robert E. Hyatt. Interpretation of Pulmonary Function Tests: A practical guide. 2nd edition.
2. Standardization of Spirometry. Am J Resp Crit Care Med 1995; 152: 1107-36
3. V. Brusasco, R. Crapo and G. Viegi .Series " ATS/ERS Task Force: Standardisation of Lung Function Testing". Standardisation of spirometry. Eur Respir J 2005; 26: 319–338

PRE-CONGRESS WORKSHOP 3

PRACTICAL MANAGEMENT OF PLEURAL DISEASES

PLEURAL SPACE INFECTIONS

Richard Li-Cher Loh

International Medical University, Clinical School, Seremban, Negeri Sembilan, Malaysia

Pleural space infections are not uncommon, occurring probably up to 20% or more in pneumonia. A bacterial aetiology is almost always the case and western figures indicate *Streptococcus pneumoniae* as the commonest organism identified in adult[1] and children[2]. In Malaysia, two separate studies have shown that mycobacterium tuberculosis (TB) was identified at a surprisingly high frequency i.e. 44%[3] and 49%[4] in hospitalized patients with exudative pleural effusion. Another study[5] showed that up to 61% of TB pleural effusion did not have any lung infiltrates, suggesting that this represents a primary, not 'reactivated' infection. This calls for the need for a high index of suspicion for TB in our patients. Non-bacterial causes of pleural infection are few and far in between. Interestingly, in a retrospective review of 62 children diagnosed with Severe Acute Respiratory Syndrome (SARS) from Toronto, Singapore and Hong Kong, only one patient had pleural effusion[6]. Appropriate antibiotics and adequate pleural drainage remains the mainstay of management and the risk of developing empyema is probably small if managed early and appropriately. The initial enthusiasm in intrapleural fibrinolytic therapy in preventing surgical intervention or mortality has waned following a recent trial[7], largest to date, that casts doubts on its effectiveness when compared to surgical intervention. It remains to be seen how significant an impact pleuroscopy (or medical thoracoscopy) would be to our management of pleural space infection.

REFERENCES

1. Maskell NA et al. The survival significance of different bacterial classes in pleural infection: data from the MRC/BTS MISTI trial cohort. Thorax 2005; 60: ii31
2. Eastham KM et al. Clinical features, aetiology and outcome of empyema in children in the north east of England. Thorax 2004; 59: 522-5
3. Liam CK et al. Causes of pleural exudates in a region with a high incidence of tuberculosis. Respirology, 2000; 5(1):33-8
4. Ngoh HL. Pleural effusion in 100 Malaysian patients. Med J Malaysia, 1991; 46(4):301-8.
5. Liam CK et al. Tuberculous pleurisy as a manifestation of primary and reactivation disease in a region with a high prevalence of tuberculosis. Int J Tuberc Lung Dis. 1999; 3(9):816-22.
6. Babyn PS et al. Severe acute respiratory syndrome (SARS): chest radiographic features in children. Pediatr Radiol. 2004; 34(1):47-58.
7. Maskell NA et al. U.K. controlled trial of intrapleural streptokinase for pleural infection. N Engl J Med 2005; 352: 865-74.

MALAYSIAN RESPIRATORY RESEARCH NETWORK

IS IT POSSIBLE TO BE A FULL TIME CLINICIAN AND AN ACTIVE RESEARCHER AT THE SAME TIME?

Martyn R Partridge

Department of Respiratory Medicine, Respiratory Health Services Research Group, Faculty of Medicine, Imperial College, NHLI at Charing Cross Hospital, London, United Kingdom

Matching research outputs to institutions by use of lead author addresses shows that outputs emanate in the main from major teaching hospitals and scientific institutes. This does not of course mean to say that all of the work is done in such institutes but the lead appears to come from researchers in those institutes. However the patients seen in such establishments may be tertiary referrals and in many countries there is an increasing tendency for care to be offered to patients nearer to their home, and in some countries this has also led to a significant shift of both patients and resources from hospitals to the community. These patients represent a valuable commodity in that much can be learned from clinical studies of the natural history of disease and from clinical studies of effective interventions offered in a more realistic manner to patients being managed in primary care and in the community and in district hospitals. However the support of research assistants, data clerks, statisticians is often not available in such an environment and research networks with appropriate central resources then become important. Such networks permit busy clinicians to maintain an interest in clinical science and to be involved in studies without them always having to be involved in the bureaucracy of Ethics Committee applications, data interpretation and accessing funds.

In respiratory medicine we need to ensure that funding bodies understand the diversity and burden of respiratory illness and in many countries there is evidence that funding of respiratory research is patchy and rarely directed by the disease burden. Many publications of research in lung diseases such as diffuse parenchymal lung disease and sleep apnoea for example, have no acknowledgments to a funding source.

PLENARY LECTURE 1

SELF MANAGEMENT EDUCATION IN ASTHMA AND COPD

Martyn R Partridge

Department of Respiratory Medicine, Respiratory Health Services Research Group, Faculty of Medicine, Imperial College, NHLI at Charing Cross Hospital, London, United Kingdom

The burden of respiratory ill health has changed over the last three or four decades from a burden of infectious respiratory ill health, to a burden of non-communicable lung diseases. Whilst this has happened at different rates in different countries at different times, much respiratory ill health now reflects asthma, COPD, diffuse parenchymal lung disease and sleep disorders, and these need different approaches from the services that are appropriate for a burden of largely acute infective respiratory illness.

Long term disorders may necessitate more emphasis upon:

- Selecting effective and easy to use treatment
- Giving control to the person with the condition (self management)
- Enhancing compliance
- Group support
- Regular follow up using new methods and new technologies.

The concept of self management education is sometimes not easily apparent to the health professional. The way we should think of this is to recognise that most people with asthma and COPD probably only have on average some 30 minutes contact with a healthcare professional in any one year. This means that for the other 364 days, 23 hours and 30 minutes, the patient is self managing their own condition and we have a responsibility to ensure that they have the skills, the training, the tools and the knowledge to enable themselves to do that satisfactorily. In asthma at least this is not a new concept, and in the first British Asthma Guidelines published in the British Medical Journal in 1990, the recommendation was that "as far as possible patients should be trained to manage their own treatment rather than be required to consult their doctor before making changes". This is reiterated in the global strategy for asthma management, and this is based upon 36 randomised controlled trials of self management education in asthma compared with usual care showing overwhelmingly better outcomes in those who have had self management education. The results are best where self management education includes the person with asthma receiving a personalised written asthma action plan.

The situation in COPD is less clear where a Cochrane Review found eight studies of self management education with too little data to suggest positive benefit in terms of ER visits, hospitalisations, days lost from work, lung function etc. but it should be noted that these studies are not only few in number, but they involve few patients and indeed in only two of those studies were action plans given to patients with COPD. In one of those the action plan used was an asthma action plan and did not include advice about use of antibiotics (an intervention which a further Cochrane Review by Ram F et al. in April 2006 has shown to be beneficial). When self management education has been combined with other interventions such as pulmonary rehabilitation and follow up as in a multi centre French-Canadian study, significant benefits can be seen in terms of reattendance in an Emergency Department and readmission.

SYMPOSIUM 1A
RESPIRATORY INFECTIONS

COMBATING ANTIBIOTIC RESISTANCE: WORRYING ISSUES NOW AND THE FUTURE

Victor Lim
International Medical University, Kuala Lumpur, Malaysia

Antibiotic resistance in hospital and community settings is an increasing clinical challenge worldwide. Few new classes of antibiotics have been discovered in recent years and there are fears we may be returning to the pre-antibiotic era.

Streptococcus pneumoniae is the commonest cause of community-acquired pneumonia. Penicillin resistant strains are now found worldwide and there is increasing resistance to macrolides and fluroquinolones. Antibiotic resistant pneumococci are common in Asia. There has also been an increase in H. influenzae resistant strains in SE Asia. In Malaysia the commonest causes of ventilator-associated pneumonia are Acinetobacter baumanni and Pseudomonas aeruginosa. There is a worrying trend of increasing carbapenem resistance in these organisms.

Factors driving resistance would include overuse of antibiotics for the treatment of upper respiratory tract infections. Suboptimal doses and long duration therapy also predispose to resistance. There is also evidence of a high prevalence of inappropriate antibiotic use and self-medication in this region. Promoting appropriate antibiotic use is therefore crucial. Antibiotics should be used at optimal doses and durations based on pharmakokinetic and pharmacodynamic principles. Eradication of the bacteria is a primary objective as dead bacteria cannot acquire resistance. The trend should be towards higher doses and shorter durations.

SYMPOSIUM 1A
RESPIRATORY INFECTIONS

TREATMENT OPTIONS IN COMMUNITY ACQUIRED PNEUMONIA: CURRENT AND FUTURE

Abd Razak Muttalif
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Several Community Acquired Pneumonia (CAP) guidelines are available currently worldwide and a local guideline was presented at the last annual meeting. The common features of these guidelines are antibiotic choice, route of antibiotic administration, resistance potential co-morbid illness and antibiotic cost. Of these the most important is decreasing antibiotic resistance and in controlling the cost of therapy. Pharmacokinetic and clinical equivalence of antibiotics with high bioavailability determines the antibiotic resistance. In choosing an antibiotic, the antibiotic spectrum is vital. It should have a high activity against the usual typical pathogens. Though pneumococci are the single most common bacterial pathogen, other local epidemiological data are important in devising treatment guidelines to avoid excessive coverage of rare pathogens.

Comorbidities cause confusion in the choice of antibiotics, additional therapy is sometimes added to some guidelines. Adding another drug because the patient has advanced lung, heart, liver or renal disease cause confusion as the therapy should be targeted to the pathogen and not the morbidities.

One of the most important advance in the treatment of CAP is the IV to oral switch. With the new antibiotics which have high bioavailability, rapid and efficient oral absorption, this switch is possible. This IV to oral switch have several advantages: decreasing hospital stay, eliminating phlebitis, decreasing costs, less complications and happier patients.

The future in treating CAP is empiric, oral monotherapy with a carefully chosen agent that has the right spectrum. The agent should have good pharmacokinetic properties, available orally and IV, has low resistance potential and is moderately priced. The guidelines need to be modified locally according to local circumstances.

SYMPOSIUM 1A

RESPIRATORY INFECTIONS

MELIOIDOSIS: AN ENDEMIC INFECTION OF CONCERN

S H How

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Melioidosis is caused by the gram-negative bacillus, *burkholderia pseudomallei*. It is endemic in Northern Australia and Southeast Asia. In Northern Australia, the incidence of melioidosis is 16.5 per 100,000 populations per year as compared to 1.7 to 6.1 per 100,000 populations per year in Southeast Asia. It is more common in males and farmers. Diabetes mellitus is the commonest predisposing factor and pneumonia is the commonest clinical manifestation. Septic arthritis and abscess involving lymph nodes, liver, spleen and prostate are not uncommon. Rare presentations include mycotic aneurysm, pericardial effusion, psoas abscess and infected thyroid cyst. Mortality due to melioidosis is extremely high especially in the bacteraemic form (37% – 65%). 23% of patients had culture proven relapse with a yearly relapse rate of 15%.

Culture is the gold standard for diagnosis. Serology has been studied extensively but a high background of positive serology in the general population limits its usefulness in an endemic area. Definitive antibiotic treatment of melioidosis can be divided into an intensive phase and an eradication phase. High dose ceftazidime has replaced the conventional regimen after two randomised controlled trials showed that treatment with ceftazidime resulted in a 50% reduction in mortality of severe melioidosis. Other antibiotics of choice are co-amoxiclav, cefoperazone-sulbactam and imipenem. In a non-randomised retrospective study, meropenem treatment was associated with a lower mortality than ceftazidime in patients with severe sepsis. However, this study listed a few confounding factors, especially the use of granulocyte colony-stimulating factor (G-CSF), which might have contributed to the reduction in mortality. After at least 2 weeks of intensive therapy with intravenous drug, oral therapy of doxycycline and co-trimoxazole for 20 weeks should be commenced to prevent relapses.

SYMPOSIUM 1B

NON-INVASIVE VENTILATION (NIV) IN CHILDREN

NON-INVASIVE VENTILATION: THE UMMC EXPERIENCE

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Non-invasive ventilatory (NIV) support has been around since the 1800's with the use of the " Iron Lung" concept and popularised during the polio epidemic in America.

Since the 1980's this mode of ventilation has been replaced by the use of a mask applied either to the nose or face.

We have come a long way and presently, more than half of the children requiring long-term ventilation, use mask ventilation. Hence becoming more popular than negative pressure ventilation via a jacket and invasive ventilation via tracheostomy.

Although we have only started using this mode of ventilation since 2001, it is now commonly used in the acute and non-acute setting, in our institution.

In the paediatric ICU the 3 most common indications for use of NIV would be for pneumonia +/- heart failure, post-surgical patients to allow for early extubation and upper airway obstruction. Though our failure rate is 28%, this is particularly in oncological patients, children with other congenital problems in whom we have opted for palliative treatment. We have found NIV especially useful in allowing early extubation in patients with bronchomalacia, chronic lung disease and lung hypoplasia.

In the non-acute setting, NIV has allowed us to discharge patients with chronic lung problems home earlier than would be expected. It is disappointing, however, that we have not really seen a significant positive effect on weight gain. This is because a significant number of our children had feeding difficulties. Other than that all our parents were happy to go home on NIV and had no regrets thereafter. As expected, children with pulmonary and airway problems did very well compared to children with chest wall or neuromuscular problems. The biggest barriers to an early discharge home were insufficient funds, unsuitable housing and family difficulties.

As paediatricians we cannot underscore the importance of the home environment. The hospital, no matter how loving and caring the staffs are, is no place for any child.

SYMPOSIUM 1B

NON-INVASIVE VENTILATION (NIV) IN CHILDREN

NON-INVASIVE VENTILATION (NIV): THE INSTITUTE OF PAEDIATRICS EXPERIENCE

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Non- invasive ventilation (NIV) is a new form of ventilation in which external interfaces and positive pressure ventilator are used in contrast to conventional methods using endotracheal tube or via tracheostomy. Over the past decade, there are growing evidences that support the role of NIV in treating children with chronic respiratory failure of various causes, even though its role in acute hypoxic failure is less clear cut.

The goal of NIV is to achieve normocapnia during ventilation. It also improves gas exchange by increasing tidal volume, unloading respiratory muscles and possibly by resetting respiratory center chemosensitivity. It has been shown to give favourable impact on morbidity, survival and quality of life in adolescents and adult with neuromuscular disorders, including Duchenne Muscular Dystrophy. A recent report showed good mask tolerance and improve gas exchange over time in even small children with neuromuscular diseases.

In our centre, the Home Ventilation Programme was started in 2001. Up to date we have sent 66 patients on home ventilation; 44 children were on continuous positive airway pressure (CPAP) and 22 children on Bi-level positive airway pressure support (BIPAP).

The largest group of our patients that were discharged on BIPAP was children with neuromuscular diseases (10/23), followed with children with alveolar hypoventilation secondary to metabolic/genetic conditions. Ten patients were ventilated via tracheostomy while the remaining 13 were ventilated via nasal mask as interface. Currently, two children required full time ventilation while the remaining eighteen children required support mainly during sleep. Two died due to progressive illnesses.

Among CPAP patients, majority are due to severe sleep disordered breathing (SDB) due to obesity (33/44), followed by craniofacial anomalies (12/44). A retrospective analysis showed that the use of nasal CPAP in children with Obstructive Sleep Apnea Syndrome (OSAS) is feasible, effective and well-tolerated.

In this presentation, I will also highlight other important aspects which need careful assessment before sending children on home ventilation and the role of NIV in acute setting.

SYMPOSIUM 1B

NON-INVASIVE VENTILATION (NIV) IN CHILDREN

NIV FOR MALAYSIAN CHILDREN: A CONSENSUS STATEMENT

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Advances in medical knowledge and technology, have made it possible for critically ill children requiring ventilation to survive longer. As a result, children are being ventilated using various technological interventions ranging from those depending on supplemental oxygen to children who require long term ventilation. Many of these children that require long term mechanical aid ventilation when medically stable, can be managed at home

Paediatric Home Ventilation is a feasible option and can be a successful in a wide range of conditions. Technological advances have made respiratory care equipments to be better designed to accommodate home care needs. These machines are not only safe, but smaller and more user friendly to be used at home. Non-randomized studies have shown that it is cheaper to manage a chronically ventilated patient at home. Children who were on long term ventilation in hospitals, occupied intensive care beds; thus denying beds for the more acute urgent cases.

In Malaysia the number of children who requires long term ventilation cases is increasing. Since 2002, the respiratory unit in Paediatric Institute, HKL has discharged 17 patients on long term ventilation at home from various parts of the countries. Many of these children were on non invasive ventilation. In view of the needs and the cost implications to the hospitals and parents, we decided to develop a consensus on paediatric home ventilation. This is with the aims of developing a more uniform indications and management approach for children that may benefit from home ventilation as well as a proposal for a paediatric home ventilation program for Malaysia.

SYMPOSIUM 2A
LUNG CANCER

THE EMERGING ROLE OF PET SCAN IN LUNG CANCER

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Positron emission tomography (PET) is a functional imaging modality that provides mapping of glucose metabolism in the whole body. The glucose analogue fluorodeoxyglocose is labelled with the cyclotron produced, positron emitting radioisotope fluorine-18. The resulting radiopharmaceutical 2-^{18}F-fluoro-2-deoxy-D-glucose (FDG) is a substrate for glucose transport proteins (Glut) in cell membranes and accumulates intracellularly. It undergoes the same uptake as glucose but is metabolically trapped and accumulated in the cancer cell after phosphorylation by hexokinase. Increased metabolic activity in malignant tissue is accompanied by increased glucose uptake relative to that of surrounding normal tissue. This focal increase in glucose uptake can be identified with FDG PET scanning. PET scanning is now an important lung cancer-imaging tool. This presentation attempts to give an overview of the value of PET in the diagnosis and staging, detection of locoregional and distant metastasis, diagnosis for recurrence and the monitoring the response to treatment in lung cancer management.

SYMPOSIUM 2A
LUNG CANCER

MANAGEMENT OF UNRESECTABLE LUNG CANCER

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Unresectable Lung Cancer (ULC) generally refers to TNM stage 3 especially 3B.Treatment approaches include:

1. Neoadjuvant chemotherapy followed with concurrent chemoradiotherapy (CRT)
2. Upfront Concurrent CRT
3. Neoadjuvant chemotherapy followed by Surgery
4. Radiotherapy

The sequencing of chemotherapy and Radiotherapy has been investigated. Concurrent CRT has shown to be superior to sequential CT and RT. However due to potential toxicity of the combined treatment, case selection is essential. Growth factors and cell protector support is necessary, and adds to expenses. Newer Radiotherapy planning and delivery techniques are able to reduce radiation morbidity component of combined treatments thereby making treatment tolerable. 3-Dimensional Conformal Radiotherapy and IMRT (Intensity Modulated Radiotherapy) are examples of the new radiation techniques. Newer drugs including molecular Targeted agents are being tested in clinical trials.

There is another group of resectable but medically inoperable Lung Cancer. This group includes patients with stage 1 and 2 who are unfit for surgery or who refuse surgery. This group can be offered high dose stereotactic Radiotherapy with respiratory gating. (e.g. cyberknife radiosurgery). Although the latter approach is claimed to produce Local Control rates similar to resection, more data is awaited from ongoing multi-institutional trials including RTOG -0236 (Radiation Therapy Oncology Group).

Concurrent chemoradiotherapy is current standard of care for Unresectable Lung Cancer.

SYMPOSIUM 2A
LUNG CANCER

LUNG CANCER IN MALAYSIA: WHY ARE WE STILL MISSING THEM?

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Lung cancer is a leading cause of death in Malaysia and worldwide. The main cause is cigarette smoking. Late presentation is common. It is not unusual for patients to present with advanced disease (stages 3 and 4), poor performance status (WHO 3 and 4) and associated co-morbidities such as COPD and heart failure. Diagnostic investigations especially that which are invasive may be delayed, or worse, inappropriate. Patients may be too ill to receive curative or palliative treatment by then. Smoking take up rate is high and increasing amongst young Malaysians and this is a time bomb for our country.

Factors contributing to late presentation can be attributed to patients' and healthcare professionals' behaviour and our healthcare system. Reasons for late patient presentation in Malaysia need to be identified with measures to reduce the morbidity and mortality associated with lung cancer. We need to manage lung cancer in a concerted multi-disciplinary manner. The public needs to be aware of the danger signs and we need to impress on them the need to present early and for prevention with smoking cessation. Doctors should try to improve on lung cancer pick up rates and this involves everyone from primary care right up to tertiary centres. We must shed our own nihilistic views on lung cancer and other smoking-related lung diseases and try to speed up investigations and referrals other specialists in the multidisplinary team such as cardiothoracic surgeons and oncologists. Long delays in investigations and treatment allow the disease to progress and the performance status to deteriorate and the patient may succumb to their disease before definitive treatment can be given. Interested parties including non-governmental organizations should work closely with health authorities. Public health measures to curb smoking must be a priority for the government, as this will reduce the overall disease burden.

KEYWORDS
Lung cancer, late presentation, Malaysia.

SYMPOSIUM 2B
OPTIMIZING TREATMENT FOR CHILDHOOD ASTHMA

ALLERGY TESTING; IS IT NECESSARY AND ALLERGEN AVOIDANCE, IS IT EFFECTIVE?

John O Warner
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Sensitisation to common environmental allergens very commonly coexists with asthma, however, at the most 50% of asthma may be attributable to allergy. There is a strong association between either raised total IgE or specific IgE antibodies or positive skin prick tests and asthma. Up to 85% of children with asthma have allergies as compared with only 25 to 30% of the whole population.

The one consistent factor that predicts ongoing disease in infant wheezers is the presence of allergy. Indeed the best predictors of continuation of the disease into adulthood are an early age of onset and sensitisation to an aeroallergen in environments with significant allergen exposure, as well as reduced lung function and increased bronchial hyperresonsiveness in early life.

Exposure to allergens is a risk factor for the development of allergic sensitisation and further exposure in sensitised individuals is a risk factor for exacerbations of asthma particularly if combined with virus infection. Increasing degrees of allergy as represented either by total IgE levels or skin prick test weal sizes correlates with asthma severity.

Thus allergy testing either by the use of properly standardised skin prick testing or the measurement of specific IgE antibodies, will aid diagnosis and will be a strong prognostic indicator of disease persistence and severity. In infant wheezers, it is probably the single most important test to facilitate therapeutic decisions. However, the key issue is whether diagnosing a specific individual allergy will aid recommendations on allergen avoidance. In order to make an accurate specific allergy diagnosis it is important to be aware of the positive and negative predictive values of each test. As a general rule with some degree of variation, provided the skin prick test allergens are properly standardised, a weal diameter of greater than or equal to histamine control indicates a 95% probability that the allergen is relevant to the disease.

Two Cochrane based systematic reviews of house dustmite avoidance measures for the management of asthma has concluded that there is not enough evidence to show that current chemical and physical methods aimed at reducing exposure to house mite allergens are effective in reducing the severity of asthma. However, heterogeneity of outcomes suggests that physical methods may be effective. While many have criticised the meta-analysis, the most recent very large published trials have tended to confirm the Cochrane review. Nevertheless, all guidelines suggest that employment of physical methods such as bed barrier systems can be of value. However, there is no evidence base from which to recommend any other form of allergen avoidance though it is advised that cat and dog allergic asthmatics should remove pets from their homes.

The only other situation in which specific allergy diagnosis is critical is if allergen immunotherapy is to be considered. Several Cochrane reviews have shown that using house mite, cat, dog, grass or tree pollen immunotherapy does produce significant benefits for allergic asthmatics. However, most guidelines do not recommend its use for asthma.

In conclusion, allergy is clearly a very important component of asthma and its presence predicts persistent and more severe disease. However, at present allergen avoidance strategies leave a great deal to be desired and more work is required to optimise this form of intervention.

SYMPOSIUM 2B

OPTIMIZING TREATMENT FOR CHILDHOOD ASTHMA

CHILDHOOD ASTHMA – WHICH CLINICAL OUTCOME MEASURES TO AIM FOR?

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Outcome measures are used to monitor the course of an illness usually as part of a management plan and also to monitor the effects of interventions in clinical trials. Asthma symptoms, various forms of pulmonary function testing and measurement of cellular mediators of inflammation have been used to measure outcome in childhood asthma but they each have limitations both in terms of reliability and feasibility especially in young children.

Asthma symptoms in the form of symptom scores, nocturnal awakenings, rescue beta2-agonist use, asthma diaries, symptom free days are amongst the outcome measures based on report. Unfortunately, in many cases, this is based on caregiver impressions that tend to underestimate the child's symptoms. There are currently specific qualities of life questionnaires based on the child's responses which have been useful.

Pulmonary function testing is not generally feasible in very young children. In older children who are able to perform these tests there has been some debate over the most appropriate test to reflect severity.

Inflammatory marker analysis has been investigated in measuring outcome and includes eosinophilic cationic protein in blood and urine, induced sputum and exhaled nitric oxide amongst others. These have been used in trials and may not be as useful in daily management of childhood asthma.

The choice of the right outcome measure depends on what question needs to be answered, the age of the child and the availability of resources.

SYMPOSIUM 2B

OPTIMIZING TREATMENT FOR CHILDHOOD ASTHMA

THE EFFECTS OF TREATMENT ON INFLAMMATION MARKERS AND THEIR CLINICAL RELEVANCE

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Asthma is a chronic disorder of conducting airways associated with both inflammation and structural changes in the airway wall. All asthma guidelines emphasize the importance of treating the underlying inflammation as well as just relieving the symptoms of asthma. There is a need to identify markers of airway inflammation that might be used to optimise therapy.

It is clear that the presence of eosinophils in bronchial biopsy and bronchoalveolar lavage is associated with asthma and indeed even predicts the persistence of the problem in infant wheezers. To what extent non-invasive markers such as those associated with eosinophil activation (serum eosinophil cationic protein or urinary eosinophil protein X) can replace invasive bronchoscopy remains in doubt. ECP requires meticulous handling of the blood sample after it has been collected and there are inadequate studies of the value of urinary EPX. There is evidence that raised levels of eosinophil activation proteins are associated with the activity of asthma and with increased bronchial hyperresponsiveness. However, the correlation coefficients are not particularly high. Similarly induced sputum eosinophils and eosinophil activation proteins have some value in aiding diagnosis but little in guiding therapy.

Some patients can be highly symptomatic without any evidence of eosinophilic inflammation and conversely asymptomatic patients can sometimes have evidence of significant inflammation. The key issue for the latter is whether this will predict eventual exacerbation or ongoing disease. If this were to be the case then monitoring of the markers would have some value. Some studies would suggest that this is indeed the case while others are less clear.

Measurement of factors in exhaled breath have been more intensively investigated as surrogate markers of inflammation. Exhaled breath condensates can be collected to measure a variety of non volatile substances such as hydrogen peroxide, leukotrienes, nitrate, nitrite and indeed just pH. Unfortunately standardisation of the techniques is not fully established and as yet data are lacking on correlates with other indices of inflammation. However, measurement of exhaled nitric oxide has been subject to full standardisation and extensive study. Nitric oxide is formed in the airways when L-arginine is oxidised to L-citrulline. This reaction is affected by nitric oxide synthases. There are three forms constitutive in the neuronal tissue and a separate one in endothelium. However, the third is most important and is the inducible form whose expression is increased in association with eosinophil inflammation. Nitric oxide causes smooth muscle relaxation, increases ciliary activity, inhibits viral replication on the one hand but also has an effect in promoting inflammation and oedema on the other. Levels can be measured using a single breath or multiple breath technique, the former being more reproducible. Studies in asthmatic children have shown that the measurement can facilitate more rational and efficient use of inhaled corticosteroids thus reducing the frequency of both under and over treatment. It may also be a predictor of relapse. Furthermore, it has been used to identify anti-inflammatory properties of other medications such as Montelukast which has a significant effect in reducing exhaled nitric oxide. Furthermore, it is now possible to use a portable meter to make regular measurements at home much in the same way as monitoring peak flow. This may well facilitate even more precise use of anti-inflammatory anti-asthma therapy.

However, remodelling of the airway wall is an additional fundamental component of asthma pathology and we will not be able to optimise therapy until markers of this process can be identified.

COMBINED SYMPOSIUM 3
INTERSTITIAL LUNG DISEASE

SPECTRUM OF INTERSTITIAL LUNG DISEASES: THE STORY SO FAR

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Diffuse interstitial lung disease (DILD) comprises over 200 diseases that involve the space between the epithelial and endothelial basement membranes with similar clinical, physiologic radiographic manifestations. Recent ATS/ERS Consensus Statement on idiopathic interstitial pneumonia (IIP) recommended separating DILD into four categories: *(1)* DILDs of known cause, *(2)* granulomatous DILDs, *(3)* rare DILDs with well-defined clinicopathologic features, and *(4)* the IIPs. The IIPs are prototype of DILD of unknown etiology first described by Hamman and Rich and has been called as idiopathic pulmonary fibrosis (IPF) in the USA and cryptogenic fibrosing alveolitis in UK. Later, pathologists have noticed that some patients had different pathologic features in the surgical lung biopsy specimens, which had been previously diagnosed as IPF. And subsequent studies revealed that there were also clinical differences especially in the response to therapy and prognosis among the different pathologic patterns, which resulted in confusions in terminology and the classification. The ATS/ERS Consensus Statement finally proposed to classify IIP into seven clinical-radiologic and pathologic entities: IPF, nonspecific interstitial pneumonia (NSIP), cryptogenic organizing pneumonia (COP), acute interstitial pneumonia (AIP), respiratory bronchiololitis-associated interstitial lung disease (RB-ILD), desquamative interstitial pneumonia (DIP), and lymphoid interstitial pneumonia (LIP). The pathologic, clinical and radiologic features of each entity will be presented. It is important to emphasize that the final diagnosis is not just a pathologic one but should be rendered only after the pulmonologist, radiologist, and pathologist have reviewed all of the clinical, radiological, and pathological data obtained from the patient.

COMBINED SYMPOSIUM 3
INTERSTITIAL LUNG DISEASE

TREATMENT OF IDIOPATHIC PULMONARY FIBROSIS

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IPF is a relentlessly progressive disease with a median survival of 2 – 4 years after the diagnosis and corticosteroids alone or with immunosuppressive agents have been widely used on the basis of an inflammatory alveolitis theory. Although the evaluation of the previous literature on treatment of IPF is difficult due to the differences in diagnostic criteria, trial design, and treatment protocols, only about 10% of patients showed significant physiological benefit with this approach along with significant side effects. With the advent of ATS/ERS Consensus Classification on idiopathic interstitial pneumonia (IIP), we can define IPF more accurately and Interferon-γ trial showed that a large scale multi-center randomized controlled trial (RCT) is possible in IPF. Furthermore, by the evolution of new theory of pathogenesis of IPF focusing on epithelial injury and aberrant wound healing with sustained fibroproliferation, recent therapeutic approaches include antifibrogenic agents. The result of large scale RCTs on antifibrogenic agents such as Interferon-γ, pirfenidone, bosentan, and antioxidant N-acetylcysteine are available now, many other agents are on trial and some others are still at preliminary stages of laboratory and clinical evaluation. IFN γ-1b has shown evidence that it may prolong survival in patients who have IPF, particularly among those with more preserved lung function. N-acetylcysteine stabilized the decline in lung function as compared with control, although it did not prolong survival. At this symposium, we will discuss about the outcomes and limitations of these trials with future prospective.

PLENARY LECTURE 2

RESPIRATORY MEDICINE IN MALAYSIA: PAST, PRESENT AND FUTURE

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Respiratory medicine covers a wide variety of extremely common diseases, such as bronchial asthma, COPD, tuberculosis (TB), respiratory tract infections (including community acquired pneumonia and hospital-acquired pneumonia), lung cancer, sleep apnoea syndrome, interstitial lung disease, ARDS, pulmonary embolism, etc.

In Malaysia, the specialty of respiratory medicine has slowly evolved over the last few decades. It was only some 30 to 40 years ago that the few chest physicians in the country assisted by general physicians were mainly concerned with the care of patients with TB which was one of the leading causes of death in the country. With the decline of the TB problem, other respiratory diseases become more important. Respiratory care services have now expanded to also include care for patients with asthma, COPD, lung cancer, sleep apnoea syndrome, etc. From the handful of pioneer chest physicians in the country several decades ago, there are now more specialists in the field of respiratory medicine who are either working in public institutions or in private practice. However, the number of respiratory physicians is still far from adequate and a large proportion of patients with respiratory diseases are still being managed by general practitioners and general physicians.

Despite being responsible for a high percentage of general practice consultations, emergency department attendances and hospital admissions, and gaining greater importance as a cause of morbidity, there is a relative lack of national prioritisation of care of patients with respiratory diseases compared to other diseases.

With further progress and development in the country, the provision and access to respiratory care services, in both the public and private sectors, should improve. Raising the standards and improving the quality of care for respiratory diseases should also be the agenda of all parties concerned. Apart from training in overseas centres, opportunities for respiratory medicine training in the country are improving with the increasing number of both respiratory medicine consultants and accredited training centres. Similar to other developing countries, research and publication output in respiratory medicine is still low in Malaysia but the situation is slowly improving.

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COMBINED SYMPOSIUM 4

THE NEXT INFLUENZA PANDEMIC

AVIAN INFLUENZA (H5N1): EPIDEMIOLOGY, CLINICAL SPECTRUM, AND TREATMENT

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Recent development of highly pathogenic H5N1 avian influenza in Asia, the Middle East, and Europe has made the threat of the next influenza pandemic more imminent. The outbreaks are historically unprecedented in their scale, geographical spread and economic consequences for the agricultural sector of the countries affected. By May 2006, over 200 human cases of H5N1 have been reported in Vietnam, Thailand, Cambodia, China, Indonesia, Azerbaijan, Egypt, Iraq, Turkey, and Djibouti with a fatality rate well above 50%. This is considerably higher than the 1997 outbreak in HK where there were 18 human cases with a death toll of 6.[1]

The reported symptoms of avian influenza in humans have ranged from typical flu-like illness (e.g., fever, cough, sore throat, and myalgia) to pneumonia, diarrhoea, ARDS and multi-organ dysfunction syndrome (MODS). Fever, cough, and dyspnoea are the major symptoms on presentation whereas gastrointestinal symptoms such as diarrhoea, vomiting, and abdominal pain are frequent. Some human cases may have atypical presentation without respiratory symptoms initially but progress rapidly to encephalitis, MODS, and death.[2-6] Common laboratory features of human H5N1 infection include lymphopenia, elevated liver transaminases, and thrombocytopenia. A low absolute lymphocyte on admission is associated with more severe disease and death.[5] A recent review has shown that about 63% of patients with H5N1 infection require advanced life support. Of these, 68% develop MODS,

54% develop ARDS, and 90% die. Disease progression is rapid, with a median time from presentation to hospital to requirement for advanced organ support of 2 days.[7] The efficiency for human-to-human transmission is low at present, but the continuing presence of infection in poultry may create opportunities for the emergence of a new influenza virus strain with the capacity to spread easily among humans.

Influenza A (H5N1) viruses identified in human patients in Vietnam and Thailand in 2004 and 2005 are resistant to amantadine and rimantadine whereas resistant mutants are much less commonly isolated in Indonesia and China.[6,8] The H5N1 antigenic variant VN1203/04 was more pathogenic in mice than was A/HK/156/97. The neuraminidase inhibitors are the most effective antiviral agents. Oseltamivir prophylaxis is efficacious against lethal challenge with VN1203/04 virus in mice but the strain isolated in 2004 requires higher oseltamivir doses and longer administration (8 days) to induce similar antiviral effects and survival rates compared to 1997.[9] It has been estimated that antiviral stockpiles that cover 20 – 25% of the population would be sufficient to treat most of the clinical cases and could lead to 50% to 77% reduction in hospitalizations.[10] Inhaled zanamivir has not been studied in human H5N1 cases but it may have a role for post-exposure prophylaxis and as a back-up agent in case there is increase in viral resistance to Oseltamivir. A pandemic vaccine will not be available until 3 – 4 months after the outbreak.

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COMBINED SYMPOSIUM 4

THE NEXT INFLUENZA PANDEMIC

THE NEXT PANDEMIC FLU: ARE WE PREPARED?

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The outbreak of highly pathogenic Avian Influenza (HPAI; H5N1) among poultry occurred in the region in December 2003; less than six months after the World Health Organisation declared in July 2003 that the last chain of transmission of severe acute respiratory syndrome (SARS) had been interrupted and the global outbreak was contained. Since then, the world has moved closer to a pandemic influenza. The virus has expanded its geographical range to include new countries thus increasing the population at risk. Human cases are continuing to occur in sporadic distribution. All prerequisites for a start of a pandemic have been met except the establishment of an efficient human-to-human transmission. Each new human infection gives the virus an opportunity to evolve towards a fully transmissible pandemic strain. The SARS events revealed how much the effect of a highly mobile and closely interconnected world to an infectious disease.

Since our experience with the cholera outbreak in 1996, HFMD outbreak in 1997 and Nipah outbreak in 1999, we have put in place our capability and capacity to be better prepared to meet the challenges of infectious disease threat. As a consequence, we were better prepared during the SARS outbreak and the recent episode of HPAI outbreak in Kelantan in 2004. Based on these experiences and the future threat of pandemic influenza, National Influenza Pandemic Preparedness Plan (NIPPP) is drafted. This document provides a policy and strategic framework for a multi-sectoral response and contains specific advice and actions to be undertaken by the Ministry of Health at the different levels i.e. public health, medical, risk communication as well as laboratory; other governmental departments and agencies and non governmental organizations to ensure that resources are mobilised and used most efficiently before, during and after an influenza pandemic episode. Meanwhile Ministry of Health continues to strengthen the capacities and capabilities in handling the future pandemic influenza; including informing the public, stockpiling of antiviral and personnel protective equipment (PPEs) as well as upgrading the hospitals and laboratories. There is no specific indicator to determine whether we are prepared for the next pandemic influenza.