PHILIPPINE JOURNAL OF CHEST DISEASES

Volume 18 Number 1
January-March 2017

IN THIS ISSUE:

"PEPTALKS: Pursuing Excellence in Pulmonology—Trends, Advances and Latest Knowledge in Sleep"

36th Annual Chest Convention &
4th ASEAN Sleep Congress
March 07-10, 2017 • Manila, Philippines

Scientific Program • Faculty Abstracts • Posters and Researches

AN OFFICIAL PUBLICATION OF PHILIPPINE COLLEGE OF CHEST PHYSICIANS

PHILIPPINE JOURNAL OF CHEST DISEASES
AN OFFICIAL PUBLICATION OF THE PHILIPPINE COLLEGE OF CHEST PHYSICIANS

Address all communication and manuscripts for publication to the following: The Editor, Philippine Journal of Chest Diseases, 84-A Malakas St., Pinyahan, Quezon City. Email: secretariat@philchest.org. Phone: (+632) 924 9204.

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INSTRUCTIONS TO AUTHORS

The Philippine Journal of Chest Diseases publishes scientific papers in the field of pulmonary medicine. These papers may be in the form of collective and current reviews (state of the art, meta-analyses), original investigations, case reports, editorials or letters to the editor. All manuscripts must be submitted electronically to secretariat@philchest.org. Manuscripts should be single spaced and left-justified, including references. Use 10-point type, approximately 1-inch margins, and format for 8 ½ x 11 paper. The editorial staff requires files that can be opened and manipulated in Word 2004-2009, PowerPoint or Excel.

Accepted manuscripts become the property of the Philippine College of Chest Physicians and are published with the understanding that they are not for publication elsewhere without approval. These manuscripts are subject to editorial modification.

Generally, write using the first person, active voice; for example, "We analyzed data," not "Data were analyzed." The Abstract and acknowledgments or disclaimers are the exceptions to this guideline, and should be written in the third person, active voice; "The authors analyzed," "The authors wish to thank."

Supply a title page as the first page of the manuscript with the following information:

1. The manuscript's full title which should provide sufficient information regarding the contents of the manuscript.
2. All authors should provide their complete names, professional titles, and institutional affiliations. Include an author byline that lists all authors' full names and academic degrees above a Masters; for example, "Juana Cruz, MD, PhD, and Juan Ramos, MD". Also include sentence-style bios for each author than list position(s) or title(s) and institutional affiliation(s); for example, "Dr. Cruz is assistant professor, Section of Pulmonary Medicine, Department of Internal Medicine, State University College of Medicine".
3. Contact information (address and email address, plus telephone and/or fax) for the corresponding author.
4. Disclosure of funding received for this work from any organization or company.
5. State if the paper has been presented in any convention and whether any awards have been conferred on the paper.

Abstract. The abstract should not be longer than 250 words. It should contain a summary of what was done in the study, including objectives, study design, important results and conclusions. Only findings restricted to the study should be mentioned in the abstract. For research reports only, abstracts must be in the structured form of four paragraphs, with headings Purpose, Methods, Results, and Conclusions; and must include the year of the study. The authors should also provide three key words under which the article can be indexed.

Headings

For all manuscripts. Use main headings and short subheadings as needed. Do not create a heading at the very top of the manuscript (e.g., "Introduction"), since layout constraints make such headings unworkable. Text should be set in Times New Roman font, 10 point in size, and single-spaced. The main heading of the online-only text should be in 12 point and boldface; subheadings should be in 10-point and boldface. If subheadings are used, two or more such headings must be used, as in outline style.

For research reports. Structure the body of the manuscript using the headings Introduction, Methods, Results, and Conclusions. At least a full paragraph of text must precede the Introduction heading, for layout reasons.

For articles. Create headings that are substantive and interesting and that will give readers a sense of the article's organization. Make headings as short as is feasible. At least a full paragraph of text must precede the initial heading, for layout reasons.

Text. Formal scientific or technical style shall be followed in writing the manuscripts. All abbreviations should be spelled out when used for the first time. For standard terminology, such as chronic obstructive pulmonary disease

(COPD) or forced vital capacity (FVC), only standard abbreviations should be used. Information or data that is best described in tables should be presented as such. Tables which duplicate information provided in the text shall be removed. Generic names of drugs shall be used except in instances where trade names are vital, such as in clinical trials.

Tables and Figures. Only tables cited in the text should be included. All tables should be called out in the text and shall be numbered in ascending order depending on the sequence they were referred to in the text. A different order for tables and figures is to be used. Symbols are * † ‡ § ¶.

A single table or figure with the appropriate labels should be printed on a single page. The text and data in online tables should be Arial font, 10 point in size, and single-spaced. The table title should be set in Arial font 12 point, and bold. Headings within tables should be set in 10 point bold.

Explanatory notes or legends should be written at bottom of the table or figure. Table titles should make the table sufficiently understandable independent of the manuscript. Typically, include type of data, number and type of respondents, place of study, year of study. Titles should be placed directly above the table, not in a data cell. Columns should be clearly labeled, including unit of measure.

Footnotes: If information is needed to make the table understandable that won't easily fit into the table title or data cells, create one or more footnotes. Table footnotes should be set in 8 point and single-spaced. Place footnotes at the bottom of the table, not in a data cell. All abbreviations should also be explained.

Figures. Only figures (or pictures) cited in the text should be included. All figures should be called out in the text and shall be numbered in ascending order depending on the sequence they were referred to in the text. A different order for tables and figures is to be used.

Figures are acceptable as Excel, PowerPoint or Word 2004-2009 files. All files supplied must be "live" figures that can be opened and formatted. PDFs and JPGs are not accepted. Figures should be two-dimensional; black-and-white or grayscale; and without gridlines or background shading. X and Y axes, if present, must be labeled.

Figure legends should make the figure sufficiently understandable independent of the manuscript. Legends should be placed on the last page in the manuscript. All figures should be separated from the text file, yet bundled into a common file, if possible, with individual figures separated by page breaks.

The editorial staff reserves the right to determine whether the graphical instruments are appropriate for the information being imparted and modify or request modification/s for inappropriate illustrations. The editorial staff reserves the right to generate illustrations compatible with the professional standards of the journal.

References. Authors are responsible for the accuracy and completeness of their references and for correct text citations. All references should be identified at the appropriate parts of the text using Arabic numerals enclosed in parentheses. All references should then be typed double-spaced at the end of the manuscript and numbered according to the order they were cited in the text. Journal references should include the names of all the authors and inclusive page numbers. Abbreviations of names of journals should conform to those used in the Index Medicus.

For world wide web citations, follow the following format: <author's name> <title of document> <<URL>> <date of document> (accessed <date accessed>). You may break URLS across lines, but if possible, arrange for breaks to occur only at punctuation separators (but not on hyphens, and don't ever add hyphens).

Samples of the style to be followed in the listing references are enumerated below:

JOURNAL ARTICLE: Tanchuco JQ, Young J. Normal standards for spirometric tests in Filipino children. Chest Dis J 1989. 16:93-100.

BOOK: Kelley MA, Fishman AP. Exercise Testing. In: Pulmonary Diseases. 2 edition. Fishman AP, (ed.). McGraw-Hill Book Co.; 1989. pp.2525-2532.

WORLD WIDE WEB: Horton M, Adams R. Standard for interchange of USENET messages Request for comment s 1036, Network Working Group. <ftp://ftp.demon.co.uk/pub/doc/rfc/rfc1036.txt> Dec.1987 (Accessed 19 June 1995)

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TIME		Day 0 (March 7, 2017 -Tuesday)			Day 1 (March 8, 2017 - Wednesday)		
07:00		Post-Graduate Course 1 PSG Interpretation and Multidisciplinary Management of Sleep Apnea (Summit Hall C)	Post-Graduate Course 2 - P.E.T. Scan (Pursuing Excellence in Thoracic Scan: CT/MRI/PET Imaging for Chest Physicians) (Summit Hall D)		Sunrise Symposium 1 QUIZ CONTEST (Banquet Hall 2 & 3)		
08:15							
08:30					PLENARY SESSION 1 The New TB National Strategic Plan 2017-2022 Dr. Anna Marie Celina Garfin (Reception Hall)		
09:00							
09:15					PLENARY SESSION 2 Sleep Medicine: Promise and Directions Dr. Christian Guilleminault (Reception Hall)		
10:00					OPENING OF EXHIBITS		
10:30				Orientation of New Members (Summit Hall E/F)	PLENARY SESSION 3 Lung CA: Personalized Medicine: Options in Cancer Therapy Dr. Chong Kin Liam (Reception Hall)		CS1 10:20 am–11:30 am Level up: Interactive Sleep Cases (Meeting Room 4)
11:15							
11:30					PLENARY SESSION 4 Non-TB Mycobacterium (NTM) in Non-Cystic Fibrosis (Non-CF) Bronchiectasis: Diagnosis & Management Dr. Eva Polverino (Reception Hall)		CS2 11:30am - 12:00nn Consolidating ASEAN Sleep Medicine (Concurrent Discussions) (MR 4, 7 & 8)
12:00nn							
	REGISTRATION	LS PHILIPS RESPIRONICS (Summit Hall C)	LS OEP (Summit Hall D)	Research Oral Presentation (Summit Hall E/F)	LS 1 ASTRAZENECA (Meeting Room 1)	LS 2 SANDOZ (Summit Hall C/D)	LS 3 GSK (Summit Hall E/F)
01:30		Post-Graduate Course 1 PSG (Summit Hall C)	Post-Graduate Course 2 P. E. T. (Summit Hall D)		Visit the EXHIBITS		
02:00					PLENARY SESSION 5 The Pulmonary Physical Exams… Dying or Adopting? Dr. Errol Ommar Ozdalga (Meeting Room 1)		CS3 1:20 pm-2:30pm Sleep in the ICU (MR 4)
02:30							
02:45							VISIT THE EXHIBITS 2:30 pm-2:50 pm
03.:00					Visit the EXHIBITS		
04:00					CS4 Asthma in Digital Age (Meeting Room 1)	CS5 New TB Dx Tools for Improved Case Findings (Summit Hall C/D)	CS6 Beyond COPD: The Unmet Needs of the Elderly (Summit Hall E/F)
04:30		OPENING CEREMONIES INDUCTION OF NEW MEMBERS DR. DINA V. DIAZ Honor Lecture (Meeting Room 1)					CS7 2:50 pm – 4:00 pm Sleep & the Specialist I (Meeting Room 4)
05:00							CS8 4:00 pm – 5:10 pm Generation Gap: Age Related Sleep Disorders (Meeting Room 4)
					PLENARY SESSION 6 Removing Simple Barriers to Asthma Control Dr. Matthew Peters (Meeting Room 1)		
07:00		PRESIDENTS HONOR BANQUET (Summit Hall D)			FELLOWSHIP NIGHT (Reception Hall)		

TIME	Day 2 (March 9, 2017 - Thursday)			Day 3 (March 10, 2017 -Friday)		
07:00 08:15	Sunrise Symposium 2 INTER-HOSPITAL DEBATE (In cooperation with TOHAP) (Banquet Hall 2 & 3)		CS9 7:50 am-9:00 am Sleep Disordered Breathing Solutions (Meeting Room 4)	Sunrise Symposium 3 MEDICAL ETHICS Pulmonology & Social Media 07:30am – 08:30am (Reception Hall)		
08:30 09:00	PLENARY SESSION 7 The New Staging in Lung CA Dr. Saeed Mirsadraee (Reception Hall)					
09:15	PLENARY SESSION 8 Sleep Forensics Dr. Michel A. Cramer Bornemann (Reception Hall)			PLENARY SESSION 13 Issue in the Management of IPF Dr. Philip Eng (Reception Hall)		
10:00	Visit the EXHIBITS			Visit the EXHIBITS		
10:30 11:15	PLENARY SESSION 9 The Call to Personal Leadership Mr. Francis J. Kong (Reception Hall)		CS10 10:20 am-11:30am Sleep and the Specialist II (Meeting Room 4)	PLENARY SESSION 14 State of the Art: COPD Exacerbations Dr. Jadwiga Anna "Wisia" Wedzicha (Reception Hall)		
	PLENARY SESSION 10 High Flow Nasal Oxygen (HFNO) & Non-Invasive Ventilation (NIV) In Respiratory Failure Dr. Mark Elliott MA MD FERS (Reception Hall)			PLENARY SESSION 15 FERMIN MANALO LECTURE Sunrise, Sunset: Starting vs Retiring Pulmonologist Dr. Parkash T. Mansukani & Dr. Radha Marie M. Sillano (Reception Hall)		
11:30 12:00nn			CS11 11:30 am-12:00nn OSA Matters for Asians (Concurrent Discussions) (MR 4, 6, 7 & 8)			
	LS 4 NOVARTIS (Reception Hall)	LS 5 BOEHRINGER INGELHEIM (Summit Hall C/D)	LS 6 PFIZER (Summit Hall E/F)	LS 7 PCCP & PSSM (Reception Hall)	LS 8 UAP (Summit Hall C/D)	LS 9 CORBRIDGE (Summit Hall E/F)
01:30	Visit the EXHIBITS			PCCP BUSINESS MEETING 02:00PM (Reception Hall)		
02:00 02:30	PLENARY SESSION 11 COPD: The Role of Physicial Activity Prof. Klaus F. Rabe, MD, PhD (Reception Hall)		CS12 1:20 pm-2:20 pm Sleep in the Workplace (Meeting Room 4)			
02:45			VISIT THE EXHIBITS 2:30 pm-2:50 pm			
03.:00	Visit the EXHIBITS					
04:00	CS13 GOLD 2017 (Reception Hall)	CS14 Interactive Discussion on Pleural Effusions (Summit Hall C/D)	CS15 Clinical Year Review in Critical Care (Summit Hall E/F)			
04:30			CS16 2:50 pm – 4:00 pm Insomnia from the Bedroom to the Clinic (Meeting Room 4)			
05:00			CS17 4:00 pm – 5:10 pm Bedroom Bumps & Grind (Meeting Room 4)			
	PLENARY SESSION 12 HAP &VAP: IDSA and PCCP perspective Dr. Isauro Q. Guiang Jr., Dr. Mario Panaligan Dr. Rodolfo S. Pagcatipunan Jr. (Reception Hall)			CLOSING CEREMONIES FAREWELL DINNER INDUCTION OF NEW OFFICERS (Summit Hall D)		
07:00	TRAINING INSTITUTION'S REUNION		PSSM Business Meeting (5-7pm) (Meeting Room 8)			

The 36th Annual Chest Convention & 4th ASEAN Sleep Congress

March 07-10, 2017 Philippine International Convention Center

SCIENTIFIC PROGRAM

Day 0 - TUESDAY, 7TH MARCH – PRE CONVENTION

ASC POST GRADUATE COURSE 1:

"PSG Interpretation and Multidisciplinary Management of Sleep Apnea"

March 7, 2017 (Tuesday) • 08:00am - 04:00pm

Summit Hall C, 4th/F PICC, CCP Complex Pasay City

The 4th ASEAN Sleep Congress Post-Graduate Course will be a whole day comprehensive program targeting doctors, polysomnographers, respiratory technicians, nurses and other allied healthcare providers. Its aims are to 1) reinforce knowledge in staging and scoring pediatric and adult polysomnograms, 2) boost the skills in performing positive airway titration studies, 3) provide basic competency in interpreting a sleep study result and compliance data, 4) provide exposure on the available positive airway pressure devices, different types of masks and how to maximize the user's comfort, 5) expand the understanding on surgical management of obstructive sleep apnea and use of oral appliances and 6) gain familiarity with the use of a portable monitoring device

MORNING SESSION

TIME	ACTIVITY	FACULTY
07:30 - 08:00 am	Registration	
08:00 - 08:05 am	Welcome Remarks	Virginia S. de Los Reyes, MD, FPCCP, FPSSM
08:05 - 08:15 am	Overview of Post-graduate Course	Rodolfo V. Dizon, Jr., MD, FPCCP, FPSSM
08:15 - 09:00 am	Adult Sleep Staging	Mr. Glenn S. A. Roldan, RPSGT, RST, CSE
09:00 - 09:45 am	Pediatric Staging and Scoring Challenges - How is it different from the adult?	Jonalyn Chris A. Ang, MD, FPSSM
09:45 -10:15 am	Visit the booths/Coffee break	
10:15 -11:00 am	Adult Scoring	Tripat Deep Singh, MD, RPSGT
11:00 - 11:45 am	Interpretation of a Sleep Study Result	Emelie Bautista-Ojascastro, MD, FPCCP, FPSSM

AFTERNOON SESSION (30 Minute Stations) - to start at 1:00pm to 4:00pm

TOPIC	FACILITATORS	
	GROUP 1	GROUP 2
Types of PAP devices (CPAP/APAP/BPAP/ASV)	Aileen Guzman-Banzon, MD, FPCCP, FPSSM Mr. Jonathan J. Rivera, RPSGT	Teresita Celestina Fuentes, MD, FPCCP, FPSSM Mr. Glenn Roldan, RPSGT
Proper Mask Fitting & Ensuring Comfort while PAP (Pap nap/ramp/management of nasal congestion)	Mary Warren E. Ilaga, MD, FPSSM Ms. Charmain Beatrice Atos, RPSGT	Abigail Zaraspe, MD, FPCCP, FPSSM
Interpreting Compliance Data	Alexander Abe, MD, FPSSM	Cristito B. Alea, MD, FPSSM
Upper airway evaluation for CPAP failures (Surgical management)	Romulus Instrella, MD, FPSSM Colina Colina, MD	Keith Romeo Aguilera, MD, FPSSM Beverly Carbonell, MD
Oral Appliances	Jimmy V. Chang, MD, FPSSM Emma Natividad, MD	Maria Patricia T. Puno, MD, FPSSM Pamela Mendoza, DMD
Portable monitoring	Tripat Deep Singh, MD	Duane L. Salud, MD, FPSSM Mr. Khem Ballaho, RPSGT

PCCP POST GRADUATE COURSE 2:

P.E.T. Scan (Pursuing Excellence in Thoracic Scan: CT/MRI/PET Imaging for Chest Physicians)

March 7, 2017 (Tuesday) • 08:00am - 03:00pm

Summit Hall D, 4th/F PICC, CCP Complex Pasay City

PG Course Director: Roland M. Panaligan, MD, FPCCP

PG Course Member/s: Patrick Gerard L. Moral, MD, FPCCP
Ma. Janeth T. Samson, MD, FPCCP
Geraldine D.C. Garcia, MD, FPCCP
Julie Christie G. Visperas, MD, FPCCP
Ma. Ronila A. Santos, MD, FPCCP
Jude P. Guiang, MD, FPCCP
Irene Salve D. Joson-Vergara, MD, FPCCP
Earl Louis A. Sempio, MD, FPCCP
Aileen F. Zagala, MD

Objectives of the course:

1. To provide a comprehensive and structured learning opportunity regarding thoracic imaging as applicable to chest physicians.
2. To provide learning activities from lecturettes to small group clinical case discussions that will cover thoracic imaging anatomy, interpretation and clinical applications.

P.E.T. Scan (Pursuing Excellence in Thoracic Scan: CT/MRI/PET Imaging for Chest Physicians)

TIME	TOPIC/ACTIVITY
07:00am – 07:30	Registration Online Pre-Test
07:30 – 08:00	Welcome Address / Course Overview Roland M. Panaligan, MD, FPCCP Chair
08:00 – 08:30	CT Anatomy and Interpretation Roy P. Vizcarra, MD (Radiologist) (St. Luke's Medical Center, Philippines)
08:30 – 09:00	MRI Anatomy and Interpretation Dr. Saeed Mirsadraee (University of Edinburgh, Scotland, United Kingdom)
09:00 – 09:30	Hands-on/Small Group Discussion Facilitators
09:30 – 09:45	Working Break
09:45 – 10:15	Pulmonary Ultrasound (Ultrasound) Dr. Errol Ommar Ozdalga (Stanford University, United States)
10:15 - 10:45	Imaging of Lung Infection (CT/MRI) Roy P. Vizcarra, MD (Radiologist) (St. Luke's Medical Center, Philippines)
10:45 – 11:15	Hands-on/Small Group Discussion Facilitators
11:15 – 11:45	Imaging for Lung Cancer Screening Dr. Saeed Mirsadraee (United Kingdom)
11:45am – 12:15nn	Hands-on/ Small Group Discussion Facilitators
1:30pm – 2:00	PET Scan Basic Dr. Saeed Mirsadraee (University of Edinburgh, Scotland, United Kingdom)
2:00 – 2:30pm	Online Post-Test Closing

ORIENTATION OF NEW MEMBERS
Venue: Summit Hall E/F, 4th/F, PICC
Time: 10:30am-12:00nn

RESEARCH ORAL PRESENTATION
Venue: Summit Hall E/F, 4th/F, PICC
Time: 12:00nn – 03:00pm

LUNCHEON SYMPOSIA

Luncheon Symposium
Date: March 7, 2017 (Tuesday)
Venue: Summit Hall C, 4th Floor, Time: 12:00nn – 1:30pm
Title & Speaker: **"Principles of Positive Airway Pressure Titration for Sleep Related Breathing Disorders"** by Dr. Teofilo Lee-Chiong (USA)
*(Through a CME grant from **Philips Respironics**)*

Luncheon Symposium
Date: March 7, 2017 (Tuesday)
Venue: Summit Hall D, 4th Floor, Time: 12:00nn – 1:30pm
Title & Speaker: **"New perspectives for mucoactive drugs in COPD treatment: The RESTORE Study"** by Prof. Roberto W. Dal Negro (Italy)
*(Through a CME grant from **OEP Philippines Inc.**)*

OPENING CEREMONIES
Induction of New Member
Honor Lecture: **DINA V. DIAZ, MD, FPCCP**
04:30pm at Meeting Room 1, 3rd/F PICC

PRESIDENT'S HONOR BANQUET
07:00pm at Summit Hall D, 4th/F, PICC

Day 1 - WEDNESDAY, 8TH MARCH – CONVENTION PROPER

SUNRISE SESSION 1: QUIZ CONTEST

07:00am – 08:30am at Banquet Hall 2 & 3,
2nd/F Delegation Building, PICC

7th PCCP Quiz Challenge: "#PulmoKNOWlogy2017"

Judges: Ma. Bella R. Siasoco, MD, FPCCP; Manuel Hector U. Silos, MD, FPCCP; Aven-Kerr S. Ubalde, MD, FPCCP
Quizmaster / Moderator: Mary Grace P. Quilloy-Arellano, MD, FPCCP; Gene Philip C. Louie Ambrocio, MD
Session Chair: Joanne Kathleen B. Ginete-Garcia, MD, FPCCP
Session Co-Chair: Coleen B. Gulay, MD

INSTITUTIONS	PULMONARY FELLOW
LCP	Eva Christine O. Navales, MD
PHC	John Ray T. Galamay, MD
VMMC	Abigail D. David, MD
SLMC	Raychelle Anne B. Yang-Nagaño, MD
USTH	Maria Cristina A. Maranion, MD
CGH	Archie E. Apostol, MD
MDH	Cristina D. Roldan, MD
MMC	Kenneth Jorge A. Lasafin, MD
TMC	Patricia Ann T. Estrella, MD
CHH	Kristoferson A. Catungal, MD
PSH	Marlo P. Bagano, MD
UPHDMC	Raissa Joyce Guarin, MD
UP-PGH	Jonray R. Magallanes, MD

PCCP PLENARY SESSION 1

TOPIC: The New TB National Strategic Plan 2017-2022
Anna Marie Celina Garfin, MD (Philippines)
Date / Time / Venue: March 8, 2017 (Wednesday), 08:30 – 09:15am, Reception Hall
Chairman: Jose Hesron D. Morfe, MD, FPCCP

Objectives:
1. understand and list the strategies, performance targets and key activities of the Philippine Strategic TB Elimination Plan Phase 1 (PhilSTEP 1)
2. apply strategies in eliminating TB in the country.

Sleep Medicine Session

ASC PLENARY SESSION 2

TOPIC: Sleep Medicine: Promise and Directions
Dr. Christian Guilleminault (USA)

Date / Time / Venue: March 8, 2017 (Wednesday), 09:15 -10:00am, Reception Hall
Chairman: Virginia S. de Los Reyes, MD, FPCCP, FPSSM

OPENING OF EXHIBITS
March 8, 2017 (Wednesday)
10:00 – 10:30am at 3rd/F Delegation Building

PCCP PLENARY SESSION 3

TOPIC: Lung CA: Personalized Medicine Options in Cancer Therapy
Professor Chong Kin Liam (Malaysia)
Date / Time / Venue: March 8, 2017 (Wednesday), 10:30-11:15am, Reception Hall
Chairman: Guia Elena Imelda R. Ladrera, MD, FPCCP

Objectives:
At the end of the session, the participant will
• Outline the approach to utilization of markers for targeted cell therapy, such as EGFR, ALK, and ROS-1 testing.
• List the available agents for targeted cell therapy-indications, potential benefits, common adverse reactions and in dealing with T790 mutations and /or resistance.
• Discuss the role of screening for PDL1 and immunotherapy in the treatment of lung cancer.

Sleep Medicine Session

ASC CONVENTION SYMPOSIUM 1

TOPIC: Level up: Interactive Sleep Cases
March 8, 2017 (Wednesday), 10:20 – 11:30am, Meeting Room 4, 2nd/F Delegation Building

Title & Speaker/s:
Must Know: Sleep Essentials Overcoming Insomia by Dr. Teofilo Lee-Chiong (USA)

Usual and Beyond: Classic Cases Narcolepsy vs Idiopathic hypersomnia by Dr. Tayard Desudchit (Thailand)

Master Specialist: Difficult Cases -- **Unusual Parasomnias**
Dr. Michel A. Cramer-Bornemann (USA)

Chairman: Patrick Gerard L. Moral, MD, FPCCP, FPSSM

PCCP PLENARY SESSION 4

TOPIC: Non-TB Mycobacterium (NTM) in Non-Cystic Fibrosis (Non-CF) Bronchiectasis: Diagnosis & Management by Eva Polverino, MD (Spain)

Date / Time / Venue: March 8, 2017 (Wednesday), 11:15am - 12:00nn, Reception Hall
Chairman: Rizal Alberto B. Nolido Jr., MD, FPCCP

Objectives:
At the end of the session, the participant will
- Apply the necessary clinical information
  i. to diagnose NTM non-CF bronchiectasis
  ii. to differentiate it from Tuberculosis
- Plan a management approach for the disease

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Sleep Medicine Session

ASC CONVENTION SYMPOSIUM 2

TOPIC: Consolidating ASEAN Sleep Medicine(Concurrent Discussions)
March 8, 2017 (Wednesday), 11:30am – 12:00nn
Meeting Room 4, 7 & 8, 2nd/F Delegation Building

Title & Speaker: ASEAN Sleep Legislation by Dr. Yap Yoke-Yeow (Malaysia) *(Meeting Room 4)*
Chairman: Ma. Encarnita Blanco-Limpin, MD, FPCCP, FPSSM

Title & Speaker: Areas for research collaboration in ASEAN sleep by Dr. Yun-Kwok Wing (Hong Kong) *(Meeting Room 7)*
Chairman: Aileen Guzman-Banzon, MD, FPCCP, FPSSM

Title & Speaker: Truly Asian ideas on Sleep: Sudden Death in Sleep among Asians by Dr. Felicidad Soto (Philippines) *(Meeting Room 8)*
Chairman: Mary Warren E. Ilaga, MD, FPSSM

LUNCHEON SYMPOSIA

Luncheon Symposium 1

Date: March 8, 2017 (Wednesday)
Venue: Meeting Room 1, Time: 12:00nn – 1:30pm
Title & Speaker: **"Revisiting the Role of Device and its Impact in Asthma Outcomes"** by Prof. Matthew Peters, MD (Australia)
*(Through a CME grant from **AstraZeneca Philippines**)*

Luncheon Symposium 2

Date: March 8, 2017 (Wednesday)
Venue: Summit Hall C/D, 4th Floor, Time: 12:00nn – 1:30pm
Title & Speaker: **"Optimizing Control of Uncontrolled Chronic Airway Obstruction"** by Daniel T. Tan, MD, FPCCP (Philippines)
*(Through a CME grant from **Sandoz Philippines Corporation**)*

Luncheon Symposium 3

Date: March 8, 2017 (Wednesday)
Venue: Summit Hall E/F, 4th Floor, Time: 12:00nn – 1:30pm
Title & Speaker: **"Shifting the Paradigm in Asthma & COPD: The Impact of 24 hour efficacy and Clinically Important Deteriorations"** by Celeste Mae L. Campomanes, MD, FPCCP (Philippines)
*(Through a CME grant from **GlaxoSmithKline**)*

Visit the EXHIBITS
(01:30 – 2:00pm) at 3rd/F Delegation Building

PCCP PLENARY SESSION 5

TOPIC: The Pulmonary Physical Exams…Dying or Adopting? By Errol Ommar Ozdalga, MD (USA)
Date / Time / Venue: March 8, 2017 (Tues), 02:00 – 02:45pm; Meeting Room 1, 3rd Floor Summit Hall C/D, 4th Floor – *live feed venue*
Chairman: Abundio A. Balgos, MD, FPCCP

Objectives:
At the end of the session the participant will:
- Review the importance of history and PE in medical diagnosis
- Appraise the clinical usefulness of the stethoscope
- List the additional information provided with the use of ultrasound

Sleep Medicine Session

ASC CONVENTION SYMPOSIUM 3

TOPIC: Sleep in ICU
March 8, 2017 (Wednesday), 01:20 – 02:30pm; Meeting Room 4, 2nd/Floor Delegation Building

Title & Speaker/s:
- **Sleep in ICU** by Dr. Tripat Deep Singh (Singapore)
- **OSA and the Cardiovascular patient** by Dr. Albert L. Rafanan (Philippines)
- **NIV in the Critically ill sleep patient (Science of Non-invasive ventilation)** by Dr. Teofilo Lee-Chiong (USA)

Chairman: Dr. Ye Tun (Myanmar)

Visit the EXHIBITS
(02:45 – 03:00pm) at 3rd/F Delegation Building

PCCP CONVENTION SYMPOSIUM 4

TOPIC: Asthma in Digital Age
March 8, 2017 (Wednesday), 03:00 – 04:30pm
Meeting Room 1, 3rd/Floor Delegation Building

Title & Speaker: Digital Challenges and Opportunities for Asthma Management by Errol Ommar Ozdalga, MD (USA)

Title & Speaker: The Digital Evolution and the Future of Mobile Apps in Asthma Management by Chris Chen, MD

Objectives:
At the end of the session the participant will
- Discuss and describe the impact of developments in the use of the internet in general and social media in particular on the management of asthma in the light of GINA
- Speculate on the digital technological future for asthma
- Review significant digital technological developments vis-à-vis asthma diagnosis and management including: 1) the evolution of mobile apps for asthma; and 2) Electronic asthma action plan tools

Chairman: Aileen David-Wang, MD, FPCCP
Moderator: Joven Roque V. Gonong, MD, FPCCP

PCCP CONVENTION SYMPOSIUM 5

TOPIC: New TB Diagnostic Tools for Improved Case Findings
March 8, 2017 (Wednesday), 03:00 – 04:30pm
Summit Hall C/D, 4th Floor

Title & Speaker: PURE TB LAMP: The Use of Loop-mediated Isothermal Amplification for TB Diagnosis by Ma. Cecilia Ama, MD

Title & Speaker: GENOSCHOLAR: A New Line Probe Assay (LPA) Kit for TB by Ramon Basilio, MD

Objectives:
At the end of the session the participant will
- express the local experience on the TB Lamp as a possible first-line diagnostic tool
- trace back the role of LPA in programmatic management of Drug-resistant TB (PMDT
- evaluate the local experience with the new LPA kit.

Chairman: Joanne A. Apdol, MD, FPCCP
Moderator: Shelley A. Romero, MD, FPCCP

PCCP CONVENTION SYMPOSIUM 6

TOPIC: Beyond COPD: The Unmet Needs of the Elderly
March 8, 2017 (Wednesday), 03:00 – 04:30pm
Summit Hall E/F, 4th Floor

Panelists: Inocencio Alejandro, MD**;** Roy Cuison, MD; Patrick Gerard L. Moral, MD, FPCCP
Moderator / Presentor: Marilyn Ong-Mateo, MD, FPCCP

Objectives:
At the end of the session the participant will practice a holistic approach in the management of COPD in the elderly.

Description: This will be an interactive session of an elderly COPD patient. The panelists will be composed of 2 pulmonologists and 2 physicians specializing in Geriatric Medicine.
Aside from discussing COPD categorization, the session will expound on:
- cognitive and functional impairment of geriatric COPD patient
- other co-morbidities (malnutrition)
- polypharmacy
- vaccinations
- advance directives (end-of-life issues)

Sleep Medicine Session

ASC CONVENTION SYMPOSIUM 7

TOPIC: Sleep and the Specialist I
March 8, 2017 (Wednesday), 02:00 – 04:00pm
Meeting Room 4, 2nd Floor Delegation Building

Title & Speaker/s:
Sleep and Depression by Dr. Christian Guilleminault (USA)
Sleep and Pregnancy by Dr. Ruth Marie D. Divinagracia (Philippines)
Overlap syndrome: Sleep and COPD by Dr. Teofilo Lee- Chiong (USA)

Chairman: Dr. Sy Duong-Quy (Vietnam)

Sleep Medicine Session

ASC CONVENTION SYMPOSIUM 8

TOPIC: Generation Gap: Age related sleep disorders
March 8, 2017 (Wednesday), 04:00 – 05:10pm
Meeting Room 4, 2nd Floor Delegation Building

Title & Speaker/s:
Sleep and senescence by Dr. Christian Guilleminault (USA)
Adolescent sleep habits and their impact on school life by Dr. Joshua Gooley (Singapore)
Late use of Electronic Media and Sleep by Dr. Seung Bong Hong (Korea)

Chairman: Dr. Fang Han (China)

PCCP PLENARY SESSION 6

TOPIC: Removing Simple Barriers to Asthma Control by Prof. Matthew Peters, MD (Australia)
Date / Time / Venue: March 8, 2017 (Tues), 04:45 – 05:30PM
Meeting Room 1, 3rd Floor
Summit Hall C/D, 4th Floor – *live feed venue*
Chairman: Ma. Bella R. Siasoco, MD, FPCCP

Objectives:
At the end of the session the participant will
- understand the background to poor asthma control
- identify key changes in emphasis in the new GINA guidelines
- understand why changes had to be made (rationale)
- gain confidence in applying the changes to achieve asthma control
- generate learning in his/her own clinical practice that will reward and reinforce this new knowledge

FELLOWSHIP NIGHT
March 8, 2017 (Wednesday), 7:00pm
Reception Hall, PICC

Day 2 - THURSDAY, 9TH MARCH – CONVENTION PROPER

SUNRISE SESSION 2: INTER-HOSPITAL DEBATE

07:00am – 08:30 am at Banquet Hall 2 & 3
2nd/F Delegation Building

16th PCCP Inter-Hospital Engagement: The Pulmonary and Critical Care Debate

Issue: Should e-cigarettes be used as a means for smoking cessation in a heavily dependent smoker who is considering quitting smoking?

Background Setting: JT is a 45-year-old married man who smokes between 15 and 20 cigarettes per day since college. Recently, a friend was diagnosed with lung cancer, and JT reports this is his motivation for quitting. He has tried several times to quit "cold turkey" without success, saying he would sustain his efforts only for 2-3 weeks and then go back to his old habits. He has no known co-morbids and allergies; no previous hospitalizations. He works as a lawyer and consumes about 3-4 beers a week. He says he mostly smokes to keep him up while working. He has a wife and 2 children.

On physical examination, his BP is 120/80, HR 78bpm RR18 O2sat 99% at room air. BMI 26. Lungs are clear on auscultation. The rest of his physical examination findings are normal.
He consults you in the clinic and asks whether he can use e-cigarettes for smoking cessation.

PROPOSITION: E-cigarettes are an effective and safe aid in smoking cessation in a heavily dependent smoker who is considering to quit.

PRO: E-cigarettes are an effective and safe means for smoking cessation in this heavily dependent smoker.	**CON:** E-cigarettes are not an effective and safe means for smoking cessation in this heavily dependent smoker.
Katrina J. Villegas, MD (CHH) Kenneth Jorge A. Lasafin, MD (MMC) Kenneth Jay-R Alberca, MD (PSH) Neil Angelo B. Tiangco, MD (TMC)	Sayyid Ronron D. Datukon, MD (SLMC) Ruby Rose S. Bisquera, MD (CGH) Sonde Cris Punay,MD (USTH)

JUDGES: Imelda M. Mateo, MD, FPCCP; Lenora C. Fernandez, MD, FPCCP; Anthony C. Leachon, MD, FPCP
MODERATOR: Lalaine M. Mortera, MD, FPCCP
HOST TEAM: Iandrof G. Patricio, MD (MDH); Dolores Joy Ocampo-Rillera, MD (UPHDMC); Milraam L. Quinto, MD (UP-PGH)
DOCUMENTATION: Randy Joseph A. Castillo, MD (LCP); Mark Janiel I. Cacanindin, MD (PHC); Emmylou Adamos, MD (VMMC)
SESSION CHAIR: Julie Christie G. Visperas, MD, FPCCP
SESSION CO-CHAIR: Mark Leonard C. Flores, MD, FPCCP

PCCP PLENARY SESSION 7

TOPIC: The New Staging in Lung CA by Dr. Saeed Mirsadraee (United Kingdom)

Date / Time / Venue: March 9, 2017 (Thursday), 08:15 – 09:00am, Reception Hall, Ground floor
Chairman: Roland M. Panaligan, MD, FPCCP

Objectives:
At the end of the session the participant will
- apply the revisions in the new lung cancer staging
- identify the limitations of the new staging

Sleep Medicine Session

ASC CONVENTION SYMPOSIUM 9

TOPIC: Sleep Disordered Breathing Solutions
March 9, 2017 (Thursday), 07:50 – 09:00am
Meeting Room 4, 2nd Floor Delegation Building

Title & Speaker/s:
Oral appliance for OSA: an update by Dr. Liao Yu-Fang (Taiwan)
Beyond CPAP: ventilation in SDB by Dr. Mark Elliott (United Kingdom)
Minimally invasive surgery for OSA by Dr. Yap Yoke-Yeow (Malaysia)

Chairman: Keith Romeo S. Aguilera, MD, FPSSM

Sleep Medicine Session

ASC PLENARY SESSION 8

TOPIC: Forensic Sleep Medicine by Dr. Michel A. Cramer-Bornemann (USA)
March 9, 2017 (Thursday), 09:15 – 10:00am
Reception Hall, Ground floor

Chairman: Albert L. Rafanan, MD, FPCCP, FPSSM

Objectives:
At the end of the session the participant will
- recognize the inherent clinical complexities associated with complex Parasomnias and identify that these have potential far-reaching legal implications.
- briefly review the conceptual model based upon neuroscientific principles in which to better understand the broad spectrum of Parasomnias.
- define Sleep Forensics- a rapidly growing forensics investigative field.
- identify those Parasomnias which are most likely to have forensic implications.

Visit the EXHIBITS
(10:00 – 10:30 am) at 3rd/F Delegation Building

PCCP PLENARY SESSION 9

TOPIC: The Call to Personal Leadership by Mr. Francis J. Kong (Philippines)
Date / Time / Venue: March 9, 2017 (Thursday), 10:30 – 11:15am
Reception Hall, Ground floor

Chairman: Malbar G. Ferrer, MD, FPCCP
Objectives:
At the end of the session the participant will
- value their inherent talents to be leaders
- identify the levels of leadership

Sleep Medicine Session

ASC CONVENTION SYMPOSIUM 10

TOPIC: Sleep and the Specialist II
March 9, 2017 (Thursday), 10:20 – 11:30am
Meeting Room 4, 2nd floor Delegation Building

Title & Speaker/s:
Sleep and Public Health: Screening for Drowsy Driving by Dr. Tayard Desudchit (Thailand)
Sleep and Strokes by Dr. Rimawati Tedjasukmana (Indonesia)
Sleep and Renal Dysfunction by Dr. Ning-Hung Chen (Taiwan)

Chairman: Dr. Yotin Chinvarun (Thailand)

PCCP PLENARY SESSION 10

TOPIC: High Flow Nasal Oxygen (HFNO) & Non-Invasive Ventilation (NIV) in Respiratory Failure by Dr. Mark Elliott MA MD FERS (United Kingdom)
March 9, 2017 (Wednesday), 11:15am – 12:00nn
Reception Hall, Ground floor

Chairman: Teresita S. de Guia, MD, FPCCP

Objectives:
At the end of the session the participant will
- determine the physiologic differences of HFOT vs NIV
- evaluate the effectiveness of the 2 strategies in managing hypoxemia.

Sponsored and supported by:

ERS EUROPEAN RESPIRATORY SOCIETY
every breath counts

Sleep Medicine Session

ASC CONVENTION SYMPOSIUM 11

TOPIC: P2P2: OSA Matters for Asians (Concurrent Discussions)
March 9, 2017 (Thursday), 11:30am – 12:00nn
Meeting Room 4, 6, 7 & 8, 2nd/F Delegation Building

Title & Speaker: Improving CPAP acceptability among your patients by Dr. Naricha Chirakalwasan (Thailand) *(Meeting Room 4)*
Chairman: Richmond B. Ceniza, MD, FPCCP, FPSSM

Title & Speaker: Preoperative evaluation of OSA patients by Dr. Agnes T. Remulla (Philippines) *(Meeting Room 6)*
Chairman: Maria Patricia T. Puno, MD, FPSSM

Title & Speaker: Weight reduction strategies in OSA by Dr. Gabriel Jasul Jr. (Philippines) *(Meeting Room 7)*
Chairman: Rosauro C. Cabana, MD, FPCCP, FPSSM

Title & Speaker: Portable PSGs for remote areas by Dr. Tripat Deep Singh (Singapore) *(Meeting Room 8)*
Chairman: Teresita Celestina S. Fuentes, MD, FPCCP, FPSSM

LUNCHEON SYMPOSIA

Luncheon Symposium 4

Date: March 9, 2017 (Thursday)
Venue: Reception Hall, Time: 12:00nn – 1:30pm
Title & Speaker: **"Updates in the Management of COPD"** by Prof. Jadwiga Anna Wedzicha (United Kingdom)
*(Through a CME grant from **Novartis Healthcare Philippines, Inc.**)*

Luncheon Symposium 5

Date: March 9, 2017 (Thursday)
Venue: Summit C/D, 4th Floor, Time: 12:00nn – 1:30pm
Title & Speaker**: "The Emerging Role of LAMA/LABA in COPD Management"**
Prof. Klaus F. Rabe, MD, PhD (Germany)
*(Through a CME grant from **Boehringer Ingelheim**)*

Luncheon Symposium 6

Date: March 9, 2017 (Thursday)
Venue: Summit E/F, 4th Floor, Time: 12:00nn – 1:30pm
Title & Speaker/s: **"Bacteria in Respiratory Tract: Treat ot Not to Treat"**
Ricardo C. Zotomayor, MD, FPCCP (Philippines)
Rontgene M. Solante, MD, FPSMID (Philippines)
*(Through a CME grant from **Pfizer Inc.**)*

Visit the EXHIBITS
(10:00 – 10:30 am) at 3rd/F Delegation Building

PCCP PLENARY SESSION 11

TOPIC: COPD: The Role of Physical Activity by Prof. Klaus F. Rabe, MD, PhD (Germany)
Date / Time / Venue: March 9, 2017 (Thursday), 02:00 – 2:45pm; Reception Hall, G/ F, PICC

Chairman: Bernice T. Ong-de la Cruz, MD, FPCCP
Objectives:
At the end of the session the participant will
- Identify the current scientific evidences of the benefits of pulmonary rehabilitation
- understand the mechanisms on how pulmonary rehabilitation improve outcomes in COPD
- instruct a COPD patient on how to increase physical activity in places with no physical rehabilitation facilities based on evidence

Sleep Medicine Session

ASC CONVENTION SYMPOSIUM 12

TOPIC: Sleep in the Workplace
March 9, 2017 (Thursday), 01:20 – 2:30pm
Meeting Room 4, 2nd floor, PICC

Title & Speaker/s:
- **Chronobiology and Sleep Research and the Design of shift work routines** by Prof. Gayline F. Manalang Jr., PTRP, MOH (Philippines)
- **Personalizing treatment for shiftwork sleep disorders** by Manuel C. Jorge II, MD, FPCCP, FPSSM (Philippines)

Chairman: Jimmy V. Chang, MD, FPSSM

PCCP CLINICAL SYMPOSIUM 13

TOPIC: GOLD 2017
March 9, 2017 (Thursday), 03:00 – 04:30pm
Reception Hall, G/F, PICC

Speaker & Topic: Does "Early COPD" diagnosis matter? By Tomas M. Realiza, MD, FPCCP
Objectives:
At the end of the session, the participant will
- recognize the importance of diagnosing early COPD
- practice the steps on how to diagnose early COPD
- enumerate the treatment options for early COPD

Speaker & Topic: COPD therapy: Thoughts on De-escalation by Prof. Klaus F. Rabe, MD, PhD
Objectives:
At the end of the session, the participant will
- understand the data on blood eosinophils as a biomarker for ICS responsiveness
- comprehend the rationale of the ICS (de-escalation) withdrawal therapy among COPD patients
- adhere to guidelines on how to institute de-escalation therapy: Who? When? How?

Speaker & Topic: Pharmacologic Treatment Algorithm: Story Behind by Prof. Jadwiga Anna Wedzicha
Objectives:
At the end of the session, the participant will
- apply the GOLD 2017 treatment algorithm
- comprehend the rationale and controversies for the preferred treatment pathway"
- in the GOLD 2017 pharmacologic treatment pathway algorithm

Speaker & Topic: Panel Discussion: GOLD 2017: Strengths and Future Directions by Prof. Jadwiga Anna Wedzicha
Objectives:
At the end of the session, the participant will
- understand the merits of the revisions in the GOLD 2017
- enumerate suggestions on how to further improve the GOLD 2017

Chairman: Luisito F. Idolor, MD, FPCCP
Moderator: Joel M. Santiaguel, MD, FPCCP

PCCP CLINICAL SYMPOSIUM 14

TOPIC: Interactive Discussion on Pleural Effusions
March 9, 2017 (Thursday), 03:00 – 04:30pm
Summit Hall C/D, 4th floor, PICC

Speakers: Ariel A. Boongaling, MD (Pulmonology)
Edmund E. Villaroman, MD, FPATACSI (TCVS)
Elizabeth Ann S. Alcazaren, MD (Pathology)

Chairman: Julius Caesar J. Dalupang, MD, FPCCP
Co-chair & Moderator: Christine L. Chavez, MD, FPCCP

Objectives:
At the end of the session the participant will
- To present current knowledge and practice about the diagnostic and therapeutic modalities for pleural effusion.
- To utilize the best clinical reasoning and decide on the best options in the management pleural effusion.

Description:
This clinical symposium will be an interactive case discussion about two cases of pleural effusion. The audience will be asked to answer three questions per case using individual keypads. After each question or during the flow of discussion, the speakers will be asked for their evidence-based and experience-based comments.

PCCP CLINICAL SYMPOSIUM 15

TOPIC: Clinical Year Review in Critical Care
March 9, 2017 (Thursday), 03:00 – 04:30pm
Summit Hall E/F, 4th floor, PICC

Title & Speaker/s:
New Oral Anticoagulants: The Good, the Bad and the Ugly by Ivan N. Villespin, MD, FPCCP (Introduction & Rationale) and Maria Paz B. Mateo, MD, FPCCP
Objectives: At the end of the session the participant will discuss the role of the newer anticoagulants in the management and prophylaxis in venous thromboembolism

Weaning by Rommel DLR Bayot, MD, FPCCP
Objectives:
At the end of the session the participant will
- Present the latest ATS/ACCP clinical practice guidelines on liberation from mechanical ventilation
- Apply guidelines in local setting

Prone Positioning by Emily Tan-Aventura, MD, FPCCP
Objectives:
At the end of the session the participant will
- enumerate strategies for management of ARDS
- recognize the clear benefits of prone positioning as to oxygenation and lung mechanics.

Chairman: Ma. Encarnita Blanco-Limpin, MD, FPCCP
Moderator: Cesar Antonio O. Ligo, MD, FPCCP

Sleep Medicine Session

ASC CONVENTION SYMPOSIUM 16

TOPIC: Insomnia from the Bedroom to the Clinic
March 9, 2017 (Thursday), 02:50 – 04:00PM
Meeting Room 4, 2nd floor, PICC

Title & Speaker/s:
- **Insomnia-proofing the bedroom** by Dr. Deborah Bernardo (Philippines)
- **Side Effects and Toxicity of Sedative Hypnotic Agents** by Dr. Michel A. Cramer-Bornemann (USA)
- **Cognitive Behavioral Therapy** by Dr. Wynette Marie Solis (Philippines)

Chairman: Dr. Rusdi Abd Rashid (Malaysia)

Sleep Medicine Session

ASC CONVENTION SYMPOSIUM 17

TOPIC: Bedroom Bumps and Grind
March 9, 2017 (Thursday), 04:00 – 05:10pm
Meeting Room 4, 2nd floor, PICC

Title & Speaker/s:
Movement disorders of sleep by Dr. Rosalina Picar (Philippines)
Solving the snore: From medical to surgical management by Dr. Michael Alexius A. Sarte (Philippines)

Chairman: Dr. Yuichi Inoue (Japan)

PCCP PLENARY SESSION 12

TOPIC: HAP & VAP: IDSA and PCCP perspective
Isauro Q. Guiang Jr., MD, FPCCP
Rodolfo S. Pagcatipunan Jr., MD, FPCCP
Mario M. Panaligan, MD, FPCP

Date / Time / Venue: March 9, 2017 (Thursday), 04:30 – 05:15pm
Reception Hall, G/ F, PICC

Chairman: Eloise Arabelle M. Caburnay, MD, FPCCP

Objectives:
At the end of the session the participant will
- evaluate the current IDS-ATS HAP and VAP guidelines as to diagnosis and management
- consider PCCP Lung Infection Council recommendations on diagnostics for applicability in the local settings

PSSM Business Meeting
05:00 – 07:00pm, Meeting Room 8, 2nd floor, PICC

TRAINING INSTITUTION'S REUNION
March 9, 2017 (Thursday), 7:00pm

Day 3 - FRIDAY, 10TH MARCH – CONVENTION PROPER

SUNRISE SESSION 3: MEDICAL ETHICS

07:00am – 09:00am at Reception Hall, G/F, PICC

Pulmonology & Social Media by **Ma. Gia B. Sison, MD, DPCOM**
Chairman: Roland M. Panaligan, MD, FPCCP
Objectives:
At the end of the session the participant will

- To present different practical applications of technology and social media in the practice of medicine and pulmonology.
- To discuss the ethical approach of using online platforms and social media applicable in our daily clinical practice.

PCCP PLENARY SESSION 13

TOPIC: Issue in the Management of IPF by Dr. Philip Eng (Singapore)
Date / Time / Venue: March 10, 2017 (Friday), 09:15 – 10:00am; Reception Hall, Ground floor

Chairman: Joven Jeremius Q. Tanchuco, MD, FPCCP
Objectives:
At the end of the session the participant will

- evaluate a patient with ILD according to the different clinical spectra of the disease
- decide on initial management plans
- analyze the issues on treatment

Visit the EXHIBITS
(10:00 – 10:30 am) at 3rd/F Delegation Building

PCCP PLENARY SESSION 14

TOPIC: State of the Art: COPD Exacerbations by Prof. Jadwiga Anna Wedzicha (United Kingdom)
Date / Time / Venue: March 10, 2017 (Friday), 10:30 – 11:15am; Reception Hall, Ground floor

Chairman: Lenora C. Fernandez, MD, FPCCP
Objectives:
At the end of the session the participant will

- identify the limitations in the definition/diagnosis of COPD exacerbations
- analyze what is known and unknown about the COPD exacerbation pathogenesis and therapy

PCCP PLENARY SESSION 15

TOPIC: FERMIN MANALO LECTURE

Sunrise, Sunset: Starting vs Retiring Pulmonologist
Parkash T. Mansukani, MD, FPCCP & Radha Marie M. Sillano, MD

Date / Time / Venue: March 10, 2017 (Friday), 11:15am – 12:00nn
Reception Hall, Ground floor

Chairman: Earl Louis A. Sempio, MD, FPCCP

Objectives:
At the end of the session the participant will
- To present the insights of a starting and a retiring pulmonologist.
- To demonstrate the unique transition between training, medical practice and retirement.
- To present the academic and pharmaceutical/corporate tracks as alternatives to clinical practice for a pulmonologist
- To correct misconceptions and validate truths in both the academic and pharmaceutical or corporate lives

LUNCHEON SYMPOSIA

Sleep Medicine Session

Luncheon Symposium 7

Date: March 10, 2017 (Friday)
Venue: Reception Hall, Time: 12:00nn – 1:30pm
Title & Speaker: **"The Implications of Sleep Disordered Breathing and Sleepiness on Driving"** by Dr. Mark Elliott MA MD FERS
*(**PCCP & PSSM** sponsored CME session)*

Luncheon Symposium 8

Date: March 10, 2017 (Friday)
Venue: Summit C/D, 4th Floor, Time: 12:00nn – 1:30pm
Title & Speaker: **"Dual Facets of Methylxanthines in Airway Diseases"** by Lenora C. Fernandez, MD, FPCCP
*(Through a CME grant from **United American Pharmaceuticals, Inc.**)*

Luncheon Symposium 9

Date: March 10, 2017 (Friday)
Venue: Summit E/F, 4th Floor, Time: 12:00nn – 1:30pm

Title & Speaker: **"VTE TREATMENT: *Anong Bago*?...**
Ivan N. Villespin, MD, FPCCP
Marie Simonette V. Ganzon, MD

*(Through a CME grant from **Corbridge Group Phils., Inc.**)*

PCCP BUSINESS MEETING
March 10, 2017 (Friday), 2:00pm
Reception Hall, Ground Level, PICC

CLOSING CEREMONIES

FAREWELL DINNER
INDUCTION OF NEW OFFICERS

March 10, 2017 (Friday), 06:00pm
Summit Hall D, 4th floor, PICC

Faculty abstracts: PULMONARY MEDICINE

The New TB National Strategic Plan 2017-2012
Anna Marie Celina G. Garfin, MD

The Pulmonary Physical Exams … Dying or Adopting?
Errol O. Ozdalga, MD

Removing Simple Barriers to Asthma Control
Matthew Peters, MD

The New Staging of Lung Cancer
Saeed Mirsadraee, MD

High-Flow Nasal Oxygen (HFNO) and NIV in Respiratory Failure
Mark Elliott, MD

Issues in the Management of Idiopathic Pulmonary Fibrosis
Philip Eng, MBBS, MMed (Int. Med.)

Non-tuberculous mycobacteria infections in bronchiectasis
Eva Polverino, MD, PhD

The New TB National Strategic Plan 2017-2022

Anna Marie Celina G. Garfin, MD
National TB Control Program manager, Department of Health, Disease Prevention and Control Bureau

ABSTRACT

2017-2022 Philippine Strategic TB Elimination Plan Phase 1 (PhilSTEP 1)

The Philippines is one of the 9 high tuberculosis (TB) burden countries that have reached the Millennium Development Goals of decreasing by half the mortality and prevalence rates due to TB based on the 1990 Guidelines and decrease the trend for the incidence rate. However, despite this accomplishment, Philippines is still one of the 30 countries with high burden for drug susceptible and drug resistant TB cases.

In 2016, the National TB Control Program (NTP) in preparation for the formulation of the 2017 to 2022 national Strategic Plan, conducted a joint Program review with partners. Achievements and Challenges of the Program were presented and the main recommendations were the following:

1. Develop a roadmap towards sustainability
2. Act on the TB law once passed
3. Embrace and scale-up new technologies, medicines and approaches
4. Innovate and be bold to solve problems.

With these findings and recommendations, the Program will implement 7 strategies that are aligned with the Philippine Health Agenda. The impact indicators will be reduction in TB burden as shown by the decrease in TB mortality and TB incidence rates, zero catastrophic cost to TB families affected and having a responsive delivery of TB services.

The 7 strategies (A.C.H.I.E.V.E.) to be implemented are the following:

1. **A**ctivate TB patient support groups and communities to access quality TB services
2. **C**ollaborate with other government agencies and partners to reduce out-of-pocket expenses of TB patients and expand social protection measures
3. **H**armonize national and local efforts mobilize adequate and capable human resources for TB elimination
4. **I**nnovate TB surveillance, research and data generation for decision-making
5. **E**nforce NTP TB care and prevention standards and use of quality TB products and services
6. **V**alue clients an patients through provision of integrated patient-centered services
7. **E**ngage local government units to implement localized TB elimination plans through multi-sectoral collaboration.

The Pulmonary Physical Exams … Dying or Adopting?

Errol O. Ozdalga, MD
Clinical Associate Professor and Director of Stanford Medicine 25, Department of Medicine, Stanford School of Medicine, California, USA

ABSTRACT

As medicine evolves with the growth of technology and time for being with our patients gets attacked by growing demands from other needs, questions are beginning to be asked … isn't the physical exam valuable anymore? Does the pulmonary exam have a purpose in medicine? This is partially fueled by the fact that the physical exam is often not being taught in many schools in the United States. While students learn basics, they are not taught at the bedside, where disease is found. It is being argued by some that with the improvements of ultrasound and other technologies, combined with the lack of this education, we cannot expect that the pulmonary exam, like other aspects of the exam will be part of the future of medicine.

We will explore the reasons why medicine in the United States is leading to more time away from the patient, and discuss some of the challenges related to that change with possible implications to challenges that you may be facing or potentially will face in the future. We will review some aspects of the evidence base for the pulmonary exam, and share the efforts of the Stanford Medicine 25: an initiative at Stanford University, to revive the culture of bedside medicine and provide resources online and in person.

Removing Simple Barriers to Asthma Control

Matthew Peters, MD
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ABSTRACT

The pathological basis of asthma is now better, if imperfectly, understood as is the necessity to focus on preventative therapy to achieve the twin goals of improving asthma symptom control and reducing the future risk of severe asthma events. These most notably are asthma exacerbations but also the longer term harms of poor current control; whether that be fixed airflow obstruction or systemic side effects of repeated courses of oral corticosteroids.

Studies performed in many regions have demonstrated that good asthma control is not achieved in many or the majority of those living with asthma. This is not because of the absence of effective asthma treatments. Shifting attitudes amongst doctors and patients is essential. There is a strong belief that hypertension and hypercholesterolemia should be treated to reduce risk of vascular events that might never occur.

At the same time, there seems a remarkably permissive approach to the non-usage of preventer therapy in asthma even though the disease is actually present and readily responsive. A key change in the revised GINA guidelines is the new focus on attending to simple errors that might compromise the effectiveness of preventer therapies. These, of course, include poor adherence and suboptimal inhaler technique. In resource-poor countries, cost of preventer medication is important but a potentially greater cost is generated by the use of ineffective treatments, such as oral bronchodilators, and the loss of employment or trade income when poor asthma control impedes capacity for work.

The New Staging of Lung Cancer

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ABSTRACT

8th edition of the TNM classification of lung cancer

In 2012, there were 1.8 million new cases of lung cancer worldwide that resulted in over 1.5 million deaths. Lung cancer is the number one cause of death from cancer in males and is most common in Central and Eastern Europe and Eastern Asia.

Staging of cancer at the time of diagnosis is the most important predictor of survival, and treatments options should be based on the disease stage. Since its introduction, the tumour, node, metastasis (TNM) staging of lung cancer has undergone significant changes based on collected data.

In 2010, the International Association for the Study of Lung Cancer (IASLC) published a major revision of the TNM staging system for lung cancer (7th edition) that was based on multicentre and larger cohorts of patients being treated for lung cancer. Despite significant improvement, the data had deficiencies in the global distribution of the data. The latest classification (8th edition) is based on information from 77,156 patients with a new diagnosis of lung cancer between 1999 and 2010.

The highlight of the 8th edition is the sub/re-classifications of the TNM based on the survival outcome. Based on the prognostic data, the main changes in the sub-classifications are related to the tumour size and other T descriptors; number of the positive nodal stations; and the number of distal organs involved. Despite its limitations, the new staging system is expected to positively impact the management of patients with lung cancer.

High-Flow Nasal Oxygen (HFNO) and Non-invasive Ventilation (NIV) in Respiratory Failure

Mark Elliott, MD
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ABSTRACT

High flow nasal oxygen (HFNO) was initially developed to provide more accurate and more consistent increased fractional oxygen concentrations, together with better humidification. However HFNO also has other physiological effects which may be important in improving outcomes in patients with respiratory failure. These include a small amount of PEEP and lavaging of the dead space, reducing carbon dioxide rebreathing. As a result HFNO has been considered as a potential alternative, or complementary, to non-invasive ventilation (NIV).

A large, multicenter, randomised controlled trial in patients with non-hypercapnic hypoxemic respiratory failure showed no difference in intubation rates between NIV, standard oxygen and high flow oxygen therapy. However there was a significant difference in favour of high flow oxygen in 90 day mortality.

The role of HFNO in hypercapnic respiratory failure remains to be determined, but it may either be a means of preventing some patients from requiring NIV at all or an alternative in those intolerant of NIV.

Issues in the Management of Idiopathic Pulmonary Fibrosis

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ABSTRACT

Interstitial lung disease is a broad group of diseases which affects the lung interstitium, resulting in cough or shortness of breath. The prognosis depends on the cause, and a huge group of patients have interstitial lung disease due to sarcoidosis, connective tissue or drugs. One of the biggest difficulties is with Idiopathic Pulmonary Fibrosis, where the etiology remains unknown. Over the past 3 years, recent advances have been made in the understanding of IPF, with better diagnostic criteria and more available treatment.

Non-tuberculous mycobacteria infections in bronchiectasis

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ABSTRACT

Bronchiectasis is an underestimated chronic respiratory disease that has raised increasing interest worldwide in the last 5 years. Although it was considered an orphan disease up to recent years, the more recent epidemiological estimations describe this heterogeneous condition as the 3rd most common chronic respiratory disease after asthma and COPD. The pathophysiology bronchiectasis is mainly characterized by the presence of chronic airways inflammation, reduced mucociliary clearance and recurrent or chronic infections.

Non-tubercoulous mycobacteria (NTM) infections are frequent infections in bronchiectatic patients, particularly in middle age female patients. In fact, the presence of bronchiectasis is described as a condition predisposing to NTM infections but also as a consequence of this infection (pulmonary sequelae). NTM can have different clinical and radiological manifestations and involve different tissues and organs. A correct microbiological identification is crucial in order to define therapy and prognosis. ATS criteria (2007) set the diagnostic criteria to define when NTM infections should be treated. Unfortunately adherence to guidelines has been quite poor worldwide, leading to inappropriate management of these infections and potentially to increased antibiotic resistance. Specific therapeutic recommendations are available today for different NTM infections due to the fact that different microorganisms show different virulence, antimicrobial susceptibility, risk factors and prognosis. The management of NTM infections in bronchiectasis is very challenging and adherence to guidelines and strict follow-up are highly recommended.

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Movement Disorders in Sleep: Restless and Sleepless
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Sleep and Pregnancy
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Chronobiology and sleep research and the design of shift work routines
Gayline F. Manalang Jr., PTRP, MOH

Weight Management Strategies in Obstructive Sleep Apnea
Gabriel Jasul, Jr., MD

Cognitive Behavioral Therapy for Insomnia (CBT-I)
Wynette Marie Solis, MA

Personalizing Treatments for Shift Work Disorder
Manuel Jorge II, MD

Sleep Medicine: Promise and Directions

Christian Guilleminault, MD
Director of Training, Stanford University Sleep Disorders Center, California, USA

ABSTRACT

Sleep Medicine has advanced throughout the world and congresses are on many continents. The World congress in Sleep Medicine was in Seoul in 2015 and will be in Prague in 2017, and the International Pediatric Sleep Association meeting was in Taipei in 2016 and will be in Lille (France) in 2018.

Advances have involved the “hypersomnias”: The ICSD 3rd ed. recognizes type-1 and type 2 narcoleptics and hypersomniacs. But many questions this subdivision: Type-1 narcoleptics (also labelled narcolepsy-cataplexy) appears well defined. It is related to the des truction of the hypocretin neurons in the lateral hypothalamus and destruction of the 5 bundles impinging on other structures. Recent imaging (PET) and performance tests studies, indicate that many brain-structures affected by the elimination of the 5 bundles show abnormal findings with *hypometabolism i*n in the frontal lobe, posterior cingulum, angular gyrus and part of the parietal lobe; these changes associated with more errors on the performance test. There is also *hypermetabolism* in the fusiform gyrus, striatum, hippocampus, thalamus, basal ganglia , and cerebellum than in type-2 narcoleptics.

But the type 2 narcoleptics are significantly less impaired at our different testing than type-1 patients, they are different from controls, they even have significantly more hypometabolism in Heschl gyrus and in the paracentral lobule than type-1 narcoleptics. They have much less impairment in the learning and memory regions and perform better than the type-1 narcoleptics at cognitive testing and have better maintenance of overall sleep and wakefulness cycles, but have daytime sleepiness objectively. The question is again raised concerning the name ”narcolepsy” if such a term should not be reserve only for the type-1 with cataplexy and absence of hypocretin in CSF. Such patients are much more affected than any other ”hypersomniacs” and Ohayon et al recent morbidity study shows that co-morbidity including reduction in life expectancy is shown.

The world of OSA has shown also advances: Abnormal breathing seems in many cases to begin in childhood. The upper-airway, ie a collapsible tube during sleep due to disappearance of reflexes during sleep, is also susceptible to minor anatomic changes that occur early in life due to absence of normal functions: ie sucking, swallowing, chewing and nasal breathing: The inter-maxillary cartilage, and the dento-alveolar ligament-both active growth center of the oral-facial region till about 14-15 years are not stimulated as it should be and normal oral facial growth do not occur leading to greater risk of collapse during sleep. Fat that primary infiltrate the tongue muscles will also have a role by again increasing the soft tissue mass and narrowing the upper-airway increasing its collapsibility.

Recognition of the above problems early in life should lead to functional reeducation through myofunctional therapy (MFT) in association with orthodontic treatments, in children as adenotonsil-

lectomy (T&A) are not sufficient to eliminate risks of OSA. MFT have even been used in adults and has shown to significantly reduce adult AHI, up to 50%, but compliance with treatment is important, and at least 3/12 months every year, exercises to maintain normal UA muscle tone are need after the initial 3 to 6 months re-education period.

Recognition early in life of risk factors and their treatment will decrease the development of OSA.
In adult without major obesity and AHI<55 and age to 60 years may benefit from XII nerve implantation, but this treatment is still in its beginning phase despite the fact that progress has been made in our understanding of where to stimulate (most anterior part of the XII nerve to avoid stimulating retrusive fibers) and which stimulating frequencies to use. Hypoglossal nerve stimulation has limitation, but has been an alternative treatment for patients that failed other treatment particularly PAP therapy

Restless Leg Syndrome is still a major syndrome in sleep-medicine, the hypothesis is still that there is an iron abnormality involved but not of the circulating iron, but of the brain iron, either related to abnormality of the blood-brain barrier or other abnormalities. Dopamine agonists always lead to “augmentation” if prescribe long term, Rotigotin patch may help but this long acting dopamine agonist may not be the solution once augmentation is noted, but IV iron perfusion has been performed even in patient with normal blood ferritin level wit good results. Perfusion in 1-L normal saline passed in 1 to 2 hours has been given good results for 6 to 18 months without complaints in chronic RLS patients.

Cognitive Behavior Therapy for Insomnia (CBT-I) is more and more used in the treatment of chronic insomnia and long term positive results have been confirmed in several studies with a long term success rate of about 60%. The available hypocretin-antagonist Suvorexant (Belsomra; Merck) is not a widely used medication. It is recommended for maintenance insomnia, but most commonly maintenance insomnia is related to abnormal breathing during sleep, with “flow limitation” and mild OSA [UARS] and secondary frustration related to waking up all the time; the association of CPAP, Dental appliance and CBT-I usually give better results. The problem of the medication is its absence of impact on sleep-onset insomnia with activity late in the night. But the mode of action seems to be safer than for GABA-type drugs with no impact on memory and no residual sleepiness.

Efforts are made to study neuro-muscular patients early during sleep, as breathing abnormalities during sleep largely precede changes in pulmonary function test performed awake. Systematic sleep testing is more and more recommended when such disorder is suspected, with usage of bilevel initially, that may give a better quality of life during wakeful ness to patients.

These are some of the recent advances in the field.

Principles of PAP Titration for Sleep Disordered Breathing

Teofilo Lee-Chiong, MD
Professor of Medicine, University of Colorado, National Jewish Health, Colorado, USA

ABSTRACT

Positive airway pressure (PAP) therapy is the treatment of choice for most patients with sleep disordered breathing. Selecting the proper modality and optimal settings guarantee the best outcomes. This presentation will provide an overview of the different positive airway pressure devices, including continuous PAP, automatic PAP, bilevel PAP, pressure control, volume-assured pressure support, servo ventilation, and volume control, and recommendations on their use.

Must Know: Sleep Essentials Overcoming Insomnia

Teofilo Lee-Chiong, MD
Professor of Medicine, University of Colorado, National Jewish Health, Colorado, USA

ABSTRACT

Insomnia is the most common sleep-related disorder. It consists of difficulty falling asleep (sleep onset insomnia), difficulty staying asleep (sleep maintenance insomnia) or earlier-than-desired morning awakenings (terminal insomnia). These various sleep disturbances are associated with impairments of daytime functioning. This presentation will discuss the major presenting features, demographic characteristics, causes and complications of chronic insomnia, and provide guidelines on evaluating and treating patients with this disorder.

Science of Non-invasive Ventilation

Teofilo Lee-Chiong, MD
Professor of Medicine, University of Colorado, National Jewish Health, Colorado, USA

ABSTRACT

Non-invasive ventilation is increasingly being used both in the hospital and home to manage patients with acute and chronic respiratory failure. Used properly, non-invasive ventilation has been shown to improve survival, reduce morbidity, decrease hospital length of stay, improve quality of life, and lower healthcare costs. This presentation will cover the pathophysiology of hypoventilation as it progresses from mild to advanced disease.

Overlap Syndrome: Obstructive Sleep Apnea and COPD

Teofilo Lee-Chiong, MD
Professor of Medicine, University of Colorado, National Jewish Health, Colorado, USA

ABSTRACT

Obstructive sleep apnea (OSA)-chronic obstructive pulmonary disease (COPD) overlap syndrome is defined by the simultaneous presence of both disorders in the same individual. Each disorder has unique presentations, but both share many common features. Managing patients with OSA-COPD overlap syndrome can be challenging, and requires a thorough understanding of the mechanisms responsible for sleep disturbances and respiratory derangements. This presentation will tackle some of the main diagnostic and therapeutic conundrums of clinical management.

Research collaboration across Asian countries

Yun Kwok Wing, MD
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ABSTRACT

Sleep problems and disorders, for example, sleep deprivation in school-aged children and adolescents is an emerging epidemic across the world. Numerous studies consistently indicate that the suggested amount of sleep is rarely followed by children and adolescents and poor sleep is associated with pervasive consequences for their health, academic achievement and overall well-being.

Previous studies suggested that Asian adolescents obtain nearly an hour less sleep than their European and American counterparts. However, most studies varied in their methodologies such sampling, measurement tools and study design. In addition, the similarities and differences in cross-cultural/ethnic perspectives of sleep problems may assist to further the understanding of the etiology of the disorders. An example is the difference in the facial morphology that may explain the paradox of the epidemiology of OSA between Chinese and Caucasian (similar prevalence despite the disparaging rate of obesity).

The establishment of the Asian Society of Sleep Medicine promotes a platform to foster and develop research across Asian countries. It provides us a privileged opportunity to study sleep problems and patterns across different age groups, cultures and regions. For example, as sleep deprivation is closely related to a web of interactive factors including cultural, biological, school, environmental and social aspects, a multi-country trans-Asian study will allow us to understand its complex interactions that closely link to children and adolescents' sleep and health.

We will re-examine the current scenario of sleep research across Asia, especially looking for epidemiological aspects of sleep patterns and problems. We will then propose a feasible research plan by establishing an Asian database (e.g., various sleep disorders like OSA) and examining the potential cultural differences in sleep problems and patterns among school aged children and adolescents and their parents.

Home Sleep Testing in Remote Areas in ASEAN region

Tripat Deep Singh, MD
Assistant Professor, College of Medicine, Pondicherry Institute of Medical Sciences, India

ABSTRACT

Prevalence of Obstructive Sleep Apnea (OSA) in general population is high and comparable to rest of the world in ASEAN region. Prevalence of OSA is also high in different disease states. Treatment of OSA improves quality of life and also lead to improvement in co-morbidities. OSA can be diagnosed and treated by two methods- in-lab testing and CPAP titration or Home Sleep Testing (HST) and Auto CPAP (APAP). There are very few Sleep labs and also shortage of trained manpower, both Sleep Physicians and Sleep Technologist, in ASEAN region and Sleep labs are mainly located in big cities. There is no re-imbursement for Sleep diagnostics or therapy and patients pay for these services out of their pocket. There is a need for cheap, less technically demanding, less time consuming and equally effective as PSG approach. HST-APAP approach is less costly, less technically demanding and as effective as PSG-CPAP Titration approach. HST-APAP is a good option to increase diagnosis of OSA and its treatment in remote areas of ASEAN region.

Sleep in the ICU

Tripat Deep Singh, MD
Assistant Professor, College of Medicine, Pondicherry Institute of Medical Sciences, India

ABSTRACT

Sleep and sedation are not same. Sleep in the ICU is highly fragmented and equally distributed between day and night. Sleep in the ICU can be studied by polysomnography, bispectral index, actigraphy or subjective assessment by questionnaires. In the ICU, sleep architecture is not the same as in a healthy person, and two new stages has been proposed: atypical sleep and pathological wakefulness. A lot of factors can disrupt sleep in the ICU, such as environmental factors, pathophysiological factors, and disrupted circadian rhythm. There is no robust long-term ICU outcomes with regards to sleep available. Non-pharmacological interventions like ear plug plus eye mask has been shown to improve delirium and subjective sleep parameters in ICU patients. The wise use of drugs in the ICU may help to improve sleep. There is conflicting evidence regarding role of melatonin in ICU patients. Remelteon has been shown to improve delirium without effect on sleep parameters.

Late use of electronic media and its association with sleep, depression, and suicidality among Korean adolescents

Seung Bong Hong, MD
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ABSTRACT

Objective: We aimed to investigate the association of adolescents' last electronic media use time with their sleep and mood disturbances, including depression and suicidality. We also examined whether sleep disturbances and duration mediated the relationship between last media use time and mood disturbances.

Methods: This cross-sectional, school-based, online survey was administered by the Sleep Center at Samsung Medical Center and the Korea Centers for Disease Control and Prevention (KCDC) in 2011. A total of 26,395 participants (12,593 male and 13,802 female) were recruited from 150 middle and high schools representative of nationwide adolescents from 15 administrative districts in Korea. The sleep habits of participants on weekdays and weekends were evaluated using a questionnaire. Sleep disturbances, depression, and suicidality were assessed using the Korean versions of the Global Sleep Assessment Questionnaire, Epworth Sleepiness Scale, and Beck 19-item Scale for Suicide Ideation. We also collected last media use time, from which we subtracted actual bedtime.

Results: Late electronic media use was significantly associated with increased mood disturbances including depression and suicidality directly, but not indirectly via sleep duration or disturbances.

Conclusion: Our results suggest that adolescents might benefit from the restricted use of electronic media after bedtime in terms of their mood and sleep. Moreover, education regarding media use at night might be helpful in preventing youth suicide.

Adolescent sleep habits and their impact on school life

Joshua J. Gooley, MD
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ABSTRACT

Sleep is important for the mind and body. However, many adolescents curtail their sleep in exchange for study time or the pursuit of leisure activities.

We examined the consequences of short sleep on performance and mood in adolescents attending schools in Singapore. Based on a survey of sleep habits in more than 1,800 adolescents across 7 schools, we found that shorter nocturnal sleep duration on school nights was associated with poorer self-rated health, higher body mass index, higher depression scores, and lower self-reported grades.

In a pair of quasi-laboratory studies performed at a boarding school, we also found that exposure to short sleep (5 hours of time in bed per night) was associated with impaired vigilance, vocabulary learning, and mood compared with exposure to an age-appropriate amount of sleep (9 hours of time in bed per night). Together, these studies suggest that exposure to insufficient sleep may erode the value of formal education, with negative consequences for student performance and well-being.

Oral Appliances for Obstructive Sleep Apnea: An Update

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ABSTRACT

As the general public and our specialty better recognize the interactions between craniofacial dental morphology and obstructive sleep apnea, orthodontists are expected to become proficient in the diagnosis and management of obstructive sleep apnea. Although not as predictable and effective as continuous positive airway pressure therapy, the gold standard treatment for obstructive sleep apnea, oral appliances (OA) remain an important therapeutic consideration.

The most commonly used OA reduces upper airway collapse by advancing the mandible. There is a strong evidence base demonstrating OA improve obstructive sleep apnea in the majority of patients, including some with severe disease. Although short-term adverse effects are common, OA are generally well tolerated. Long-term dental changes do occur, but these are subclinical and do not preclude continued use.

This presentation will (1) introduce our interdisciplinary approach in treating obstructive sleep apnea; and (2) provide our clinical guidelines for OA use, patient selection, design features, and follow-up.

Beyond CPAP: Ventilation in Sleep Disordered Breathing

Mark Elliot, MD, FERS
Professor, University of Leeds, UK

ABSTRACT

There are a number of conditions for which continuous positive airway pressure (CPAP) would not usually be considered as a mode of ventilatory support. These include patients with either slowly or rapidly progressive neuromuscular disease, chest wall deformity and some patients with obstructive lung disease. However in these patients, upper airway obstruction is more common and CPAP may be an option initially. Detailed physiological testing and a sleep study will help in making this decision. Other patients will initially start CPAP for obstructive sleep apnea but "fail" and for some NIV is an option; what constitutes "failure" is a topic for discussion. Complex sleep apnoea refers to the development of central sleep apnea de novo in patients with obstructive sleep apnea as a consequence of CPAP therapy; the management options will be discussed. Finally the management of central sleep apnea, particularly in patients with heart failure, will be discussed.

Obstructive Sleep Apnea and Stroke

Rimawati Tedjasukmana, MD
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ABSTRACT

Numerous studies have identified risk factors for stroke, including hypertension, atrial fibrillation, diabetes, and smoking. OSA is associated with a 3.7 times increase incident of stroke. Emerging data implicate obstructive sleep apnea (OSA) in the pathogenesis of risk factors associated with ischemic stroke. These associations are believed to be mediated by adverse physiological responses to recurrent periods of pharyngeal occlusion and consequent oxyhemoglobin desaturation-resaturation. These responses result in free radical generation, release of proinflammatory and prothrombotic mediators, and surges in sympathetic nervous system activity and blood pressure.

Several cross sectional and prospective studies have found strong associations between OSA and stroke. The obstructive sleep apnea syndrome significantly increases the risk of stroke, and the increase is independent of other risk factors. In addition several studies suggest that OSA in the post stroke patient reduces motivation, decreases cognitive capacity, and may increase the risk of recurrent stroke and death.

Renal Disease in OSA

Ning-Hung Chen, MD
Director, Sleep Center, Chang Gung Memorial Hospital, Taiwan

Obstructive sleep apnea (OSA) syndrome is a prevalent disorder. Cardiovascular consequence such as hypertension, ischemic heart or stroke, and neurocognitive deficit have mostly been addressed in the past years. Endothelium injury due to intermittent hypoxia was the key mechanism of cardiovascular and neurocognitive disorder. Albuminuria, indexed by UACR, is a sensitive indicator for endothelium injury and has been shown to be a cardiovascular risk factor in diabetics, hypertensives, and general population. Chronic kidney injury such as end-stage renal disease and proteinuria were closely associated with OSA. Lowering albuminuria is associated with better health outcomes and has become one of the targets in treating patients with chronic kidney disease with or without hypertension or diabetes. Our group already demonstrated an increased UACR in OSA syndrome patients without diabetes and hypertension. Treatment of OSA by CPAP could reverse the proteinuria is also proved. A report of renal biopsies of OSA have shown glomerulomegaly and focal segmental sclerosis which increased glomerular filtration and blood flow in previous report. In this lecture, the prevalence and the mechanism of renal injury in patient of obstructive sleep apnea will be introduced.

OSA Matters for Asians: Improving CPAP Acceptability among your patients

Naricha Chirakalwasan, MD
Assistant Professor, Pulmonary and Critical Care Division, Department of Medicine, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand

Continuous positive airway pressure (CPAP) is currently a goal standard treatment for obstructive sleep apnea (OSA). However compliance remains the main problem for its success. Many interventions designed to improve compliance have been proposed. Factors which are known to be associated with good CPAP compliance include higher body mass index, higher Epworth sleepiness scale score, history of witnessed apnea, reduction in daytime sleepiness with CPAP therapy, and compliance during the first few weeks (2-4 weeks) (known to predict the long term compliance). Factors which are known to be associated with poor CPAP compliance include the use of anti-depressants and CPAP induced sleep disturbances. In order to improve CPAP compliance, the first step is to educate the patients regarding the consequences of untreated OSA, how to properly use CPAP, and the benefits of CPAP use. Auto adjusting positive airway pressure (APAP) may marginally improve CPAP compliance. Bilevel positive airway pressure (BPAP) did not clearly show the improvement in compliance. Heated humidification when utilized routinely also did not improve compliance. However when it was utilized in the group with nasopharyngeal symptoms, significantly increase in compliance was observed

Obstructive Sleep Apnea and Cardiovascular Disease

Albert L. Rafanan, MD
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ABSTRACT

Obstructive sleep apnea (OSA) is increasingly recognized as an independent risk factor contributing to cardiovascular morbidity and mortality. There is strong evidence supporting the association between sleep apnea and hypertension, stroke, arrhythmias and coronary heart disease, as well as overall cardiovascular mortality. Several physiological mechanisms have been suggested to link OSA and vascular diseases including sympathetic activation, oxidative stress, vascular inflammation, hypercoagulability, metabolic dysregulation and endothelial dysfunction. OSA adds to or aggravates cardiovascular disease, and thus is increasingly recognized as a target for cardiovascular risk reduction.

Continuous Positive Airway Pressure (CPAP) is the most effective treatment of OSA in reversing hypoxemia and upper airway obstruction. The meta-analysis of Hu X et al (J Clin Hyperten 2015) on randomized trials have shown that CPAP allows significant reductions in systemic arterial pressure, and the effect is greater with higher adherence. Observational studies have shown significantly fewer cardiovascular events in patients adherent to CPAP than in those who are not adherent. However, a randomized trial by McEvoy et al (NEJM 2016) for the Sleep Apnea Cardiovascular Endpoints (SAVE) trial, showed that CPAP did not prevent cardiovascular events in patients with moderate-to-severe obstructive sleep apnea and established cardiovascular disease. These results need to be interpreted in application to our clinical practice.

For symptomatic patients with OSA, CPAP should be offered. And CPAP should still be given to patients with OSA and severe hypoxemia during sleep regardless of symptoms (as these patients were excluded from the SAVE trial). However, providing CPAP in asymptomatic patients with OSA and established cardiovascular disease cannot be recommended with the sole purpose of reducing future cardiovascular events.

Sudden Death in Sleep Among Asians

Maria Felicidad Soto, MD
Professor, Department of Neurology, College of Medicine, University of the East Ramon R. Magsaysay, Philippines

ABSTRACT

Southeast Asian countries have always been proud that there is unity in spite of the diversity of their cultures. Almost all of our peoples have the same outward appearance, and it is only when we speak that we can distinguish which country we belong to.

There is another thing that seems to bind us together – and this is the frequency of sudden unexplained nocturnal death syndrome or SUNDS among our peoples. In most of the ASEAN countries, this syndrome has recurred repeatedly and has been the subject of speculation, fear and dread for nearly the past 100 years. In these countries, the similarities stand out. The syndrome is seen almost exclusively in young healthy males, not known to have any illnesses, who are heard to struggle and moan in sleep, and inevitably die .

A lot has been learned about SUNDS in these regions, in terms of possible etiologies , mechanisms and possible treatment. I would like to elaborate on what we know of SUNDS among Southeast Asian people.

Solving the snore: From medical to surgical management

Michael Alexius Sarte, MD
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ABSTRACT

Snoring has always been and will always be a social problem. Unfortunately as it is the hallmark of obstructive sleep apnea (OSA), that makes it a medical problem as well given the many complications of OSA. Let us now review the myriad of solutions from the medical evidence to the surgical procedures being offered to address snoring and what we can do to the multitude that exhibit this most annoying manifestation.

Preoperative Evaluation of OSA Patients

Agnes Remulla, MD
Head, Sleep Laboratory, Asian Hospital and Medical Center
Head, Section of Oropharyngology, Department of Otorhinolaryngology-Head and Neck Surgery, University of the Philippines-Philippine General Hospital, Philippines

ABSTRACT

Patients with known or suspected obstructive sleep apnea (OSA) are known to have a higher risk for anesthesia and surgical procedures. A team approach between the surgeon, sleep physician and anesthesiologist should be performed in order to thoroughly map out strategies for pre-operative preparation, selection of anesthesia technique, post-operative airway management and anticipation/prevention of untoward events.

We discuss preoperative surgical practice and experiences among the attendees caring for patients with OSA.

Movement Disorders in Sleep: Restless and Sleepless

Rosalina Espiritu-Picar, MD
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ABSTRACT

Motor movements during sleep are a common source of confusion not just for sleep medicine practitioners but neurologists as well. This lecture will focus on restless legs syndrome and periodic limb movements which are one of the most common movement related sleep disorders and a common cause of poor sleep. Symptomatology, diagnosis and treatment of these conditions will be highlighted.

REM sleep-related parasomnias, of which REM behavior disorder is the most described, will likewise be discussed in terms of its symptomatology, diagnosis and management. Its linkage to other degenerative neurologic disorders will also be discussed.

Sleep and Pregnancy

Ruth Divinagracia, MD
Clinical Associate Professor, College of Medicine, University of the Philippines-Philippine General Hospital, Philippines

ABSTRACT

Pregnancy has been associated with increased sleep disturbances, even in women who never had sleep problems. In a 1998 Women and Sleep Poll (National Sleep Foundation), 78% of women report more disturbed sleep during pregnancy than at other times. The most common sleep problems during this period include:

1. Insomnia;
2. Restless Leg Syndrome (RLS); and,
3. Obstructive Sleep Apnea Syndrome (OSAS).

Insomnia is not surprising since anxiety and stress about labor, balancing work/motherhood as well as the hormonal changes associated with the pregnancy by themselves can cause it. The physical discomforts of pregnancy (need to go to bathroom, back and joint pains, leg cramps, contractions) have been cited by women in their 2nd and 3rd trimesters as main factors for sleep disturbance.

Restless Leg Syndrome (RLS) has been reported to occur in up to 30% of pregnant women and is characterized by the urge to move the legs accompanied by disagreeable sensations. This leads to disturbed sleep and daytime fatigue.

OSAS is daytime sleepiness associated with snoring, cessation of breathing and gasping and choking sensations. OSAS is believed to be of higher prevalence during pregnancy brought about by weight gain and the hormonal changes associated with pregnancy. The presence of OSAS has been associated with increased risk of gestational hypertension and gestational diabetes. There have been small studies that have shown increased risk for unplanned Caesarian deliveries as well as low birthweight infants.

Pregnancy is a time of great joy and anticipation for most women but medical providers must be cognizant of the fact that majority of expectant mothers have sleep problems that have to be addressed to mitigate the risks for both mother and child.

Chronobiology and Sleep Research and the Design of Shift Work Routines

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ABSTRACT

Contemporary society relies on 24/7 industries to meet their demand for products and services. Economic contributions of the workforce following a night or shifting work routine are significant. Safeguarding their productivity, well-being, and health is important, thus the effect of these work routines has become a concern not just of workers but also their employers.

Differences in health and sleep outcomes between individuals who do shift work are found to result from the interaction of characteristics of the shift or social routine (external time) and the individual's "body clock" (chronotype or one's internal time). In order to effectively characterize shift work outcomes, chronobiology research groups such as the German-Philippine collaboration PhilSHIFT (http://philshift.upm.edu.ph) adapt approaches where the documenting external time-internal time relationship is a core principle.

The above approach requires the development of chronotype tools for specific populations; a chronotype database yielding reference values for sleep and key health indicators; and the pursuit of a variety of chronobiology-oriented projects—field studies, laboratory experiments, as well as modelling. Recent chronobiology and sleep projects have demonstrated the potential of using products of such an approach to design work for productivity and sleep.

Weight Management Strategies in Obstructive Sleep Apnea

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ABSTRACT

Obesity and obstructive sleep apnea (OSA) are interrelated multidirectionally, involving complex mechanisms that lead to adverse cardiovascular and metabolic outcomes. It is estimated from reported studies that almost half of moderate to severe cases of OSA are attributed to excess weight. Weight reduction is therefore clearly needed in a significant number of OSA cases. The projected amount of weight loss to be of benefit with regards to OSA is at least 10% of baseline weight. The amount of weight loss has been evaluated in relation to improvement in OSA indices as well as quality of life.

Weight management in general is challenging. Many physicians are not well-trained in guiding and treating obese patients. Health care facilities are also often not well-equipped to manage obese patients. The treatment options for obesity are also not uniformly accessible. When the complications of obesity, including OSA and cardiometabolic problems, are already present, weight management even becomes more difficult. Practical steps in weight management through lifestyle intervention (diet, physical activity), behavioral modification, drug therapy and bariatric surgery will be highlighted vis-à-vis the limitations and challenges in clinical practice specifically as they relate to obese patients already with OSA and with cardiovascular and metabolic complications.

Cognitive Behavioral Therapy for Insomnia (CBT-I)

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ABSTRACT

Cognitive Behavioral Therapy for Insomnia (CBT-I) aims to solve problems concerning dysfunctional behaviors, cognitions, and emotions related to insomnia through goal-oriented and systematic procedures. There is overwhelming evidence that CBT-I is as effective as sedative hypnotics, and is more effective in the long-term treatment of insomnia. Unlike sleeping pills, CBT-I helps the client overcome the underlying causes of his/her sleep problems. In a study by the American Academy of Sleep Medicine, CBT-I was effective in treating up to 80% of people.

An effective initial screening process is needed in order to determine if the patient is a good candidate for CBT-I, or if an alternative treatment would be more effective. Once the patient is identified as a candidate for CBT-I, weekly one-hour therapy sessions, for a maximum of 8 sessions, would ensue. CBT-I consists of psychoeducation, behavior therapy (sleep hygiene, stimulus control, sleep restriction), cognitive therapy/cognitive restructuring, mindfulness-based therapy (relaxation skills, distress tolerance skills, emotion regulation skills) as well as general psychotherapy. Re-evaluation and relapse prevention is provided at the end of the therapy.

Personalizing Treatments for Shift Work Disorder

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ABSTRACT

Shift work disorder (SWD) results from a misalignment of circadian rhythm. Its main manifestations are insomnia during sleeping periods and excessive sleepiness during work periods. Treatment for SWD are directed towards maintaining wakefulness and alertness during work period and promoting sleep after work shift period.

Exposing the worker to bright light during work suppresses endogenous melatonin production thereby decreasing the urge to sleep. Taking a nap shortly before work and during work decreases fatigue and increases alertness. Caffeine, modafinil and armodafinil maintain wakefulness when taken before work shift.

The cornerstone to promoting sleep is having good sleep hygiene practices. These include a cool, dark and quiet sleeping bedroom. Wearing sunglasses on the way home from work blocks light and promotes realignment. Melatonin, melatonin agonist and hypnotics are pharmacologic agents that can be tried to promote sleep.

There is no single therapy for SWD. Each individual will need to try various combinations of treatment strategies. But if nothing works, shifting to a daytime job is the best option.

Poster presentation: SLEEP MEDICINE

Clinical Characteristics of Obstructive Sleep Apnea Syndrome in Indonesian Adults
Telly Kamelia, SpPD

Sleep, slipping away…
Leong Lai Kuan, MBBS

Prevalence of Restless Legs Syndrome and Sleep Related Disorders in Filipino Hemodialysis Patients
Kristine Mae Vega-Alava, MD; Rodolfo Dizon, Jr, MD

Association of Excessive Daytime Somnolence and Metabolic Profile in Newly Diagnosed Hypertensive OPD Patients seen in Ospital ng Makati
Marie Menette I. Agapito, MD; Rodolfo Dizon Jr, MD

Anthropometric Measurements as a Screening for Obstructive Sleep Apnea among Employees of Philippine Heart Center
Mander L. Cambonga, MD; Aileen G. Banzon, MD; Ma. Encarnita B. Limpin, MD

Association of Sleep Quality with Glucose Control in Filipino Adults with Type 2 Diabetes Mellitus
Abigail C. Zaraspe, MD; Virginia S. Delos Reyes, MD; Cecilia A. Jimeno, MD

Clinical Characteristics of Obstructive Sleep Apnea Syndrome in Indonesian Adults

Telly Kamelia, SpPD

ABSTRACT

BACKGROUND: Obstructive sleep apnea (OSA) is a recurrent episodes of upper airway collapse either partial or complete during sleep. This causes the gas exchange and sleep disorders. Prevalence and characteristics of obstructive sleep apnea syndrome in Indonesia remain unclear. This study want to show the prevalence and characteristics of obstructive sleep apnea patients based on polysomnography report in Jakarta, Indonesia.

METHODS: The study involved patients with suspected OSA investigated with polysomnography (PSG) type III including continuous recordings of nasal airflow by thermistor, oximetry, body position detection, and vibration sound detection at some sleep department in Jakarta, Indonesia. The sleep report were used to assess characteristics of OSA based on Apnea-Hypopnea Index (AHI), AHI in supine and non-supine position, average oxygen saturation, Oxygen Desaturation Index (ODI), snoring time and number of snoring episodes. Results were analyzed using Pearson test, Spearman test and Kolmogorov-Smirnov test.

RESULTS: Fifty-four subjects were included; 47 subjects were diagnose with OSA with AHI score ≥5. Most OSA subjects aged 68.1% are adults (41-65 years), 74.5% were men and 55% subjects are obese (BMI ≥30 kg/m^2). The PSG result showed that 31.5% had mild OSA; moderate OSA was 22.2%, and severe OSA was 33.3%. Based on sleep position, 71.8% of OSA are in supine position, severe ODI (33.3%), median (minimum) average SaO_2 was 94.5 (70.6), mean sleep duration was 434.3 ± 67.88 minutes with a mean snoring time of 26.18% ± 16.03% of total sleep duration. There were significant differences between OSA severity and between BMI classified (p=0.006). BMI significantly correlated with AHI (p=0.001; r=0.444), average oxygen saturation ($p \leq 0.001$; r=-0.470), ODI (p=0.002; r=0.405), and number of snoring episodes (p=0.044; r=0.276).

CONCLUSION: OSA is highly prevalent in adults (41-65 years of age), and increased with BMI. There are correlations between BMI with AHI, average oxygen saturation, ODI, and number of snoring episode.

Sleep, slipping away…

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ABSTRACT

Introduction: Obstructive Sleep Apnea (OSA) and Obesity Hypoventilation Syndrome (OHS) often co-exist, yet this overlap syndrome is often unrecognized, leading to significant morbidity and mortality and delay in treatment. We report a case of a patient with an overlap syndrome who nearly slipped into death in her sleep.

Case: A 63-year old obese lady (body mass index of 47.1 kg/m²) with diabetes mellitus and hypertension presented with reduced effort tolerance for the past 1 year. At home, she dozed off easily when watching television channel. One week prior to her admission to the hospital, she was weaker than usual and was unable to do house chores. She slept more often than usual. One day prior to admission, her son found it hard to wake her up for dinner. On awakening, she took some food and slept again.

Thereafter, she was immediately brought to the hospital for unconsciousness. In the emergency department, her Glasgow Coma Scale was 10/15. Her oxygen saturation was 80-90% on high flow mask oxygen. She had severe type 2 respiratory failure and was put on bilevel positive airway pressure (BiPAP) ventilation. She made a remarkable recovery on BiPAP ventilation.

Investigations: Her arterial blood gas showed type 2 respiratory failure on high flow mask with a pH of 7.136, PCO2 of 106 mmHg, and HCO3 of 25.5 mmol/L. Chest x-ray showed no consolidation or cardiomegaly. Her echocardiography showed a good left ventricular ejection fraction of 81% with trace tricuspid regurgitation with a pulmonary artery systolic pressure of 29 mmHg. Her polysomnography showed an apnea-hypopnea index of 78.6 and she had mainly hypopneic during the diagnostic part of the polysomnography, with frequent desaturations, with the lowest saturation of 55%. The continuous positive airway pressure (CPAP) therapy up to 13 cmH2O during REM sleep corrected almost all her respiratory events with a lowest saturation of 90%.

Conclusion: It is important to recognize and differentiate obstructive sleep apnea patients who are eucapnic and those with OSA and OHS who are hypercapnic. Treatment options are different between the two conditions. CPAP is used in OSA while BiPAP is used in overlap syndrome.

Prevalence of Restless Legs Syndrome and Sleep-related Disorders in Filipino Hemodialysis Patients

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ABSTRACT

Objective: This study aims to investigate the prevalence of Restless Legs Syndrome (RLS) and its sleep related disorders in Filipino hemodialysis patients.

Methodology: We enrolled 71 eligible patients who answered questionnaires during a face-to-face interview. The questionnaires used were International Restless Legs Syndrome Study Group (IRLSSG) criteria for the diagnosis of RLS, Insomnia Severity Index (ISI), Epworth Sleepiness Scale (ESS) and Pittsburgh Sleep Quality Index (PSQI). Other potential risk factors for RLS including biochemical tests were also evaluated.

Results: Our study results showed that out of 71 hemodialysis patients, 34 (47.89%) presented with RLS. Mean age of the patients was 56.97 years. It occurs most frequently in males (62%) and those who are overweight (p=0.00), with lower glomerular filtration rate (p=0.011), and higher serum potassium and phosphorus levels (p=0.00 and p=0.01 respectively). Hemodialysis patients with RLS also have higher scores in ISI (p=0.00012) and ESS (p=0.0031) and PSQI (p=0.00026) than those without RLS.

Conclusion: Our study suggests that RLS and its sleep related disorders are common among hemodialysis patients and they should be properly recognized and treated to improve their quality of life.

Association of Excessive Daytime Somnolence and Metabolic Profile in Newly Diagnosed Hypertensive OPD Patients seen in Ospital ng Makati

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ABSTRACT

Objective: To know the association of excessive daytime somnolence (EDS) and metabolic profile in newly diagnosed hypertensive OPD patients

Methods: This was a prospective cross-sectional study that included 80 newly diagnosed hypertensive patients seen at Ospital ng Makati OPD, aged over 19 years. A socio-demographic questionnaire, and a validated Filipino version of Epworth Sleepiness Scale were used as data collection tools.

Results: Patients with EDS had higher average fasting blood sugar (FBS) (6.05 mmol/L vs 5.1 mmol/L), HbA1c (6.65% vs 6%), low-density lipoprotein (LDL) (3.35 mmol/L vs 2.1 mmol/L), triglycerides (TG) (1.87 mmol/L vs 1.56 mmol/L), and total cholesterol (5.9 mmol/L vs 5.02 mmol/L). Patients with LDL levels >3 mmol/L or TG >1.8 mmol/L were 11 times as likely to have EDS vs those with normal levels.

Conclusion: Patients with EDS had higher average FBS, HbA1c, LDL and cholesterol and can therefore be an independent CV risk factor. Newly diagnosed hypertensives with LDL levels >3 mmol/L or TG >1.8 mmol/L were approximately 11 times as likely to have EDS vs normal.

Anthropometric Measurements as a Screening for Obstructive Sleep Apnea among Employees of Philippine Heart Center

Mander L. Cambonga, MD; Aileen G. Banzon, MD; Ma. Encarnita B. Limpin, MD

ABSTRACT

Introduction: This study aims to determine the association of anthropometric measurements with the risk for obstructive sleep apnea (OSA) through the use of Berlin Questionnaire among employees of Philippine Heart Center.

Methodology: This is a cross sectional study conducted at the Philippine Heart Center, with employees as the participants. Anthropometric measurements of 260 subjects were obtained and assessed for risk of OSA through Berlin questionnaire.

Result: Subjects who were high risk for OSA based on the Berlin Questionnaire were significantly more likely than those at low risk to have an increased weight, and body mass index (BMI); larger neck circumference (NC), waist circumference (WC), hip circumference (HC) and thigh circumference. Increased BMI, WC, and waist-to-hip ratio (WHR) were statistically significant risk factors for OSA.

Conclusion: Increased BMI, WC and WHR, if associated with snoring, daytime somnolence, fatigue and hypertension, makes a person high risk for OSA.

Association Between Sleep Quality and Glucose Control in Filipino Adults with Type 2 Diabetes Mellitus

Abigail C. Zaraspe, MD; Virginia S. Delos Reyes, MD; Cecilia A. Jimeno, MD

ABSTRACT

Objective: To determine the association between sleep quality and glucose control among type 2 diabetes mellitus (T2DM) Filipino adults.

Methods: This was a cross-sectional analytic study involving 241 T2DM Filipinos seen consecutively at various outpatient clinics for 8 months. Sleep quality was measured using the Pittsburgh Sleep Quality Index Questionnaire. HbA1c within one month was used to assess glucose control. Sleep disordered breathing (SDB) and excessive daytime sleepiness (EDS) were screened using the Berlin Questionnaire (BQ) and Epworth Sleepiness Scare (ESS) respectively.

Result: Poor sleep quality was noted in 55% of the population. Patients with poor glucose control were more likely to have poor sleep quality (OR=5.5012; 95%CI 3.0881, 9.7997; p<0.001). HbA1c, asthma/chronic obstructive pulmonary disease (COPD), and sleeping alone are predictors of poor sleep quality based on PSQI scoring. Among the study population, 33% are high risk for SDB using the BQ and 26% have EDS using ESS.

Conclusion: Poor sleep quality is directly correlated with poor glucose control. Factors that worsen sleep quality among T2DM are elevated HbA1c, asthma/COPD and sleeping alone.

GENERAL RESEARCH PAPER SUBMISSIONS FROM PULMONARY MEDICINE TRAINING INSTITUTIONS

Utility of DECAF score in Hospitalized Patients with COPD in Acute Exacerbation

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ABSTRACT

Background: Acute exacerbations of chronic obstructive pulmonary disease (AECOPD) requiring hospitalization, in-hospital mortality was 7.7%, as reported in the 2008 UK National COPD Audit.1 A robust clinical prediction tool, developed from a large prospective cohort of unselected admissions, could assist decisions regarding: location of care; early escalation of care; appropriateness for end-of-life care; and suitability for early supported hospital discharge and therefore could help to reduce morbidity and mortality and direct the most efficient use of resources.

Materials and Methods: This is a retrospective study that evaluated the predictive performance of DECAF score in terms of in hospital stay and in hospital mortality of suspected patients admitted as AECOPD at St. Luke's Medical Center Quezon City, from March 2014 – March 2015. A comprehensive chart review of included patients will be recovered from the Medical Records Section of St. Luke's Medical Center. Descriptive statistics was used to summarize the clinical characteristics of the patients. Frequency and proportion was used for nominal variables, mean and standard deviation were used as indicators of continuous variables.

Results: From March 2014 until March 2015 we had 408 patients who were admitted at St. Luke's Medical Center and diagnosed with COPD or COPD at risk, but only 67 patients were admitted due acute exacerbation of COPD, and only 47(11.5%) patients who met the inclusion criteria. As shown in Table 1, the baseline characteristics of 47 patients were, 38.2% were aged 73-82 years old, majority were males [78.7%], 70.2% had normal BMI. Moreover, as noted in Table 2, 85.2% had stayed in the hospital <15 days while 10.6% had expired, 87.3% were discharged. The assessment of 47 patients revealed that 65.9% had high risk score, 27.7% had intermediate, and only 6.4% had low risk. Using the intermediate risk score, in predicting overall accuracy it yielded 100% sensitivity, 20% specificity, likelihood ration of 1.25, and negative predictive value of 100%. Meanwhile, since there is only 1 case of death with intermediate score and it occurred during in-hospital, the 30-day mortality cannot be appropriately estimated. On the other hand, using the high risk score, it yielded higher sensitivity of 100% in predicting in-hospital and 30-day mortality yet it generated very low specificity of 10%. It also showed that the high risk score showed higher negative predictive values at in-hospital (100%) and 30-days mortality (100%).

Conclusion: The DECAF Score is a simple yet effective predictor of mortality in patients hospitalized with an exacerbation of COPD and has the potential to help clinicians more accurately predict prognosis, and triage place and level of care to improve outcome in this common condition. It is relatively a new prediction tool, and more prospective studies are needed to establish its clinical utility.

Phenotyping of Adult Patients with Bronchial Asthma at the Lung Center of the Philippines OPD Asthma Clinic: A 6-month Pilot Study

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ABSTRACT

Introduction: Bronchial asthma is a common heterogeneous disease with a complex pathophysiology that carries a significant mortality rate and high morbidity. Current therapies based on inhaled corticosteroids and long-acting beta-agonists remain effective; however, some patients do not respond to these treatments even at high doses of corticosteroids. Our study aimed to investigate the cellular phenotypes among asthma patients seen at the Out- patient Department (OPD) of the Lung Center of the Philippines, which could account for differences in treatment response.

Methods: This was a cross-sectional study on 80 Filipino asthmatic patients. Peripheral blood and sputum samples were collected, and demographic and clinical data such as gender, age, smoking history, body mass index, co-morbidities, medications used and FEV1 were gathered. The patients' cellular phenotypes were identified, with eosinophilic phenotype defined as >300 cells/mm3 per blood sample or > or equal to 3% in sputum examination.

Results: The eosinophilic phenotype was predominant (57.5%) using peripheral blood among asthmatic patients at the OPD. The sputum examination tested on a subset of these patients showed that the paucigranulocytic and eosinophilic phenotypes were equally predominant at 46.7% each. No demographic nor clinical characteristic was associated with the eosinophilic phenotype. Compliance ($p < 0.01$) and the dose of steroid use ($p = 0.09$) were statistically different between controlled and uncontrolled asthmatic patients. There was no statistically significant association between the level of asthma control and eosinophilic vs non-eosinophilc phenotypes.

CONCLUSION: Eosinophilic phenotype is the most predominant phenotype among asthmatic patients at the Lung Center of the Philippines OPD Asthma Clinic using peripheral blood. Eosinophilic and paucigranulocytic phenotypes are the most common phenotypes using sputum analysis. There was no association between phenotypes and level of asthma control.

Association of Serum Uric Acid Levels and Outcomes of Patients with Chronic Obstructive Pulmonary Disease: A Prospective Cohort Study

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ABSTRACT

BACKGROUND: Chronic obstructive pulmonary disease (COPD) is one of the leading causes of morbidity and mortality with increasing prevalence worldwide. Changes in oxygen tension such as hypoxia, has been found to modulate the release of purine metabolites such as uric acid. Serum uric acid increases significantly during hypoxia. Elevated uric acid levels have been associated with the presence of systemic inflammation and increased cardiovascular risk. Also, it could serve as a non-invasive indicator for COPD severity.

METHODOLOGY: This is a prospective cohort analytic study among COPD in exacerbation patients at Philippine Heart Center. Serum uric acid level determination was done as part of the routine blood tests obtained during admission. Patients were followed-up until discharge and through a telephone conversation 30 days after discharge to determine mortality. Serum uric acid level was then analysed for correlation with mortality, length of hospitalization, intensive care unit (ICU) stay and noninvasive ventilation (NIV).

RESULTS: A total of 159 patients were included in the study (57% male). Their mean age was 69 years old. Majority (91 %) were smoker, with a mean average smoking history of 25.57 □ 9.03 pack-year. One hundred forty-four patients (91%) had no previous pulmonary tuberculosis treatment. Majority were under GOLD Classification C (55%). Patients with high serum uric acid levels had a mean average hospital stay of 16.38 □ 6.58 days (vs 14.48 □ 7.24 days in those with low uric acid; p=0.9535). They had a higher rate of 30-day mortality (10% vs 0%; p=0.005). Their ICU admission rate was 19.0% (vs 11.59%; p=0.799). Moreover, patients with high serum uric acid levels were more likely to required NIV (p<0.001).

CONCLUSION: Elevated serum uric acid levels on admission among patients with COPD in exacerbation are associated with increased 30-day mortality and increased risk of NIV use.

Blood Eosinophilia as Predictor for Outcomes in Chronic Obstructive Pulmonary Disease Exacerbations: A Systematic Review And Meta-Analysis

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ABSTRACT

INTRODUCTION: The eosinophilic phenotype of chronic obstructive pulmonary disease (COPD) has been demonstrated to respond better to corticosteroids and associated with better outcomes. This review aims to elucidate the correlation of blood eosinophilia and outcomes patients with COPD exacerbations.

METHODS: Inclusion criteria include cohorts, case-control or trials that looked into blood eosinophilia and outcomes in exacerbations. The primary study outcome was length of hospitalization; other outcomes include readmission and mortality rate within 1 year, in-patient mortality, and need for mechanical ventilation.

RESULTS: Six studies were included in the review. Patients with blood eosinophilia had significantly shorter hospital stay compared to non-eosinophilic patients (mean difference 0.68 days [95% CI 1.09,0.27]). Eosinophilic patients had significantly less frequent readmissions (OR 0.69 [95% CI 0.55,0.87]) but there was no statistically significant difference in the 1-year mortality rate (OR 0.88 [95% CI 0.73, .06]). Analysis showed a trend toward lower in-patient mortality among eosinophilic patients (OR 0.53 [95% CI 0.27,1.05]). Furthermore, COPD patients with eosinophilia had significantly less need for mechanical ventilation during an exacerbation (OR 0.56 [95% CI 0.35,0.89]).

CONCLUSIONS: Our meta-analysis suggested that COPD patients with blood eosinophilia had significantly shorter hospital stay, less frequent readmissions, and are less likely to require mechanical ventilation compared to the non-eosinophilic phenotype but results are significantly heterogeneous to draw concrete conclusions.

Efficacy and Safety of Long-Acting Beta-Agonists (LABA) Plus Long-Acting Muscarinic Antagonists versus LABA Plus Inhaled Corticosteroids in Chronic Obstructive Pulmonary Disease: A Meta-Analysis

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ABSTRACT

Background and Objectives: Current Global Initiative for Chronic Obstructive Lung Disease (GOLD) guidelines recommend the use of long-acting beta agonists (LABA) plus inhaled corticosteroids (ICS), or long-acting muscarinic antagonists (LAMA) for the treatment of patients with moderate to severe COPD. The novel combination of LABA/LAMA has been approved for COPD patients with severe symptoms; however, its role in reducing exacerbations is less clear.

Methods: We performed a meta-analysis of randomized controlled trials that compared efficacy and safety of LABA+LAMA versus LABA+ICS in moderate to severe COPD patients. The primary outcome is the rate of yearly COPD exacerbations. Other outcome measures include improvement in trough FEV1, St. George Respiratory Questionnaire for COPD (SGRQ-C) scores, transition dyspnea index (TDI) scores, rescue medication use and pneumonia risk. Analysis was performed in accordance with the Quality of Reporting of Meta-Analyses (QUORUM) guidelines.

Results: Six randomized controlled trials, which were all assessed to be of good quality and low risk of bias. It included 3,370 patients altogether. Over-all exacerbation rates were 21% lower in those treated with LABA/LAMA versus LABA/ICS (RR 0.79, [95% CI 0.66-0.94]). This effect is more pronounced in patients who had at least 1 exacerbation per year, showing 25% lower exacerbation rates (RR 0.75 [0.60-0.95]) compared to those with no history of prior exacerbations (RR 0.85 [0.61-1.14]). Patients given indacaterol/glycopyrronium also experienced lower exacerbation rates versus LABA+ICS (RR 0.71 [0.57-0.59]), unlike those on umeclidinium/vilanterol (RR 1.16 [0.68-2.00]). There were statistically significant improvements in FEV1 (mean difference 0.070 L [95% CI 0.07-0.07 L]), SGRQ-C (mean difference -0.92 points [95% CI -0.95,-0.90]), and TDI scores (mean difference 0.24 [95% CI 0.23-0.25]); as well as a decrease in use of rescue medications (mean difference -0.20 puffs/day [95% CI -0.21, -0.20]) in patients given LABA/LAMA versus those on LABA/ICS. Pneumonia risk was significantly lower in patients given LABA/LAMA vs LABA/ICS (RR 0.59 [95% CI 0.43-0.80]).

Conclusions: The combination of LABA+LAMA is safer and more effective in reducing exacerbations and improving clinical outcomes compared with LABA+ICS in patients with moderate to severe COPD.

Prevalence of Asthma-COPD Overlap Syndrome (ACOS) Among Patients Presenting with Asthma of COPD in the OPD of the UP-PGH Section of Pulmonary Medicine: A Pilot Study

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ABSTRACT

Background: Asthma and chronic obstructive pulmonary disease (COPD) has significant overlap and is known as Asthma-COPD Overlap Syndrome (ACOS). Its exact prevalence is still unknown. ACOS patients have higher risk of exacerbation, and should thus be identified.

Methodology: This was a single-center cross-sectional study. Asthma and COPD patients at the outpatient department were identified and included until the computed sample size of 54 COPD and 53 asthma patients was reached. Patients were then evaluated for ACOS by history and spirometry. Clinical characteristics related to these conditions were also evaluated.

Results: The overall prevalence of ACOS was 22.45%. In asthma patients, 26.53% had ACOS while the rate was 18.37% for COPD. Asthma patients had a mean age of 56.42 + 11.74 years; COPD patients 66.63 + 9.53 years; and ACOS 65.32 + 8.58 years. Majority with asthma were females (69.44%), while majority with COPD (92.5%) and ACOS (63.64%) were males. Of the asthma patients, 5% had PTB. The rates were 40.91% for ACOS and 47.5% for COPD patients had PTB. Only 13.9% with asthma smoked, while 97.5% of COPD and 62.2% of ACOS patients smoked. The mean smoking history was 4.72 + 14.67 pack-years for asthma, 50.6 + 30.28 pack-years for COPD, and 32.23 + 37.65 pack-years in ACOS.

Comparison of Glycopyrronium plus Indacaterol compared to Inhaled Corticosteroids plus Long-Acting Beta-Agonists in Patients with Chronic Obstructive Pulmonary Disease: A Meta-Analysis

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ABSTRACT

Overview: Chronic obstructive pulmonary disease (COPD) is a chronic lung disease that is of great clinical importance because of its impact on people's health. The GOLD guidelines have set the bar for the clinical management of COPD. The guidelines have labeled inhaled corticosteroids (ICS) plus long-acting beta-agonists (LABA) as the treatment of choice for moderate to severe COPD. However, LABA plus long-acting muscarinic antagonists (LAMA) combinations are considered an alternative therapy.

Objectives: The main objective of this study is to compare a LABA/LAMA combination (i.e., indacaterol/glycopyrronium) to ICS/LABA in terms of risk of exacerbation. Secondary outcomes include risk of adverse events.

Methods: A thorough and extensive search was done using MEDLINE, clinicaltrials.gov and Cochrane Library. Included studies should have been randomized controlled trials (RCT) that included patients in moderate to severe COPD. Studies should have a minimum study period of 24 weeks. Participants should have been divided into a LABA/LAMA group (indacaterol/glycopyrronium) and ICS + LABA. Pooled analysis and statistics was done using the Review Manager version 5.3.

Results: Three trials were included in this meta-analysis in which 4,625 participants were included. The risk of exacerbations was less in the LABA/LAMA group (HR 0.74; 95% CI 0.61, 0.90).

Conclusion: LABA/LAMA combinations can be an effective and safe way to manage COPD patients. These treatments have potential to be a first-line treatment option.

Knowledge and Use of Spirometry for the Diagnosis of Chronic Obstructive Pulmonary Disease Among Senior Medical Residents in Metro Manila

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ABSTRACT

Background: Spirometry is an essential tool in the diagnosis of chronic obstructive pulmonary disease (COPD). Therefore, in view of the clinical application of spirometry, this study aims to assess the knowledge and use of spirometry among senior medical residents in different training institutions.

Methods: This was a questionnaire-based study conducted across 38 training hospitals in Metro Manila.

Results: A total of 117 senior medical residents responded to the survey. Although majority of the senior medical residents knew the importance of history and symptoms (>95%) and spirometry (90%) to differentiate chronic obstructive pulmonary disease (COPD) from asthma, almost half (48%) do not routinely use spirometry for the detection of COPD. The most common reasons for not performing spirometry were additional patient expenses (60%), the test seemed unnecessary (34%), and patient preference not to perform the test (29%). Only about 20% of senior medical residents are very comfortable in interpreting spirometry results in contrast to more than 85% of them are very comfortable in interpreting an electrocardiogram. Stated aims of COPD treatment included reduction of exacerbations (97%), improvement of patient quality of life (95%), and the reduction of hospitalization (90%). In respondents from institutions with pulmonary fellowship training programs, 38.33% stated that FEV1 is the bases of COPD diagnosis, versus 24.56% in institutions without similar training programs (p=0.109).

Conclusion: The results showed that senior medical residents in training generally were lacking adequate knowledge and use of spirometry in the detection of COPD. Hence, educational efforts such as workshops and continuing medical education on spirometry are recommended as part of their training programs.

Correlation of Fractional Exhaled Nitric Oxide Level with Severity of Chronic Obstructive Pulmonary Disease

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ABSTRACT

Background: Fractional exhaled nitric oxide (FeNO) is being used as a marker of inflammation in the disease activity of different lung diseases. Chronic obstructive pulmonary disease (COPD) is a progressive airflow obstruction with neutrophilic inflammation. This study aimed to measure FeNO levels in documented COPD patients to assess whether the FeNO level was related with the severity of COPD.

Method: We measured the FeNO level of patients diagnosed with COPD thru spirometry and correlated the FeNO level with the severity of the COPD as dictated by the lung function.

Results: We enrolled 35 COPD patients and categorized them based on the Combined GOLD model of symptom/risk of evaluation of COPD (2011). Exhaled nitric oxide levels were significantly higher in those in COPD GOLD D (38.5 + 7.7 parts per billion) as compared to those in COPD GOLD A (23.4 + 1.14 parts per billion). However, the correlation between FeNO and lung function assessment by % predicted FEV1 was weak and not statistically significant. (r= 0.21, p= 0.231).

Conclusion: FeNO shows potential as a marker for monitoring disease severity in COPD.

Validity of the LENT Prognostic Score for Predicting Survival in Malignant Pleural Effusion

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ABSTRACT

Introduction and objectives: Malignant pleural effusion (MPE) is commonly a characteristic of advanced malignancy, with reported median survival of 3 to 6 months among patients. It is associated with debilitating symptoms contributing to a poor quality of life. Although options to palliate symptoms are varied, treatment modalities themselves may cause morbidity and necessitate an in-hospital stay – options that may not be acceptable to a patient at the end-stage of life. Thus, identification of clinical factors that can predict survival among patients with MPE may guide the palliative management of this group of patients. The LENT score is a risk stratification system to predict survival in patients with MPE. It is calculated using readily available clinical data including pleural fluid LDH, ECOG Performance score, neutrophil-to-lymphocyte ratio and tumor type. This study aimed to determine the validity of the LENT Score as a predictor of survival in MPE.

Methods: The medical records of admitted adult patients with malignant pleural effusion were retrospectively analyzed. Their baseline demographics and LENT parameters were collected and their LENT scores calculated and reported. Survival based on retrospective analysis was then correlated with the LENT scores.

Results: One hundred patients were included in the study. Calculation of their LENT scores showed significant association with survival. Patients with high, moderate, and low-risk LENT scores had a mean survival time of 1.76 months, 10 months, and 20 months, respectively. In particular, the LENT score was more accurate at predicting patients with shorter projected survival.

Conclusion: The LENT score is a valid prognostic scoring system that can predict survival in patients with MPE.

LENT Prognostic Score in Malignant Pleural Effusion at Veterans Memorial Medical Center

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ABSTRACT

BACKGROUND: Malignant pleural effusion represents an advanced malignant state and reduced life expectancy following diagnosis. Invasive therapeutic options are performed to provide symptomatic temporary relief but no intervention to date has been shown to improve survival. With this, treatment strategies must be discriminative and prudent to reduce if not to avoid complications that can cause significant morbidity adding more discomfort and inconvenience to the patient. Therefore, the study aims to assess the use of LENT prognostic scoring system in predicting survival time in patients with malignant pleural effusion to aid physicians in prognostication and help them in making sound and optimal clinical management decisions.

METHODS: This is a retrospective-prospective observational cohort study of admitted adult patients diagnosed with malignant pleural effusion who underwent diagnostic thoracentesis with or without pleural biopsy. Components of the LENT prognostic scoring system were obtained and risk stratification was done following the scoring system. All included patients were followed up for 6 months and survival outcome was recorded. Descriptive analysis was done using frequency distribution for baseline characteristics, mean and median with 95% confidence interval (CI) for survival time with comparison of the survival curves using the Kaplan Meier survival analysis and Spearman r coefficient to correlate survival time and risk category.

RESULTS: Of the 98 patients included in the study, low risk LENT score occurred in 2.0% (2/98), moderate risk LENT score in 54.0% (53/98) and high risk LENT score in 44.0% (43/98). The resulting log rank test (Chi-squared) p value of 0.0001 indicates that risk level significantly affects the survival time. Those who had low risk LENT score had longer median survival time of 180 days; 100% of them survived up to 6 months while those who had moderate risk LENT score had a median survival time of 128 days; 88.7%, 64.0% and 41.5% of them survived at 1, 3 and 6 months respectively and those who had high risk LENT score had a shorter median survival time of only 37 days; 58.0% survived at 1 month, 6.9% survived at 3 months and only 2.3% of them survived at 6 months. The resulting Spearman r coefficient of -0.6327 signified that survival time and risk category is inversely related to each other which indicates that as the risk level goes up, their survival time goes down and becomes shorter. Among the LENT variables, ECOG PS (p=0.0001), serum NLR (p=0.0066) and tumor type (p=0.0057) significantly affects survival time while pleural fluid LDH (p=0.8016) showed no significant effect on survival time.

CONCLUSION: LENT prognostic scoring system can predict survival time among patients with malignant pleural effusion of diverse tumor type, therefore, it can be used in the prognostication of patients with malignant pleural effusion. However, further research with longer observation period is recommended to accurately assess the survival time of those with low risk LENT score.

Clinical Profiles and Survival of Female Patients Diagnosed with Primary Lung Cancer Registered at the Lung Cancer Registry of St. Luke's Medical Center

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ABSTRACT

Introduction: Lung cancer is one of the most common malignancies in the world, and still the leading cause of cancer death in both men and women.

Methods: This was a ddescriptive, cross-sectional study that determined the demographic pattern, clinico-radiological presentation, smoking status, histologic type, performance status and stage at presentation of lung cancer among female patients registered at St Luke's Medical Center Lung cancer registry. Records of female patients registered between July 1, 2012–December 31, 2014 were reviewed.

Results: A total of 52 female patients were registered. The mean age of patients was 63.2 ± 9.8 years. Forty-seven of the 52 never smoked. A family history of cancer was found in 27%. ECOG performance status was 2 for 42% and 1 for 37% of women. Majority were at stage 4 cancer at the time of diagnosis (83%). Adenocarcinoma was the most prevalent tumor histologic type 73%. Patients with EGFR positive adenocarcinoma outnumbered those with an EGFR negative subtype. Cough was most common in adenocarcinoma (84%). Radiologically, mass was the sole picture in Undifferentiated Lung Cancer and adenosquamous lung CA, and was most common in the adenocarcinoma (84%) and SCC (56%) types. A survival rate estimate of 50.27% (95% CI: 35.15%–63.62%) was found at 1.95 years after the time of diagnosis.

Conclusion:
Adenocarcinoma of the lung is an increasingly more prevalent lung malignancy and our experience shows that it predominantly affects women who have never smoked and are symptomatic on presentation with advanced disease.

The Association between Implementation of Bundles of Care and Possible Ventilator Associated Pneumonia Among Mechanically Ventilated Patients in the Intensive Care Unit: A Quasi-Experimental Study

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ABSTRACT

Objectives and Methods: Ventilator associated pneumonia (VAP) is a serious medical condition causing significant morbidity and mortality among mechanically ventilated patients. The "VAP Bundles of Care" is a process improvement program designed to lessen the incidence of VAP. This study primarily aims to determine the impact of implementation of "VAP Bundles of Care" program for reducing episodes of possible VAP (pVAP) in The Medical City Adult Intensive Care Unit (TMC-ICU) by comparing pVAP rates pre and post intervention period using a Quasi-experimental study design. This study also aims to determine the association between the implementation of "Bundles of Care" with secondary outcomes of ventilator days, length of ICU stay, length of hospital stay and mortality among patients intubated adult patients at the TMC-ICU from January 2008-December 2015.

Results: A total of 235 patients were included in the study; 124 patients did not receive VAP Bundles of Care while 111 did. Majority of patients who developed pVAP occurred prior to implementation of the "Bundles of Care" (37 out of 47). Those with VAP bundle have lower odds of acquiring pVAP. The length of hospital stay ranges from 3-72 days prior to implementation of the Bundles of Care and 2-91 days after its implementation while length of ICU stay ranges from 2-60 days prior to implementation of the Bundles of Care and 1-72 days after its implementation. Finally, the number of ventilator days ranges from 1-52 days prior to implementation of the Bundles of Care and 1-63 days after its implementation. There is no significant difference between secondary outcomes between the two groups. Moreover, mortality rates has increased from 11% (n=14) to 19% (n=21) after implementation of the Bundles of Care program. Mortality in these patients may have been influenced by other baseline characteristics and other complications that may have developed during the patient's admission; hence, continued implementation and improvement of delivery of the VAP bundles of care is still recommended. To our knowledge this is the first study in the institution assessing the impact of the VAP Bundles of Care in preventing VAP. This study may be used to spring board future studies regarding VAP Bundles of Care in preventing pVAP.

Neurocognitive Outcome of Patients with Delirium in the Intensive Care Units at a Tertiary Government Hospital

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ABSTRACT

INTRODUCTION: Delirium among patients admitted in the intensive care units is associated with impairment of cognitive function. This study aims to determine the presence of cognitive impairment among patients who developed ICU delirium, as well as to identify the cognitive domains compromised and preserved in this group of patients.

METHODS: This is a non-interventional, descriptive, longitudinal study which included patients with ICU delirium. Montreal Cognitive Assessment Philippine Version (MoCA-P) was used to assess cognitive function. Visual Reproduction (VR) and Logical Memory (LM) subtests of the WMS-IV and the Symbol Search (SS) subtest of the WAIS-IV were also performed to further assess the cognitive profile of the subjects.

RESULTS: Out of 39 patients diagnosed to have ICU delirium from November 2014 to February 2015, only 8 subjects were available for evaluation in this follow-up study due to high mortality rate. Six out of the 8 patients (75%) developed cognitive impairment (MoCA-P score<20) within 18 months after hospital discharge. Together with the VR and LM subtests of WMS-IV and the SS subtest of WAIS-IV, item analysis showed that the cognitive domains affected are memory, executive function and processing speed.

CONCLUSIONS: Critically ill patients who developed delirium during their ICU admission are at high risk for development of long-term cognitive impairment. These findings underline the importance of detection and treatment of ICU delirium as it leads to a high risk of mortality and poor cognitive outcome among survivors.

Non-invasive Ventilation versus Conventional Oxygen Therapy in Immunocompromised Patients: A Meta-analysis

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ABSTRACT

RATIONALE: Respiratory failure is common in immunocompromised patients. Intubation and mechanical ventilation (MV) is the mainstay of treatment but is associated with increased risk of pneumonia and other complications. Non-invasive ventilation (NIV) is an alternative to MV in a select group of patients and aims to avoid the complications of MV. In these patients, we performed a meta-analysis on the effect of NIV versus conventional oxygen therapy in reducing intubation rates and other important clinical outcomes.

METHODS: We performed an extensive online and unpublished data search for relevant studies that met the inclusion criteria. Randomized controlled trials that used NIV versus conventional oxygen therapy in immunocompromised patients with respiratory failure were included in the review and analysis. Eligibility and risk of bias assessments were performed independently by three authors. The primary outcome of interest was intubation and mechanical ventilation rate. The secondary outcomes were intensive-care unit (ICU) and all-cause mortality, ICU length of stay and duration of mechanical ventilation.

RESULTS: Out of the 20 initially screened studies, four studies with a total of 553 patients met the criteria for inclusion and were included in the analysis. Patients given NIV were 38% less likely to be intubated vs. those given oxygen, RR 0.62 (95% CI 0.42, 0.93); however, this analysis result is significantly heterogeneous. After sensitivity analysis, results showed 48% less likelihood of intubation and mechanical ventilation in the group treated with NIV, RR 0.52 (95%CI 0.35, 0.77). Patients on NIV had 1.08 days less stay in the ICU vs. oxygen group (95%CI -1.50, -0.65 days). Three studies included ICU mortality in their outcomes and showed a statistically significant 23% decrease in ICU mortality among patients given NIV, RR 0.67 (95% CI 0.45, 0.99), and this result is homogenous I^2=40%. There was no statistically significant decrease in all-cause mortality between the two groups, RR 0.77 (95% CI 0.53, 1.11). After a sensitivity analysis performed specifically for this outcome, results showed a 32% reduction in all-cause mortality in patients given NIV vs. oxygen therapy; however was not statistically significant RR 0.68 (95% CI 0.53, 1.11) and was heterogeneous (I^2=50%). There is no difference in the duration of mechanical ventilation between groups.

CONCLUSIONS: In immunocompromised patients with respiratory failure, NIV reduced intubation rates, ICU mortality rates, and length of ICU stay, compared to standard oxygen therapy.

A Preliminary Study on the Nutritional Intake and Clinical Outcomes of Patients Admitted at the Medical Intensive Care Unit

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ABSTRACT

Background: Malnutrition is a prevalent problem in the intensive care unit. Despite several studies showing improvement in clinical outcomes with adequate and aptly timed delivery of nutritional support there is still suboptimal delivery of proper nutrition. Factors that lead to inadequate nutrition commonly includes frequent feeding interruptions, physician under prescription, gastrointestinal complications and problems related to feeding access.

Objectives: The objective of the study was to compare the actual and recommended total caloric intake of medical ICU patients and determine the relationship between the adequacy of intake and clinical outcomes.

Methodology: Thirty-six patients admitted at the medical intensive care unit were enrolled in the study. Charts were reviewed daily for prescribed caloric intake, interruptions of feeding and its duration and reason. Actual caloric intake was recorded daily. The patients were followed up until they were discharged from the ICU or expired. Paired t-test was used to compare actual caloric intake and total caloric requirement. Binary regression, simple and multiple regressions were used to determine relationship between adequacy of caloric intake, total duration of feeding interruptions and clinical outcomes.

Results: Actual caloric intake in relation to recommended total caloric intake was inadequate in 23 patients (63.89%) included in the study (p-value = 0.003). The inadequate actual caloric intake in comparison with the total caloric requirement in combination with longer duration of feeding interruptions showed that there are increased rates of hospital acquired pneumonia (p-value = 0.012), prolonged duration of mechanical ventilation (p-value 0.001), longer ICU stay (p-value 0.003) and higher mortality rates (p-value 0.001).

Conclusion: There is inadequate actual caloric intake as compared with the total caloric requirement in patients admitted at the medical ICU. Inadequate caloric intake and prolonged duration of feeding interruptions resulted to poorer clinical outcomes.

Oxygen Saturation Index as a Surrogate of PaO_2/FiO_2 Ratio in Acute Respiratory Distress Syndrome

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ABSTRACT

Background: Acute Respiratory Distress Syndrome (ARDS) is characterized by non-cardiogenic pulmonary edema, lung inflammation, hypoxemia and decreased lung compliance. It is diagnosed by using the Berlin criteria: 1) within one week of known clinical insult or new or worsening respiratory symptoms, 2) chest radiograph or computed tomography scan finding of bilateral opacities not fully explained by effusions, lobar/lung collapse, or nodules, 3) respiratory failure not fully explained by cardiac failure or fluid overload, excluded by objective assessment, and 4) oxygenation dysfunction classified as mild, moderate or severe based on PaO_2/FiO_2 Ratio. Recently, Oxygenation Index (OI), another measure of oxygenation dysfunction, has been suggested as a more accurate means of determining severity of respiratory failure compared to PaO_2/FiO_2 Ratio, due to incorporation of the Mean Airway Pressure (MAP). However, both PaO_2/FiO_2 Ratio and OI require arterial blood gas determination, which can be technically difficult, not readily available and expensive. Pulse oximetry is an alternative, reliable, and inexpensive means of monitoring oxygenation dysfunction.

Objectives: Our objective was to determine the performance of Oxygen Saturation Index (OSI), as a surrogate of PaO_2/FiO_2 Ratio, in the diagnosis of ARDS.

Methods: We reviewed the records of patients diagnosed with ARDS from January 2012 to December 2015 at the University of Santo Tomas Hospital, Philippines. Simultaneous arterial blood gas, pulse oximetry and ventilator settings were recorded during the first 1, 24, 48 and 72 hour of mechanical ventilation. PaO_2/FiO_2 Ratio, OI and OSI were then calculated. Descriptive statistics and two-way scatterplots were used to describe the correlation of PaO_2/FiO_2 Ratio, OI and OSI. A linear modeling was used to derive predictive equation for PaO_2/FiO_2 Ratio using OSI, oxygen saturation (SpO_2), respiratory rate (f) and MAP.

Results: Eighty five arterial blood gas, SpO_2 and MAP values from 27 patients (mean age = 57; 55% males) were included. PaO_2/FiO_2 Ratio was inversely related to OI and OSI, with stronger linear correlation with OI. OI and OSI were directly related. A predictive equation of PaO_2/FiO_2 Ratio was derived with a R^2 of 61.41%: PaO_2/FiO_2 Ratio = exp (3.33 + [0.03*xSpO_2] – [9.92xOSI] – [0.02xf] + [0.06xMAP]).

Conclusion: OSI may be a noninvasive surrogate measure of oxygen dysfunction in patients with ARDS.

Clinical Outcomes of Mechanically Ventilated Patients in the Intensive Care Unit Referred to Clinical Nutrition Services

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ABSTRACT

INTRODUCTION: Nutritional assessment and intervention are vital in the management of critically ill patients in the intensive care unit. This study presents a comparison of the clinical outcomes of mechanically ventilated patients in the intensive care unit (ICU) who were referred or not referred to clinical nutrition services.

METHODS: This was a retrospective cohort study conducted to compare mechanically ventilated patients in the ICU referred and not referred to clinical nutrition services based on the length of ICU stay, days on mechanical ventilator, serum parameters, APACHE II scores and mortality. Records of ventilated patients admitted in the ICU from June 1, 2014 to May 31, 2015, aged more than 18 years old, were reviewed, excluding those ventilated after cardiac arrest, dependent to mechanical ventilation before admission, terminally ill and those who died less than 24 hours post-intubation.

RESULTS: A total of 84 patients were included, of whom 29 were referred to clinical nutrition services. For both groups, there were no significant differences in the mean hemoglobin, albumin and magnesium level, the length of ICU stay, and APACHE scores. The number of mechanical ventilator days was longer for those with referral (median of 10 vs 6 days). The in-hospital mortality rate of those with nutritional referral was lower compared to those not referred, at 17.2% versus 38.2%.

CONCLUSION: Patients referred to the clinical nutrition services have a longer duration of use of mechanical ventilator but had lower mortality compared to those not referred. However, there was no significant difference in weaning outcomes and length of ICU stay.

Cohort Study on the Applicability of the Updated 2015 LCP Algorithm on Preoperative Risk Assessment as a Predictor of Postoperative Pulmonary Complications

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ABSTRACT

Purpose: Preoperative pulmonary evaluation is an essential prerequisite for lung resection because it estimates the impact of surgery on the already compromised respiratory function. This study aimed to assess the applicability of the updated Lung Cancer of the Philippines (LCP) 2015 algorithm on preoperative risk assessment in predicting postoperative pulmonary complications (PPCs) among lung resection patients.

Methods: This was a cohort observational study that included 78 patients for lung resection and evaluated by the updated 2015 LCP algorithm. The patients were followed up until discharge to observe for PPC development. The incidence of PPCs were determined in relation to the baseline demographic variables, value of predictive factors and the risk assessment.

Results: The incidence of PPCs was 29.4% patients with prolonged air leak and nosocomial pneumonia as the most common PPCs while the mortality rate was 1.3%. Male gender, smoking history, smoking of at least 20 years, FEV1 % (predicted) and postoperative FEV1 (ppoFEV1) were shown to predict PPC development. The applicability of updated algorithm in predicting PPC was found to be significant for the non-neoplastic group.

Conclusion: The applicability of the updated 2015 LCP algorithm on preoperative risk is not only limited to neoplastic patients but also for the non-neoplastic patients. The factors that predict development of PPCs include male gender, smoking history, smoking of at least 20 years, FEV1% (predicted) and ppoFEV1 value. The incidence of PPCs is the same as with other studies with prolonged air leak and nosocomial pneumonia as the most common PPCs.

Pre-operative Nutritional Assessment in Surgical Lung Resection and Occurrence of Post-operative Pulmonary Complication: A Prospective Cohort Study

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ABSTRACT

Purpose: Nutritional status is an independent factor that influences the outcome of surgery. The objective of this study was to correlate pre-operative nutritional status and post-operative pulmonary complications (PPC) among in-patients who underwent elective surgical lung resection.

Methods: This was a prospective cohort study on 27 Filipino in-patients who underwent elective lung resection. Nutritional status was evaluated using Modified Subjective Global Assessment. Post-operative pulmonary complications and length of hospital stay were then analyzed against their nutritional status.

Results: The mean age of patients was 45.26 ± 16.83 years old. Most had moderate nutritional risk (n=20), 6 were high risk and 1 was low risk. The incidence of PPC was 3 out of 27, with only 1 mortality. There was no sufficient evidence to associate nutritional status to pulmonary complications ($p>0.05$). Patients at low risk stayed in the hospital for 18 days; those with moderate risk had a mean length of stay of 18.55 ± 8.678 days; those with high risk stayed for 14.5 ± 5.01 days. There was no statistically significant between-group difference of length of stay per nutritional group ($p>0.05$).

Conclusion: Nutritional risk status, whether low, moderate or high, was not conclusively proven to be associated with PPC occurrence and increased in-hospital stay. There is a need to increase the sample size in order to establish a pattern that will link poor nutritional status to pulmonary complications and in-hospital stay.

Adherence, Enablers and Barriers to the Implementation of the Ventilator-Associated Pneumonia Bundle in the Intensive Care Units at the Makati Medical Center

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ABSTRACT

Background: The ventilator-associated pneumonia (VAP) bundle has been implemented in Makati Medical Center (MMC) since 2011. After it was implemented, we observed a significant decrease of the incidence of VAP in all intensive care units (ICU), but was not eliminated. We sought to determine the adherence rate, enablers, and barriers to the implementation of the VAP bundle in the ICUs at MMC.

Methods: This prospective cross-sectional study was conducted at the ICUs of MMC from June 2016 to December 2016. Nurses with intubated patients were monitored on how they performed the VAP bundle. The chart was checked for compliance of medical ICU officers to the VAP bundle. A self-reported survey was administered to measure adherence to interventions, guideline quality and contextual factors of the VAP bundle.

Results: A total of 45 nurses participated in the survey; in general, all had positive attitudes and reported adhering to the VAP bundle guidelines. However, 39% of respondents have poor knowledge with the initial ventilator mode in settings for Spontaneous Breathing Trials. A fourth of respondents had low knowledge on the policies and guidelines behind the VAP bundles. Medical ICU officers were able to practice VAP care bundle by assessing readiness to extubate (97.70%) and complete VAP bundle protocol order (88.89%). Universal precaution of hand hygiene was not regularly performed by staff nurses (60% compliance).

Conclusion: Nurses generally had favourable attitudes towards the VAP bundle, but improvement is needed in terms of knowledge and practice. Therefore, interventions geared for increasing adherence to the VAP bundle should focus on training to increase knowledge, and administrative policies that would support each component of the VAP bundle practice.

Yield Pattern of Three Sputum Smears in the Case Detection of Pulmonary Tuberculosis in a Tertiary Hospital (2012-2014)

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ABSTRACT

Background: Sputum smear microscopy remains the cornerstone of case detection; however, its utility is limited by poor sensitivity. In 2007, the World Health Organization (WHO) reduced the minimum number of sputum smear specimens to be examined from 3 to 2 owing to a low incremental yield in the 3rd sputum smear specimen. However, differing yield patterns of sputum smears across studies in different countries have been noted, with significant diagnostic yield in the third sputum smear and higher positivity rates utilizing 3 sputum smear specimens in high prevalence areas. The utility of a third sputum smear cannot be underestimated in a high burden of disease setting and increasing risk population such as the Philippines.

Methods: This study is a hospital-based retrospective cross-sectional chart review design from 2012 to 2014, including 893 presumptive pulmonary tuberculosis patients, aged > 18 years and with no prior history of pulmonary tuberculosis subjected to a 3-sputum smear microscopy. The pattern of positive smears, incremental yield of each sputum smear and the positivity rate of 2-smear combinations were analyzed.

Results: The study shows that the first 2 sputum smears can detect majority of cases (N=185), with the third smear adding only a minimal diagnostic yield (N=2). However, it is noted that the positivity rate increases in the succeeding sputum smear specimens with a comparable positivity rate in the second (20.4%) and third (20%) smears. Among 2-smear positive combinations, a significantly higher rate of smear positivity (2.8 %) and a higher incremental increase of positivity rate (40%) is noted with the second and third specimens over the other combinations.

Conclusion: A 3-sputum smear specimen in the case detection of pulmonary tuberculosis has non-negligible diagnostic yield in the succeeding specimens and a significantly higher rate of smear positivity is observed with 3 specimens over those with less.

Adherence to the National Tuberculosis Control Program Guidelines 2013 and Outcome of Treatment on People Living With HIV Co-Infected with Tuberculosis Enrolled in the Philippine General Hospital Treatment Hub (SAGIP)

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ABSTRACT

Background: Since diagnosing of tuberculosis (TB) among people living with human immunodeficiency virus infection (PLHIV) could be difficult, there is a delay in detection of TB and subsequent treatment. Hence, HIV-related TB deaths are significant public health problem in high HIV-prevalent settings.

Methodology: This was an observational study that accessed medical records of adult patients with HIV co-infected with TB enrolled at the SAGIP Unit from January 2014 to December 2014 seen by physicians in Philippine General Hospital were reviewed.

Results: One hundred seventy-eight HIV patients were diagnosed with TB based on the National TB Control Program (NTCP) Guidelines 2013. It was noted that all cases of HIV/pulmonary TB (PTB), the infectious diseases fellows adhered to the guidelines set by the NTCP in requesting CD4 count upon diagnosis. In majority of the cases of HIV/PTB clinically and bacteriologically diagnosed, the physician requested for a chest radiograph in 99% and 98%, respectively. All HIV/PTB that were bacteriologically diagnosed underwent direct sputum smear microscopy (DSSM) while only 96% of cases of HIV/PTB clinically diagnosed were requested by DSSM. Majority of the cases for HIV/PTB had TB culture performed. The rate of use of MTB/Rif examination was low.

Assessment of the Utilization of Gene Xpert MTB/RIF in the Philippine Tuberculosis Society, Inc.

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ABSTRACT

Background: The Xpert MTB/RIF assay offers an automated, real-time molecular diagnostic system that simultaneously detects TB and rifampicin resistance with minimal hands-on time with results being available in less than two hours. In the Philippine Tuberculosis Society, Inc. (PTSI), the Gene Xpert MTB/RiF apparatus is used for all TB re-treatment cases and individuals with symptomatic HIV infection.

Purpose: To assess the current state of utilization of MTB/ RIF (Gene Xpert) machine in PTSI

Findings: The PTSI received numerous (n=4,050) referrals from at least 7 different treatment centers; however, policies in the management of referrals from the private sector are lacking. Therefore, these referrals were enrolled in a treatment centre prior to testing. Only one of the three medical technologists in PTSI has undergone Gene Xpert training.

Conclusion: This study shows that the use of Gene Xpert MTB/RIF is not being maximized by treatment centers. Operating procedures need to be implemented to fully optimize the use of the Gene Xpert MTB/RIF module—including a guideline in dealing with referrals from the private sector.

Validity study of Gene Xpert MTB/Rif Assay in the Diagnosis of Tuberculous Pleural Effusion among Adult Patients at the Lung Center of the Philippines

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ABSTRACT

Introduction: Tuberculous pleural effusion can be difficult to diagnose and existing tests to confirm the disease are limited in accuracy, time to diagnosis and requires costly invasive procedures. The objective of this study was to determine the accuracy of Gene Xpert MTB/Rif Assays in the diagnosis of tuberculous pleural effusion among adult patients at the Lung Center of the Philippines.

Methodology: This was a cross sectional analytical study among 60 patients with unilateral pleural effusion seen at the Lung Center of the Philippines from October 2014 to September 2016. Either thoracentesis, closed tube thoracostomy or VATS with pleural biopsy was done. The specimens were sent for histology, MTB culture, and Gene Xpert. Results were collected for data analyses.

Results: Of the 60 study participants, 26 (43.3%) had definite tuberculous pleural effusion. The diagnostic accuracy of this test was compared to MTB Culture, Histology and Composite Reference Standard. Gene Xpert in relation to MTB culture showed sensitivity and specificity of 100% and 94.34% respectively, in relation to histopathology, the sensitivity was 14.29% and the specificity was 82.05% and in relation to the composite reference standard, the sensitivity was 30.77% and the specificity was 94.12%.

Conclusion: The Gene Xpert MTB/RIF assay has poor sensitivity, thus, it is not a good routine diagnostic tool for the diagnosis of tuberculous pleural effusion even in high burden settings such as our country. On the other hand, with its high specificity, it can forestall further invasive procedures in some patients with tuberculous pleural effusion.

Performance of TB Diagnostic Committee in Certifying Disease Activity of Smear Negative Category II Cases in District IV of Manila

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ABSTRACT

Introduction: Tuberculosis (TB) is a major global health problem. The initial work-up of choice is direct sputum smear microscopy (DSSM). Yet, smear negative TB accounts for 50% of cases in the Philippines. The TB Diagnostic Committee (TBDC) functions is to review presumptive TB cases who are smear-negative on DSSM, with chest radiograph findings suggestive of TB, and give recommendations for treatment.

Objectives: To determine the performance of the TBDC in certifying disease activity of smear negative Category II cases in District IV of Manila from January 2013 to June 2014, using the MTB culture or Xpert MTB/RIF as the standard. Secondly, to establish association between symptoms and chest radiograph findings which members of the USTH TBDC relate with TB disease activity and which eventually tested positive for MTB culture or Xpert MTB/RIF.

Methodology: Patients suspected of having active pulmonary TB based on symptoms and chest radiograph findings, with negative sputum AFB smear results, in District IV of Manila, referred to the TBDC for possible Category II treatment from January 2013 to June 2014 were listed. TB culture or Xpert MTB/RIF results of the presumptive TB cases recommended for Category II treatment were obtained. The frequency of symptoms and chest radiograph findings among patients were listed and cross-tabulated with sputum MTB culture or Xpert MTB/RIF results.

Results: The TBDC assessed a total of 257/952 (27%) smear negative patients to have active TB, for possible Category II treatment during the study period. Out of 143 (55.64%) patients who followed up and submitted sputum specimens for MTB culture or Xpert MTB/RIF testing, only 22/116 (19%) tested positive for Xpert MTB/RIF, and 7/27 (26%) tested positive for MTB culture, for a total of 29 (20.28%) bacteriologically confirmed smear negative cases. Symptoms highly correlated with TB activity are cough and sputum production. Chest radiograph finding of ill defined infiltrates had moderate correlation to disease activity..

Conclusion: There is limited data to conclude the correlation of TBDC decision with TB disease activity. A prospective study is recommended. However, in the absence of laboratory tests or ancillaries and expert opinion, presence of cough, sputum production, together with ill-defined infiltrates on chest radiographs can help primary physicians in deciding disease activity in smear negative TB.

Turnaround Time for Smear Negative Category I Cases to Initiation of Treatment in District IV of Manila

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ABSTRACT

Background: The diagnosis of tuberculosis (TB) requires bacteriologic confirmation through direct sputum smear microscopy, allowing early access to treatment. Thus, smear negative cases become a diagnostic dilemma. Certification of disease activity from TB Diagnostic Committee (TBDC) is needed to curb unnecessary treatment. Turnaround time starts from collection of first sputum sample to initiation of treatment and should be within five working days based on local guidelines.

Objectives: To determine the mean turnaround time for new smear-negative pulmonary TB (PTB) cases in District IV of Manila referred to the University of Santo Tomas Hospital TBDC from January to December 2014.

Methods: A retrospective descriptive study was done to determine the number of days it took for new smear negative PTB cases to initiate treatment. Demographic data was noted. The intervals between submission of sputum, TBDC certification and the first dose of anti-TB medication were obtained.

Results: There were 153 patients in the study. The mean total turnaround time was 37.78 $\pm$ 24.62 days, with a mean of 14.30 $\pm$ 18.58 days from sputum collection to follow-up at the health care facility; 12.74 $\pm$ 10.15 days thereafter to TBDC referral, and another 10.69 $\pm$ 15.18 days to initiation of treatment.

Conclusion: There was significant delay in initiation of treatment among smear negative PTB cases, mostly observed for follow-up visits after sputum collection and interval time to TBDC referral. This reflects a poorly functioning default tracing mechanism among Directly Observed Treatment Strategy facilities even at the diagnostic phase, which has negative implications for infection prevention and control.

Risk Factors for Development of Secondary Spontaneous Pneumothorax in Patients with Pulmonary Tuberculosis Admitted to the Lung Center of the Philippines: A 10-year Experience

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ABSTRACT

Purpose: Tuberculosis (TB) remains one of the world's deadliest communicable diseases and remains an important cause of secondary spontaneous pneumothorax (SSP) especially in the developing world. Although a rare but well-recognized complication, spontaneous pneumothorax complicating pulmonary TB (PTB) is scantily reported in the literature. For this reason, our study aimed identifying frequency of presentation and variables that will predispose PTB patients in developing secondary spontaneous pneumothorax.

Methods: This was a retrospective cohort study analyzing data corresponding to the medical records of all patients with SSP and TB admitted and treated in our hospital between January 1, 2004 to December 31, 2013. The following data were collected: demographic (age, gender, body mass index [BMI], social service classification), history of smoking, co-morbid illness (chronic obstructive pulmonary disease, bronchial asthma, pneumonia, diabetes and bronchiectasis), radiographic presentation (atelectasis, cavitation, bronchiectasis, consolidation, destroyed lung, effusion and pleural thickening), and treatment course of anti-TB medications.

Results: The mean age was 44±16 years old. The average BMI was 19.26 ± 3.94 kg/m^2 while average smoking history was 13.92 ± 19.73 pack-years The study population was predominantly male (68.9%). Majority had a normal BMI (52.2%); 31.7% were underweight and 16.1% were overweight. Out of the 508 patients in this study, 14.4% developed SSP. Incidence of SSP were significantly associated with middle-aged patients, males, underweight and who were under the "Service" classification. Pneumonia as a co-morbid illness and chest x-ray findings of reticular infiltrates were significantly related to the development of SSP in this study.

Conclusion: The incidence of SSP was 14.4%. There were higher incidences of SSP among patients in the middle-aged group, males, underweight, and patients availing of service classification upon admission.

Outcomes of Multi Drug Resistant Tuberculosis Contacts who received Category I Treatment for Clinically Diagnosed Pulmonary Tuberculosis under DOTS

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ABSTRACT

Introduction: MDRTB is a highly infectious disease and containing its spread requires close contact investigation and treatment of contacts with TB disease. The objective of this study was to determine the outcome of Multi Drug Resistant Tuberculosis (MDRTB) Contacts who were recommended Category I Treatment for Clinically Diagnosed Pulmonary Tuberculosis under DOTS.

Methods: This is a cross-sectional study involving MDRTB close contacts diagnosed to have clinically diagnosed TB. Subjects were followed up through phone call and were asked as to outcome of treatment with Category I anti-Tuberculosis medication. Subjects were then asked to come for follow up at the Lung Center OPD wherein a repeat chest x-ray and sputum acid-fast bacilli smear were done to validate if treatment was successful or not. Demographic profiles were obtained and correlated with the outcome of treatment.

Results: Forty-one MDRTB contacts were included in the study. However, only 31 were contacted. Fourteen refused to participate. Demographic data were obtained. Among the subjects, 6 were lost to follow-up during treatment and 11 completed treatment. On their follow-up, 58.8% had no TB relapse; hence treatment was considered successful. Younger age (18-40 years old) showed association with successful outcome among all the other factors evaluated (p=0.0397).

Conclusion: Treatment with Category I drugs for Clinically Diagnosed PTB among MDRTB contacts resulted in a successful outcome in majority of subjects. Among the factors evaluated, only younger age group showed association with a successful treatment outcome.

Prevalence of Tuberculosis Infection in Cancer Patients at Veterans Memorial Medical Center

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ABSTRACT

Cancer patients have depressed adaptive cellular immunity which predisposes them to infections associated with cell-mediated immunity deficiencies like Mycobacterium tuberculosis. Cancer therapy also adds to adaptive cellular immunity dysfunction it further increase the risk for development or reactivation of TB. There is paucity of data in the Philippines describing the burden of TB in cancer patients hence this study.

This study retrospectively reviewed charts of cancer patients histologically diagnosed from 2011 to 2013 and followed up for development or TB reactivation prior, during and after cancer specific therapies. The overall computed period prevalence of TB infection in cancer patients in Veterans Memorial Medical Center was 2.3% or 6 cases per person-years. Tuberculosis infection developed in 67% (12) of case patients prior to cancer specific therapies, 5% (1) during the duration of cancer specific therapy and 28% (5) after cancer specific therapy completion. Cancer therapy posed 15 times odds for tuberculosis infection (OR 15; 95% CI 3.0968, 77.7371; p=0.0009). Among the different cancer types, lung cancer patients (12.5%) were more associated with tuberculosis infection. Lung cancer had 6 times odds of TB infection than other cancer type (OR 5.9; 95% CI: 1.2484-28.4083; p=0.0252). Six percent developed in hematologic and bone malignancy (6%), 2.8% in head and neck malignancies, 2.5% in breast cancer patients (2.5%), 2% in patients with gastrointestinal malignancy and 1.3% in genitourinary malignancy patients.

Association of cancer with chronic illness like COPD posed 9 times odds for TB infection (OR 9.1; 95% CI 2.6122-31.7018; p=0.0005). Cancer patients with pulmonary manifestations had 5 times odds for TB infection compared to asymptomatics (OR 4.9231; 95% CI 1.5234-15.9100; p=0.0077). History of previous TB infection and treatment had 6 times odds for TB infection in cancer patients than those without previous anti-TB treatment (OR 5.8000; 95% CI 2.0040, 16.6577; $p \leq 0.0012$). Lung cancer was commonly associated with tuberculosis infection (OR 5.9554; 95% CI 1.2484, 28.4083; p=0.0252). In this study, no deaths were noted among cancer patients with associated TB infection.

It is thereby prudent that proper assessment for concurrent TB infection be undertaken during cancer diagnosis, prior to initiation, during and after cancer specific therapies. However, because of the limitations of the study, it is recommended that a prospective and multicenter study be done to fully assess the prevalence and characteristics of cancer patients prone to develop tuberculosis in the Philippine setting.

Clinical Profile and Outcome of Patients Presenting with Hemoptysis Admitted in a Tertiary Hospital

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ABSTRACT

Background: There is a paucity of epidemiologic data on patients presenting with hemoptysis in the Philippines. This study primarily aims to determine the causes of hemoptysis, diagnostic tests used, treatment administered and outcome of patients who present with hemoptysis.

Methods: A retrospective chart review was performed on patients with hemoptysis admitted to Philippine General Hospital (PGH) from January 2011 to December 2015. Demographic data, initial clinical symptoms and signs, diagnostic tests after initial chest x-ray, treatment and outcomes were collected for analysis.

Results: Twenty-six patient charts from January 2011 to December 2015 were reviewed. Only 69.2% of patients initially presented with hemoptysis. Diagnostic tests done after the initial chest x-ray were Chest CT scan (12%), bronchoscopy (15%), both chest computed tomography (CT) scan and bronchoscopy (4%). The causes of hemoptysis were bronchiectasis (50%), aspergilloma (19%), tuberculosis (12%), pneumonia (12%), recurrent papillary thyroid carcinoma (4%) and severe thrombocytopenia (4%). Twenty-four (92%) patients were given conservative medical therapy and two (8%) patients underwent surgery. Control of bleeding was achieved in all of the patients.

Conclusion: The most common causes of admission for hemoptysis in PGH are benign treatable diseases. Conservative medical therapy can stop bleeding in about 90% of patients with either non-massive or massive hemoptysis. Further diagnostic tests after chest x-ray should still be done. Bronchial artery embolization should be considered in cases of persistent hemoptysis. Surgical intervention should be done in appropriate cases as an elective procedure.

Validity of Pleural Fluid Cholesterol in Differentiating Exudative from Transudative Pleural Effusions

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ABSTRACT

Introduction: Pleural effusion is one of the most common diagnoses in pulmonary medicine. Distinguishing between exudative and transudative effusions is the first step in its management. Light's criteria have long been the method used for such. This study aims to compare Light's criteria with pleural fluid cholesterol and its ratio with serum cholesterol in separating exudative from transudative pleural effusions and to possibly introduce an easier, more cost-effective method than Light's criteria.

Methods: A cross sectional, analytical study design was used. Sixty-three patients with pleural effusion were included in the study. After pleural effusion drainage, pleural fluid and blood were submitted to the laboratory for protein, lactate dehydrogenase (LDH), and cholesterol. The pleural effusion is labeled exudative according to Light's criteria, pleural fluid cholesterol > 45 mg/dL (1.2 mmol/L), or pleural fluid cholesterol/serum (P/S) cholesterol ratio ≥ 0.4.

Results: Based on diagnosis, most patients had pulmonary tuberculosis (44.4%), followed by bronchogenic carcinoma (27%). The resulting sensitivity indicates a 96.49% probability that the pleural fluid cholesterol and P/S cholesterol ratio result is exudative when the Light's criteria result is exudative. The resulting specificity (probability that the pleural fluid cholesterol results to transudate when the Light's criteria is transudate) is 100%. The high values indicate that pleural fluid cholesterol and P/S cholesterol ratio can predict the result of Light's criteria. Light's criteria, pleural fluid cholesterol, and P/S cholesterol ratio all misclassified a small percentage of exudative pleural effusions as transudates; the difference in accuracy of the parameters was not statistically significant.

Conclusion: After recognizing the limitation of a population with purely exudative pleural effusions, pleural fluid cholesterol levels and its ratio with serum cholesterol can significantly aid the diagnosis of pleural exudates since it can accurately predict the results of Light's criteria.

Effectiveness of Mechanical Cough Assist (Insufflator-Exsufflator) among Hospitalized Patients: An Open-Label Randomized Control Study

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ABSTRACT

Introduction: Cough reflex is very important to propel secretions. Airway clearance may be impaired in several patients. Interventions for enhancing airway clearance are already available however limited studies are available in determining its benefit and endpoints. Chest Physiotherapy (CPT) is already established as a standard of care for selected pulmonary conditions. However, CPT may not be feasible at all times. With these, mechanical cough assist machine may be an option and studies are yet to develop among other subset of patients, especially those with pulmonary conditions.

Method: This was a randomized open-label study that included adults admitted either of pneumonia or bronchiectasis in infectious exacerbation, with a Peak Cough Flow (PCF) rate of $\leq$270L/min. Patients who were intubated or had COPD in exacerbation, history of bullous emphysema, susceptibility to pneumothorax or pneumo-mediastinum, barotrauma, facial fractures, gastric distention, hypotension, increased intracranial pressure and hemoptysis were excluded. Patients were enrolled and randomly allocated to CPT or CPT plus mechanical insufflation-exufflation (MI-E). PCF rate were measured and compared.

Results: Patients given with CPT plus MI-E rated the machine in terms of helping in expectoration, convenient and easy to use, well tolerated and satisfaction as effective. The peak cough flow rate and sputum volume in CPT plus MI-E is significantly higher than the CPT. No sufficient evidence to say that the difference on the length of hospital stay, intubation and mortality between treatments were significant.

Conclusion: A good cough reflex is important in maintaining the integrity of the airway. In general the machine was rated as effective in terms of helping in expectoration (increased sputum volume production and improvement in the PCF rate), convenience, tolerance and satisfaction. The peak cough flow rate and sputum volume improved more with the CPT plus MI-E. There was not sufficient evidence to say that there was a statistical difference in terms of length of hospital stay, intubation and mortality rate between the two groups.

Diagnostic Accuracy of Berlin, Sleep Apnea Clinical Score, and St. Luke's Medical Center-Obstructive Sleep Apnea (OSA) Clinical Score Questionnaires for OSA Screening Among Filipinos: A 4-Year Retrospective Study

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ABSTRACT

Introduction: Obstructive sleep apnea (OSA) is a chronic condition that is less recognized. There are ethnic differences in prevalence of OSA and its severity. South Asians had significantly increased prevalence of OSA. Although considered as a gold standard, the polysomnogram process is time consuming, labor intensive, and can be costly. Using prediction rule is the easiest and least costly approach. Hence, a simple but accurate screening tool to identify patients with high risk for OSA should be established for Filipinos.

Methods: Records of all Filipino patients, 18 years old or above, referred to the Comprehensive Sleep Disorders Center of SLMC-QC for overnight polysomnography from January 2011 to June 2015 were reviewed. Subjects were excluded if they were known OSA patients, had incomplete questionnaires and unable to tolerate sleep study. Screening tools namely Berlin, Sleep Apnea Clinical Score (SACS), and St. Luke's Medical Center-Obstructive Sleep Apnea Clinical Score Questionnaires (SLMC-OSACS) were scored identifying patients for OSA. Results were compared to overnight polysomnogram.

Results: SLMC–OSACS score showed higher sensitivity (87%) and overall accuracy (84%) in predicting OSA. It showed higher overall accuracy (63%) and sensitivity (77%) in predicting mild OSA. It also has higher overall accuracy (66%) and sensitivity (80%) in predicting moderate OSA. In predicting severe OSA, it also has higher overall accuracy (86%) and sensitivity (90%) while specificity showed almost similar estimates in all of the three screening tools.

Conclusion: SLMC–OSACS showed higher sensitivity and higher overall accuracy in predicting OSA at different risk levels. Therefore, SLMC-OSACS is recommended as a screening tool for OSA for Filipinos.

Endobronchial Ultrasound-Guided Transbronchial Needle Aspiration in the Philippines: A Preliminary Retrospective Cohort Study on Diagnostic Performance

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ABSTRACT

Background and Aims: Endobronchial ultrasound transbronchial needle aspiration (EBUS-TBNA) is a bronchoscopic technique utilized for staging lung cancer and evaluating mediastinal lymphadenopathy. EBUS-TBNA was introduced in the Philippines during a seminar in 2013 and has been in regular use at our institution since 2014. The objective of this study was to evaluate the diagnostic yield and complications of the procedure, as well as the factors affecting both.

Methods: A retrospective chart and histopathologic review was done on 26 consecutive adult patients who underwent EBUS-TBNA at The Medical City between January 2015 and December 2015. Procedural and patient-related factors were analyzed for association with diagnostic yield.

Results: The overall diagnostic yield of EBUS-TBNA was 85% (22/26); of these, 82% (18/22) were malignant and 18% (4/22) were benign disease secondary to tuberculosis. Subcarinal lymph node location and three or more aspirations per procedure showed a tendency to improve diagnostic yield. No major complications were associated with the procedure.

Conclusion: This preliminary experience in the Philippines showed that EBUS-TBNA is a promising tool for the evaluation of mediastinal lymphadenopathy and lesions, with high diagnostic yield and safety profile. Future, larger-scale studies are needed to determine the ways of significantly improving diagnostic performance.

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