

Thursday, November 7th, 2019

- Pearl Room -

· **Subject Category : COPD**

10:30 ~ 12:00

1. Fixed airway obstruction (FAO) may be redefined in COPD according to exacerbation
So-Young Park^{1*}, Kwang Ha Yoo¹, Sung Ok Kwon²
(¹Division of Pulmonology, Allergy and Critical care medicine, Department of Internal Medicine, Konkuk University Medical Center, Seoul, Republic of Korea, ²Biomedical Research Institute, Kangwon National University, Chuncheon, Republic of Korea)
2. The value of FEF25-75% can be an early predictor for development of chronic obstructive pulmonary disease
Do Sun Kwon*, Yong Jun Choi, Tae Hee Kim, Min Kwang Byun, Hyung Jung Kim, Hye Jung Park
(Department of Internal Medicine, Gangnam Severance Hospital, Seoul, Republic of Korea)
3. The Effect of Low Body Mass Index on the Development of Chronic Obstructive Pulmonary Disease and Mortality
Hye Jung Park^{1*}, Jae Hwa Cho¹, Hyung Jung Kim¹, Ju-Young Park¹, Hye Sun Lee², Min Kwang Byun¹
(¹Department of Internal Medicine, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea, ²Biostatistics Collaboration Unit, Yonsei University College of Medicine, Seoul, Republic of Korea)
4. Gut microbial modulation attenuates COPD development via suppression of inflammation and apoptosis
Se Hee Lee^{1*}, Yoon Ok Jang², Jong Jin Choi², Jae Seung Lee¹, Yeon-Mok Oh¹, Sang-Do Lee¹, Sei Won Lee¹
(¹Pulmonology and Critical Care Medicine, Asan Medical Center, Seoul, Republic of Korea, ²Convergence Medicine, Asan Medical Center, Seoul, Republic of Korea)
5. Clinical impact of forced vital capacity on exercise performance in patients with chronic obstructive pulmonary disease
Seong Mi Moon¹, Jun Hyeok Lim^{2*}, Kyeong-Cheol Shin³, Chang Youl Lee⁴, Do Jin Kim⁵, Sang Haak Lee⁶, Ki Suck Jung⁷, Chang-Hoon Lee⁸, Kwang Ha Yoo⁹, Hye Yun Park¹⁰, Hyun Lee¹¹
(¹Division of Pulmonary and Critical Care Medicine, Department of Medicine, Samsung Changwon Hospital, Sungkyunkwan University School of Medicine, Changwon, Republic of Korea, ²Division of Pulmonology, Department of Internal Medicine, Inha University Hospital, Inha University School of Medicine, Incheon, Republic of Korea, ³Division of Pulmonology and Allergy, Regional Center for Respiratory Disease, Yeungnam University Medical Center, Daegu, Republic of Korea, ⁴Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, Chuncheon Sacred Heart Hospital,

Hallym University, Chuncheon, Gangwon-do, Republic of Korea , ⁵Department of Internal Medicine, Soonchunhyang University Bucheon Hospital, Bucheon, Republic of Korea , ⁶Division of Pulmonary, Critical Care and Sleep Medicine, Department of Internal Medicine, St. Paul's Hospital, College of Medicine, Department of Internal Medicine, The Catholic University of Korea, Seoul, Republic of Korea , ⁷Division of Pulmonary Medicine, Department of Internal Medicine, Hallym University Sacred Heart Hospital, Hallym University Medical School, Anyang, Republic of Korea , ⁸Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Republic of Korea , ⁹Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Konkuk University Medical Center, Konkuk University School of Medicine, Seoul, Republic of Korea , ¹⁰ Division of Pulmonary and Critical Care Medicine, Department of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea , ¹¹ Division of Pulmonary Medicine and Allergy, Department of Internal Medicine, Hanyang University College of Medicine, Seoul, Republic of Korea)

6. Absence of Exhalation Before Inhaler Use Is Associated with Acute Exacerbation in Patients With COPD

Min Ju Jo* , Ji-Yong Moon , Sung Jun Chung , Yoomi Yeo , Tai Sun Park , Hyun Lee , Dong Won Park , Sang-Heon Kim , Tae Hyung Kim , Jang Won Sohn , Ho Joo Yoon
(Internal Medicine, Hanyang University College of Medicine, Seoul, Republic of Korea)

7. Effects of repeated education of inhaler device handling by advanced practice nurse in teaching Korean chronic obstructive pulmonary disease patients

June Hong Ahn* , Kwan Ho Lee , Jin Hong Chung , Kyeong-Cheol Shin , Eun Young Choi , Hyun Jung Jin , Jong Geol Jang , Kyung Soo Hong , Young Seok Lee , Euna Lee , Mi Jeong Nam
(Department Of Internal Medicine, Yeungnam University College Of Medicine, Daegu, Republic of Korea)

8. Critical inhaler handling error is an independent risk factor of frequent exacerbation of chronic obstructive pulmonary disease.

June Hong Ahn* , Kwan Ho Lee , Jin Hong Chung , Kyeong-Cheol Shin , Eun Young Choi , Hyun Jung Jin , Jong Geol Jang , Kyung Soo Hong , Young Seok Lee , Euna Lee , Mi Jeong Nam
(Department of Internal Medicine, Yeungnam University College Of Medicine, Daegu, Republic of Korea)

9. Evaluating inhaler device handling technique and risk factors for critical inhaler errors in Korean chronic obstructive pulmonary disease patients: single center study of 261 patients

June Hong Ahn* , Kwan Ho Lee , Jin Hong Chung , Kyeong-Cheol Shin , Eun Young Choi , Hyun Jung Jin , Jong Geol Jang , Kyung Soo Hong , Young Seok Lee , Euna Lee , Mi Jeong Nam
(Department of Internal Medicine, Yeungnam University College Of Medicine, Daegu, Republic of Korea)

13:30 ~ 15:00

10. Clinical characteristics according to CAT score level in COPD patients: Cross-sectional study

Hyun-Il Gil^{*}, Sungmin Zo, Jiyeon Kang, Noeul Kang, Hyunkyu Cho, Yeonseok Choi, Junsu Choe, Hye Yun Park, Sun Hye Shin

(Division of Pulmonary and Critical Care Medicine, Department of Medicine, Samsung Medical Center, Seoul, Republic of Korea)

11. CAT Score and SGRQ Definitions of Chronic Bronchitis as an Alternative to the Classical Definition

Joon Young Choi^{1*}, Chin Kook Rhee⁹, Hyoung Kyu Yoon², Kyeong-Cheol Shin³, So-Young Park⁴, Chang Youl Lee⁵, Seung Won Ra⁶, Ki Suck Jung⁷, Kwang Ha Yoo⁴, Chang-Hoon Lee⁸

(¹Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, St. Vincent's Hospital, Suwon, Republic of Korea, ²Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Yeouido St Mary's Hospital, Seoul, Republic of Korea, ³Division of Pulmonology and Allergy, Regional Center for Respiratory Disease, Yeungnam University Medical Center, Daegu, Republic of Korea, ⁴Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, Konkuk University School of Medicine, Seoul, Republic of Korea, ⁵Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Chuncheon Sacred Heart Hospital, Hallym University Medical Center, Chuncheon, Republic of Korea, ⁶Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Ulsan University Hospital, University of Ulsan College of Medicine, Ulsan, Republic of Korea, ⁷Division of Pulmonary Medicine, Department of Internal Medicine, Hallym University Sacred Heart Hospital, Hallym University Medical School, Anyang, Republic of Korea, ⁸Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Republic of Korea, ⁹Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, Seoul St. Mary's Hospital, Seoul, Republic of Korea)

12. Racial differences in COPD patients with smoking history: Analysis of 2 nationwide cohort studies from the KOCOSS and COPDGene studies

Hye Yun Park^{1*}, Hyun Lee², Danbee Kang³, Chin Kook Rhee⁴, Juhee Cho³, Kwang Ha Yoo⁵

(¹Medicine, Samsung Medical Center, Seoul, Republic of Korea, ² Internal Medicine, Hanyang University College of Medicine, Seoul, Republic of Korea, ³ Center for Clinical Epidemiology, Samsung Medical Center, Seoul, Republic of Korea, ⁴ Internal Medicine, Catholic University of Korea, Seoul, Republic of Korea, ⁵Internal Medicine, Konkuk University School of Medicine, Seoul, Republic of Korea)

13. Clinical Characteristics of Females with Chronic Obstructive Pulmonary Disease in Korea
ShinYoung Kim^{1*}, HyoungKyu Yoon⁸, ChinKook Rhee², Yong Hyun Kim³, Jin Hwa Lee⁴, Ki Uk Kim⁵, Ki Suck Jung⁶, Kwang Ha Yoo⁷

(¹Department of Internal Medicine, The Catholic University of Korea, St. Vincent's Hospital, Suwon, Republic of Korea, ²Department of Internal Medicine, The Catholic

University of Korea, Seoul St. Mary's Hospital, Seoul, Republic of Korea , ³Department of Internal Medicine, The Catholic University of Korea, Bucheon St. Mary's Hospital, Bucheon, Republic of Korea , ⁴Department of Internal Medicine, College of Medicine Ewha Womans University, Seoul, Republic of Korea , ⁵Department of Internal Medicine, Pusan National University School of Medicine, Busan, Republic of Korea , ⁶Department of Internal Medicine, Hallym University Sacred Heart Hospital, Anyang, Republic of Korea , ⁷Department of Internal Medicine, Konkuk University Medical Center, Konkuk University School of Medicine, Seoul, Republic of Korea , ⁸Department of Internal Medicine, The Catholic University of Korea, Yeouido St. Mary's Hospital, Seoul, Republic of Korea)

14. Association between exhaled volatile organic compounds and eosinophil count in chronic obstructive pulmonary disease

Yune Young Shin* , Ho Il Yoon , Choon-Taek Lee , Jae Ho Lee , Young-Jae Cho , Jong Sun Park , Yeon Joo Lee , Eun Sun Kim , Sung Yoon Lim , Byung Soo Kwon , Yong Hee Lee , Sun Young Choi , Yeon Wook Lee

(Pulmonology and Critical Care, Seoul National University Bundang Hospital, Bundang, Republic of Korea)

15. Serum interleukin-33 level was associated with previous acute exacerbation history in COPD patients

Hwa Young Lee^{1*} , Kwang Ha Yoo² , Ki-Suck Jung³ , Chin Kook Rhee¹

(¹Allergy and Pulmonology, Seoul St Mary's Hospital, College Of Medicine, Seoul, Republic of Korea , ²Allergy and Pulmonology, Konkuk University College of Medicine, Seoul, Republic of Korea , ³Pulmonary, Allergy and Critical Care Medicine, Hallym University Medical Center, Hallym University College of Medicine, Anyang, Republic of Korea)

16. Relationship of Serum Lymphocyte with Outcomes in Chronic Obstructive Pulmonary Disease

Sung Woo Moon^{1*} , Ah Young Leem¹ , Young Sam Kim¹ , Ji-Hyun Lee² , Tae-Hyung Kim³ , Yeon Mok Oh⁴ , Sang Do Lee⁴ , Ji Ye Jung¹ , KOLD Study Group⁵

(¹Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea , ²Department of Internal Medicine, CHA Bundang Medical Center, CHA University, Seongnam, Republic of Korea , ³Division of Pulmonary and Critical Care Medicine, Hanyang University Guri Hospital, Hanyang University College of Medicine, Guri, Republic of Korea , ⁴Department of Pulmonary and Critical Care Medicine and Clinical Research Center for Chronic Obstructive Airway Diseases, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea , ⁵Republic of Korea)

17. Serum alanine aminotransferase levels as a marker of predicting chronic obstructive pulmonary disease development in male or current smokers.

Yong Jun Choi* , Do Sun Kwon , Taehee Kim , Jae Hwa Cho , Hyung Jung Kim , Hye Jung Park

(Internal Medicine, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea)

18. Blood lead exposure in COPD

Joo Hun Park^{1*}, Eunyoung Lee², Bumhee Park², Yun-Jung Jung¹, Woo Young Chung¹, Ji Eun Park¹, Keu Sung Lee¹, Seung Soo Sheen¹, Sung Chul Hwang¹, Kwang Joo Park¹
(¹Pulmonary and Critical Care Medicine, Ajou University School of Medicine, Suwon, Republic of Korea, ²Biomedical Informatics, Ajou University School of Medicine, Suwon, Republic of Korea)

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19. Impact of inhaled corticosteroids on lung cancer in chronic obstructive airway diseases :
A systemic review and Meta-analysis

Suh-Young Lee^{1,2*}, Hye-Ryun Kang^{1,2}, Heung-Woo Park^{1,2}, Sang-Heon Cho^{1,2}
(¹Internal Medicine, Seoul National University College of Medicine, Seoul, Republic of Korea, ²Institute of Allergy and Clinical Immunology, Seoul National University Medical Research Center, Seoul, Republic of Korea)

20. Efficacy of Revefenacin in COPD Patients: What We Know from The Latest Clinical Trial, A Systematic Review and Meta-Analysis

Muhamad Dwi Heriansyah^{1,3*}, Agil Noviar Alviroso^{2,3}
(¹Internship Medical Doctor, Puri Asih General Hospital, Salatiga/Central Java, Indonesia, ²Internship Medical Doctor, Dr Haryoto Regional General Hospital, Lumajang/East Java, Indonesia, ³Faculty Of Medicine, Sebelas Maret University, Solo/Central Java, Indonesia)

21. Stable clinical course of COPD patients in the era of dual bronchodilator therapy: the real-world data

Noeul Kang^{*}, Sun Hye Shin, Hyunkyu Cho, Junsu Choe, Yeonseok Choi, Hyun-Il Gil, Jiyeon Kang, Hye Yun Park
(Division of Pulmonary and Critical Care Medicine, Department of Medicine, Samsung Medical Center, Seoul, Republic of Korea)

22. Effect of PPAR- γ agonist on clinical outcomes in patients with COPD and DM

HaeIn Jung^{*}, Chul-Gyu Yoo
(Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Republic of Korea)

23. Effect of long-term azithromycin therapy in COPD patients with or without bronchiectasis

Yeonseok Choi^{*}, Sun Hye Shin, Hyunkyu Cho, Noeul Kang, Junsu Choe, Jiyeon Kang, Hyun-Il Gil, Hye Yun Park
(Division of Pulmonary and Critical Care Medicine, Department of Medicine, Samsung Medical Center, Seoul, Republic of Korea)

24. COPD Exacerbation according to Chronic Bronchitis and Body Mass Index: Findings from KOCOSS cohort

Sun Hye Shin^{1*} , Sung Ok Kwon² , Edwin Kepner Silverman³ , Chin Kook Rhee⁴ , Kwang Ha Yoo⁵ , Woo Jin Kim⁶ , Hye Yun Park¹

(¹Division of Pulmonary and Critical Care Medicine, Department of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea ,

²Biomedical Research Institute, Kangwon National University Hospital, Chuncheon,

Republic of Korea , ³Channing Division of Network Medicine, Division of Pulmonary and Critical Care Medicine, Department of Medicine, Brigham and Women's Hospital and

Harvard Medical School, Boston, United States , ⁴Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, Seoul St Mary's Hospital,

College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea ,

⁵Department of Internal Medicine, Konkuk University School of Medicine, Seoul,

Republic of Korea , ⁶Department of Internal Medicine and Environmental Health Center,

Kangwon National University Hospital, School of Medicine, Kangwon National

University, Chuncheon, Republic of Korea)

25. Dental hygiene and COPD exacerbations

Hye Sook Choi^{1*} , Chin Kook Rhee² , Yong Bum Park³ , Kwang Ha Yoo⁴ , Jung Mi Lee¹ , Kyung Hee Son¹ , Seung Hyun Lee¹ , Kwak Won Kun¹

(¹Internal Medicine, Kyung Hee Medical Center, Seoul, Republic of Korea , ²Internal

Medicine, Seoul St's Mary's Hospital, Seoul, Republic of Korea , ³Internal Medicine,

Kangdong Sacred Heart Hospital, Seoul, Republic of Korea , ⁴Internal Medicine, Konkuk

University Hospital, Seoul, Republic of Korea)

26. Role of FIB-4 score in COPD patients as predictor for acute exacerbation and mortality: A retrospective single center study

Seung Hyun Yong^{*} , Seung Up Kim , Ah Young Leem , Young Sam Kim , Joon Chang , Ji Ye Jung

(Division of Pulmonology, Department of Internal Medicine, Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea)

27. Frequent Outpatient Visits Prevent Exacerbation of Chronic Obstructive Pulmonary Disease

Hye Jung Park^{1*} , Min Kwang Byun¹ , Taehee Kim¹ , Chin Kook Rhee² , Kyungjoo Kim² , Bo Yeon Kim³ , Sang In Ahn³ , Yon U Jo³ , Kwang-Ha Yoo¹

(¹Department of Internal Medicine, Gangnam Severance Hospital, Yonsei University

College of Medicine, Seoul, Republic of Korea , ²Department of Internal Medicine, Seoul

St Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic

of Korea , ³Health Insurance Review & Assessment Service, Seoul, Republic of Korea)

· **Subject Category : Critical Care Medicine**

10:30 ~ 12:00

28. Relationship between local ventilation distribution and Weaning failure in patient with diaphragmatic dysfunction on Electrical Impedance Tomography
Do Sik Moon* , Chae-Man Lim
(Department of Pulmonary and Critical Care Medicine, Asan Medical Center, Seoul Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea)
29. Usability of Diaphragm Ultrasonography in Lung Transplantation
Taehwa Kim^{1*} , Woo Hyun Cho¹ , Hye Ju Yeo¹ , Sungchul Huh² , Jin-Hee Noh¹ , Hyun-Yoon Ko²
(¹Department of Internal Medicine, Pusan National University Yangsan Hospital, Yangsan, Korea, Busan, Republic of Korea , ²Department Of Rehabilitation Medicine, Pusan National University Yangsan Hospital, Busan, Republic of Korea)
30. VEGF is a pathogenic contributor to acute lung injury through assembling NLRP3 inflammasome
So Ri Kim* , Hee Jung Kim , Yong Chul Lee , Yeong Hun Choe , Seung Yong Park , Jae Seok Jeong
(Division of Respiratory Medicine and Allergy, Department of Internal Medicine, Chonbuk National University Medical School, Jeonju, Republic of Korea)
31. Duvelisib (IPI-145), a PI3K- δ,γ inhibitor, attenuates LPS-induced lung injury through the regulation of MHC II-VEGFR2 epithelial expression
So Ri Kim*
(Division of Respiratory Medicine and Allergy, Department of Internal Medicine, Chonbuk National University Medical School, Jeonju, Republic of Korea)
32. **Withdrawn**
33. Novel Pendrin Inhibitor Attenuates Lipopolysaccharide-induced Acute Lung Injury in Mice
Eun Hye Lee^{1*} , Jae Young Choi² , Mi Hwa Shin¹ , Wan Namkung^{3,4} , Ji Soo Choi¹ , Su Hwan Lee¹ , Ah Young Leem¹ , Sang Hoon Lee¹ , Kyung Soo Chung¹ , Song Yee Kim¹ , Ji Ye Jung¹ , Young Ae Kang¹ , Young Sam Kim¹ , Joon Chang¹ , Moo Suk Park¹
(¹Division of Pulmonology, Department of Internal Medicine, Yonsei University College of Medicine, Seoul, Republic of Korea , ²Department of Otorhinolaryngology, Yonsei University College of Medicine, Seoul, Republic of Korea , ³College of Pharmacy, Yonsei Institute of Pharmaceutical Sciences, Yonsei University, Incheon, Republic of Korea , ⁴Department of Integrated OMICS for Biomedical Science, Yonsei University, Seoul, Republic of Korea)
34. Gene expression profile in ginsenosides Rb2 treated rats with ventilator induced lung injury

Hye Ju Yeo^{1*} , Woo Hyun Cho¹ , Doosoo Jeon¹ , Yunseong Kim¹ , Taehwa Kim¹ , Dohyung Kim² , Yun Hak Kim^{1,3}

(¹Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, Pusan National University Yangsan Hospital, Yangsan, Republic of Korea ,

²Department of Thoracic and Cardiovascular surgery, Pusan National University Yangsan Hospital, Yangsan, Republic of Korea , ³Department of Anatomy and Department of Biomedical Informatics, School of Medicine, Pusan National University, Yansan, Republic of Korea)

35. Mitochondria-associated NLRP3 inflammasome contributes to LPS-induced neutrophil-dominant acute lung injury

So Ri Kim* , Hee Jung Kim , Yong Chul Lee , Yeong Hun Choe , Seung Yong Park , Jae Seok Jeong

(Division of Respiratory Medicine and Allergy, Department of Internal Medicine, Chonbuk National University Medical School, Jeonju, Republic of Korea)

36. Effects of NecroX compound, a potent mitochondrial reactive oxygen species scavenger, on the mitochondrial expression of the catalytic subunit of PI3K- δ in LPS-instilled mice

Jae Seok Jeong^{1,2*} , Hee Jung Kim^{1,2} , So Ri Kim^{1,2} , Yong Chul Lee^{1,2}

(¹Department of Internal Medicine, Research Center for Pulmonary Disorders, Chonbuk National University Medical School, Jeonju, Republic of Korea , ²Research Institute of Clinical Medicine of Chonbuk National University-Biomedical Research Institute, Chonbuk National University Hospital, Jeonju, Republic of Korea)

13:30 ~ 15:00

37. Normal Body Temperature in Patients with Sepsis Who Present to Emergency

Department is Associated with Low Compliance Rate for Hour-1 Sepsis Bundle and Increased Hospital Mortality

Sunghoon Park^{1*} , Dong-Kyu Oh² , Kyeongman Jeon³ , Sang Bum Hong² , Eun Young Choi⁴ , Seok Chan Kim⁵ , Gil Myeong Seong⁶ , Jeongwon Heo⁷ , Youjin Chang⁸ , Kwack Won Gun⁹ , Byung Ju Kang¹⁰ , Chae-Man Lim²

(¹Department of Pulmonary, Allergy and Critical Care Medicine, Hallym University Sacred Heart Hospital, Anyang, Republic of Korea , ² Department of Pulmonary and Critical Care Medicine, Asan Medical Center, Seoul, Republic of Korea , ³ Department of Critical Care Medicine, Samsung Medical Center, Seoul, Republic of Korea , ⁴ Division of Respiratory and Critical Care Medicine, Yeongnam University Medical Center, Daegu, Republic of Korea , ⁵ Division of Pulmonary and Critical Care Medicine, Seoul St. Mary's Hospital, Seoul, Republic of Korea , ⁶Departments of Internal Medicine, Jeju National University Hospital, Jeju, Republic of Korea , ⁷ Department Of Internal Medicine, Kangwon National University Hospital, Chuncheon, Republic of Korea , ⁸Division of Pulmonary and Critical Care Medicine, Inje University Sanggye Paik Hospital, Seoul, Republic of Korea , ⁹ Division of Pulmonary, Allergy and Critical Care Medicine, Kyung Hee University Hospital, Seoul, Republic of Korea , ¹⁰ Department of Internal Medicine, Ulsan University Hospital, Ulsan, Republic of Korea)

38. Predictors of ICU outcomes in patients with refractory shock treated using vitamin C, hydrocortisone, and thiamine: a preliminary observational study
Won-Young Kim^{*}, Jae Chol Choi, Jong Wook Shin, Jae Yeol Kim, In Won Park, Byoung Whui Choi
(Department of Internal Medicine, Chung-Ang University College of Medicine, Seoul, Republic of Korea)
39. Plasma level of Fas ligand is associated with severity of sepsis
Hongseok Yoo^{1*}, Kyeongman Jeon², Jin Young Lee², June Sun Park², Gee Young Suh²
(¹Division Of Pulmonary and Critical Care Medicine, Department Of Medicine, Sungkyunkwan University School Of Medicine, Seoul, Republic of Korea, ²Department Of Critical Care Medicine, Sungkyunkwan University School Of Medicine, Seoul, Republic of Korea)
40. Monocyte distribution width: a marker for sepsis in emergency department
A-La Woo^{1*}, Sang-Bum Hong¹, Dong-Kyu Oh¹, Chan-Jung park², Won-Young Kim³, Jin-Won Huh¹, Chae-Man Lim¹, Youn-Suck Koh¹
(¹Department of Pulmonology and Critical Care Medicine, University of Ulsan College of Medicine and Asan Medical Center, Seoul, Republic of Korea, ²Department of Laboratory Medicine, University of Ulsan College of Medicine and Asan Medical Center, Seoul, Republic of Korea, ³Department of Emergency Medicine, University of Ulsan College of Medicine and Asan Medical Center, Seoul, Republic of Korea)
41. The dynamics of respiratory microbita during mechanical ventilation in patients with pneumonia
Ji Young Hong^{1,2*}, Youlim Kim¹, Chang Youl Lee¹, Myung Goo Lee¹
(¹Division of Pulmonary and Critical Care Medicine, Chuncheon Sacred Heart Hospital, Chuncheon, Republic of Korea, ²Institute of New frontier Research, Hallym University College of Medicine, Chuncheon, Republic of Korea)
42. Impact of respiratory virus in critically ill patients with hematologic malignancies
Jongmin Lee^{*}, Seok Chan Kim, Chin Kook Rhee, Jeong Uk Lim, Kyung Hoon Kim
(Division of Respiratory, Allergy and Critical Care Medicine, Department of Internal Medicine, Seoul St.Mary's Hospital, The Catholic University of Korea School of Medicine, Seoul, Republic of Korea)
43. Does the improvement of oxygenation predict survival in patients receiving prone positioning for acute respiratory distress syndrome?
Hong Yeul Lee^{*}, Jaeyoung Cho, Nakwon Kwak, Sun Mi Choi, Jinwoo Lee, Young Sik Park, Chang-Hoon Lee, Chul-Gyu Yoo, Young Whan Kim, Sang-Min Lee
(Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Seoul National University Hospital, Seoul, Republic of Korea)
44. Awake Extracorporeal Membrane Oxygenation as Bridging for Lung transplantation
Nam Eun Kim^{1*}, Su Hwan Lee¹, Song Yee Kim¹, Moo Suk Park¹, Young Sam Kim¹, Jin Gu Lee², Hyo Chae Park²
(¹Internal Medicine, Yonsei University College of Medicine, Seoul, Republic of Korea,

²Thoracic and Cardiovascular Surgery, Yonsei University College of Medicine, Seoul, Republic of Korea)

45. Acquired von Willebrand syndrome in patients with extracorporeal membrane oxygenation

Dong Kyu Oh^{1*}, You Na Oh¹, Pil-Je Kang², Sung-Ho Jung², Seongsoo Jang³, Jin Won Huh¹, Chae-Man Lim¹, Younsuck Koh¹, Sang-Bum Hong¹

(¹Department of Pulmonary and Critical Care Medicine, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea, ²Department of Thoracic and Cardiovascular Surgery, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea, ³Department of Laboratory Medicine, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea)

15:30 ~ 17:00

46. The clinical efficacy and prognostic factor of high-flow nasal cannula oxygen therapy in adults: A Korea prospective, multicenter study.

Kyeongman Jeon¹, Gee Young Suh¹, Won-Yeon Lee², Won-Il Choi³, Sunghoon Park⁴, Yun Su Sim⁵, Gil Myeong Seong⁶, Jick Hwan HA⁷, Jin Won Huh⁸, Youjin Chang⁹, JiSoo Park¹⁰, So Young Park^{11*}

(¹Department of Critical Care Medicine, Division of Pulmonary and Critical Care Medicine, Department of Medicine, Samsung Medical Center, Sungkyunkwan University, School of Medicine, Seoul, Republic of Korea, ²Division of Pulmonary, Allergy, and Critical Care Medicine, Yonsei University Wonju College of Medicine, Wonju, Republic of Korea, ³Department of Internal Medicine, Keimyung University Dongsan Hospital, Daegu, Republic of Korea, ⁴Department of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, Hallym University Sacred Heart Hospital, Gyeonggi, Republic of Korea, ⁵Department of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, Kangnam Sacred Heart Hospital, Hallym University College of Medicine, Seoul, Republic of Korea, ⁶Department of Internal Medicine, Jeju National University Hospital, Jeju National University School of Medicine, Jeju, Republic of Korea, ⁷Division of Pulmonology, Critical Care and Sleep Medicine, Department of Internal Medicine, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea, ⁸Department of Respiratory and Critical Care Medicine, University of Ulsan College of Medicine Asan Medical Center, Seoul, Republic of Korea, ⁹Division of Pulmonary and Critical care medicine, Department of Internal medicine, College of medicine Inje University, Sanggye Paik Hospital, Seoul, Republic of Korea, ¹⁰ Department of Pulmonology, Allergy and Critical Care Medicine, CHA University CHA Bundang Medical Center, Gyeonggi, Republic of Korea, ¹¹ Department of Pulmonary and Critical Care Medicine, Ewha Women's University Seoul Hospital, Seoul, Republic of Korea)

47. Effect of post-extubation high flow nasal cannula vs conventional oxygen therapy on reintubation in elderly patients; a retrospective propensity score matched cohort study

Ryoung-Eun Ko^{1*}, Kyeongman Jeon^{1,4}, Chul Park², Ji Myoung Nam³, Jin Hee Jung³, Hee Og Lee³, Sun Young Won³, Myeong Gyun Ko³, Keong Yoon Lee³, Soo Hyun Cho³

(¹Department of Critical Care Medicine, Samsung Medical Center, Sungkyunkwan

University School of Medicine, Seoul, Republic of Korea , ²Department of Pulmonology, Wonkwang Medical Hospital, Iksan, Republic of Korea , ³Intensive Care Unit Nursing Department, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea , ⁴Division of Pulmonary and Critical Care Medicine, Department of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea)

48. Risk factors of reintubation in patients receiving post-extubation nasal high flow therapy
Yoomi Yeo^{1*} , Tai Sun Park¹ , Min Ju Jo¹ , Ji-Yong Moon¹ , Tae-Hyung Kim¹ , Sung Jun Chung² , Hyun Lee² , Dong Won Park² , Sang Heon Kim² , Jang Won Sohn² , Ho Joo Yoon²
(¹Department of Internal Medicine, Hanyang University College of Medicine, Guri, Republic of Korea , ²Department of Internal Medicine, Hanyang University College of Medicine, Seoul, Republic of Korea)

49. A Validation of deep learning based early warning score to predict in-hospital cardiac arrest in patients admitted to general wards
Yeon-Joo Lee^{1*} , Kyung-Jae Cho^{2*} , Oyeon Kwon² , Hyunho Park² , Yeha Lee² , Joon-myung Kwon³ , Jinsik Park⁴ , Jung Soo Kim⁵ , Man-Jong Lee⁵ , Ah Jin Kim⁵ , Ryoung-Eun Ko⁶ , Kyeongman Jeon^{6,7} , You Hwan Jo⁸
(¹Division of Pulmonary and Critical Care Medicine, Seoul National University Bundang Hospital, Gyeonggi-do, Republic of Korea , ²Clinical Research, VUNO, Seoul, Republic of Korea , ³Department of Critical care and Emergency Medicine, Mediplex Sejong Hospital, Incheon, Republic of Korea , ⁴Division of Cardiology, Cardiovascular Center, Mediplex Sejong Hospital, Incheon, Republic of Korea , ⁵Division of Critical Care Medicine, Department of Hospital Medicine, Inha College of Medicine, Incheon, Republic of Korea , ⁶Department of Critical Care Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea , ⁷Division of Pulmonary and Critical Care Medicine, Department of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea , ⁸Emergency Medicine, Seoul National University Bundang Hospital, Gyeonggi-do, Republic of Korea)

50. Development of machine learning-based early warning system
Bo-gun Kho^{1,2*} , In-Jae Oh^{1,2} , Min-Seok Kim^{1,2} , Tae-Ok Kim^{1,2} , Cheol-Kyu Park^{1,2} , Young-Chul Kim^{1,2} , Soon Whan Kang³ , Jae Hoon Jung³ , Sung Hoon Baek³
(¹Lung and Esophageal Cancer Clinic, Chonnam National University Hwasun Hospital, Jeollanam-do, Republic of Korea , ²Department of Internal Medicine, Chonnam National University Medical School, Gwangju, Republic of Korea , ³AI, AIZEN Global CO., INC, Seoul, Republic of Korea)

51. Analysis of Safety Incidents in General Wards Patients Applying Home Mechanical Ventilator
Min Hye Seo^{1*} , Hyang Sook Kim¹ , Song Yee Han¹ , Ji Na Jung¹ , Eun Sun Ahn¹ , Kyung Soo Chung¹ , Mu Seok Park¹ , Kyung Won Kim² , Ah Young Leem¹ , So Young Park¹
(¹Internal Medicine-Pulmonary, Severance Hospital, Seoul, Republic of Korea , ²Pediatrics-Pulmonary, Severance Hospital, Seoul, Republic of Korea)

52. **Withdrawn**

53. Effect of early tracheostomy on clinical outcomes in patients with prolonged acute mechanical ventilation
Yewon Kang^{*}, Kwangha Lee, Eun-Jung Jo, Jung Seop Eom, Jeongha Mok, Mi-Hyun Kim, Ki Uk Kim, Hye-Kyung Park, Min Ki Lee
(Department of Internal Medicine, Pusan National University School of Medicine, Busan, Republic of Korea)

54. Clinical implication of ICU-acquired hyponatremia
Jae Kyeom Sim^{1*}, Kyeongman Jeon^{1,2}, Ryoung-Eun Ko¹
(¹Department Of Critical Care Medicine, Samsung Medical Center, Sungkyunkwan University School Of Medicine, Seoul, Republic of Korea, ²Division Of Pulmonary and Critical Care Medicine, Samsung Medical Center, Sungkyunkwan University School Of Medicine, Seoul, Republic of Korea)

- Jade Room -

• **Subject Category : Tuberculosis**

10:30 ~ 12:00

55. Quantitative computed tomography features associated with the prolonged infectiousness of cavitary pulmonary tuberculosis
Soohyun Bae^{1*}, Kwang Won Seo¹, Soyeoun Lim², Jong Joon Ahn¹, Yangjin Jegal¹, Seung Won Ra¹, Taehoon Lee¹, Byung Ju Kang¹, Jin Hyoung Kim¹
(¹Internal Medicine, Ulsan University Hospital, Ulsan, Republic of Korea, ²Radiology, University Hospital, Ulsan, Republic of Korea)

56. Treatment of patients with confirmed or suspicious tuberculous granulomas in resected lung nodule
Jiyeon Kang^{1*}, Kyungjong Lee¹, Jun Hyeok Lim², O Jung Kwon¹, Hojoong Kim¹, Byeong-Ho Jeong¹, Sang-Won Um¹, Man Pyo Chung¹, Kyeongman Jeon¹, Hye Yoon Park¹
(¹Division of Pulmonary and Critical Care Medicine, Samsung Medical Center, Seoul, Republic of Korea, ²Division Of Pulmonary and Critical Care Medicine, Inha University Hospital, Incheon, Republic of Korea)

57. Treatment outcomes of patients with isoniazid mono-resistant tuberculosis
Se Hyun Kwak^{*}, Joon Chang, Young Sam Kim, Moo Suk Park, Ji Ye Jung, Kyung Soo Chung, Song Yee Kim, Sang Hoon Lee, Su Hwan Lee, Ah Young Leem, EunHye Lee, Ji Soo Choi, Young Ae Kang
(Division Of Pulmonology, Department Of Internal Medicine, Yonsei University College Of Medicine, Seoul, Republic of Korea)

58. Tuberculosis Surveillance and Monitoring under the National Public-Private Mix Tuberculosis Control Project in South Korea between 2016 and 2017
Jinsoo Min^{1*}, Hyung Woo Kim¹, Yousang Ko², Jee Youn Oh³, Ji Young Kang¹, Ju Sang Kim¹, Sung- Soon Lee⁴, Jae Seuk Park⁵
(¹Department of Internal Medicine, The Catholic University Of Korea College Of

Medicine, Seoul, Republic of Korea , ²Department of Internal Medicine, Hallym University College Of Medicine, Chuncheon, Republic of Korea , ³Department of Internal Medicine, Korea University College Of Medicine, Seoul, Republic of Korea , ⁴Department of Internal Medicine, Inje University College Of Medicine, Busan, Republic of Korea , ⁵Department of Internal Medicine, Dankook University College Of Medicine, Cheonan, Republic of Korea)

59. Latent tuberculosis infection increases in kidney transplant recipients compared with transplant candidates: a neglected perspective in tuberculosis control
Chin-Chung Shu^{1*} , Meng-Kun Tsai² , Shu-Wei Lin³ , Chih-Yuan Lee² , Jann-Yuan Wang¹ , Chong-Jen Yu¹

(¹Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan , ²Surgery, National Taiwan University Hospital, Taipei, Taiwan , ³Pharmacy, National Taiwan University Hospital, Taipei, Taiwan)

60. Safety of latent tuberculosis infection treatment in elderly patients with immune-mediated inflammatory disease

Yeon Joo Kim* , Kyung-Wook Jo , Tae Sun Shim
(Pulmonology, Asan Medical Center, Seoul, Republic of Korea)

61. Toward understanding Tuberculosis in North Korea

Sungwhan Lee^{1*} , Changjoon Lee¹ , Heejin Kim² , Youngae Kang³
(¹College Of Medicine, Yonsei University, Seoul, Republic of Korea , ²Central training institute, Korean National Tuberculosis Association, Seoul, Republic of Korea , ³Division of Pulmonology, Department of Internal Medicine, Yonsei University College of Medicine, Seoul, Republic of Korea)

62. ***Withdrawn***

63. Cost effectiveness of using Medication Event Monitoring System for tuberculosis treatment in Morocco

In-Hwan Oh¹ , Jangmi Yang^{2*} , Nathan Green³ , Seup Park⁴ , Ilham Sentissi⁵ , Byungkwon Oh⁴ , Won-seok Park⁴ , Eunseong Paek⁴ , Yong Joon Park⁴ , Je-Hyung Kim⁶ , Chol Shin⁶ , Seung Heon Lee⁶
(¹Department of preventive medicine, college of medicine, Kyung Hee University, Seoul, Republic of Korea , ²Department of economic evaluation, National Evidence-based Healthcare Collaborating Agency, Seoul, Republic of Korea , ³Department of Infectious Disease Epidemiology, School of Public Health, Faculty of Medicine, Imperial College London, London, United Kingdom , ⁴Department of Healthcare & Medical Support, Global Care International, Seoul, Republic of Korea , ⁵Chief Public Health Service and epidemiological surveillance, Moroccan League Against Tuberculosis, Rabat, Morocco , ⁶Division of Pulmonary, Sleep, and Critical Care Medicine, Department of Internal Medicine, , Korea University Ansan Hospital, Korea University College of Medicine, Ansan, Republic of Korea)

· **Subject Category : Miscellaneous**

13:30 ~ 15:00

64. What is the optimal oxygen supplementation needed to avoid tissue hypoxia in patients with pulmonary hypertension ?

Rika Suda*

(Department Of Respiriology, Chiba University Graduate School Of Medicine, Chiba, Japan)

65. Association of time-to-treatment with outcomes of Pneumocystis pneumonia with respiratory failure in HIV-negative patients

Ryoung-Eun Ko^{1*}, Kyeongman Jeon^{1,3}, Soo Jin Na¹, Kyungmin Huh², Gee Young Suh^{1,3}

(¹Department of Critical Care Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea, ²Division of Infectious Diseases, Department of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea, ³Division of Pulmonary and Critical Care Medicine, Department of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea)

66. Fabrication and Characterization of PLGA loaded nanoparticles of Umbelliferone β -D-galactopyranoside in the treatment of Lipopolysaccharide-Induced Acute Lung Inflammation via PI3K/Akt/Mtor pathway

D Chauhan^{1*}, V Kumar²

(¹Applied, UOA, Prayagraj, India, ²Pharmacy, SIHAS, Prayagraj, India)

67. PI3K-delta signaling induces bronchial epithelial damage through the release of neutrophil elastase and histone protein 1 in LPS-induced acute lung injury

So Ri Kim*, Hee Jung Kim, Yong Chul Lee, Yeong Hun Choe, Seung Yong Park, Jae Seok Jeong

(Division of Respiratory Medicine and Allergy, Department of Internal Medicine, Chonbuk National University Medical School, Jeonju, Republic of Korea)

68. Prevention of Nosocomial Infection using Oral Chlorhexidine among Patients undergoing Cardiac Surgery: A Meta-Analysis

Martin Kristoffer Ogbac*, Jose Edzel Tamayo

(Section Of Pulmonology, Perpetual Help Medical Center - Las Piñas, Las Piñas, Philippines)

69. Social Demographic Factors and Consumer Behaviour of Smokers in Indonesia

Salman Samir*, Basri Bado

(Economic Development, State University Of Makassar, Makassar, Indonesia)

70. Adolescence, Cigarette, and Problem of Health in Indonesia : A Critical Sociological Perspective

Mahyuddin Mahyuddin^{1*}, Nuraliah², Kadriah³

(¹Sociology Department, State Islamic Institute of Parepare, South Sulawesi, Indonesia,

²Faculty Of Health, West Sulawesi University, West Sulawesi, Indonesia , ³Public Health Department, Al Asyariah Mandar University, West Sulawesi, Indonesia)

71. Association between the Frequency of Smoker's Cigarette Consumption in the Home and Urine Cotinine Concentrate among Pregnancy Women in Thailand

Paithoon Sonthon^{1*} , Aumporn Sonthon²

(¹Faculty Of Science and Technology, Phetchabun Rajabhat University, Phetchabun, Thailand , ²Phetchabun Hospital, Ministry of Public Health, Phetchabun, Thailand)

72. Cystic fibrosis gene therapy, novel strategies for improving long-term therapeutic efficacy.

Juliette Delhove ^{1,2,3*} , Patricia Cmielewski^{1,2,3} , Nigel Farrow^{1,2,3} , Chantelle

Carpentieri^{1,2,3} , Alexandra Sarah Ann Mc Carron^{1,2,3} , Nicole Reyne^{1,2,3} , Nathan Rout-Pitt^{1,2,3} , Bernadette Boog^{1,2,3} , Martin Donnelley^{1,2,3} , David Parsons^{1,2,3}

(¹Adelaide Medical School, University Of Adelaide, Adelaide, Australia , ²Robinson Research Institute, University Of Adelaide, Adelaide, Australia , ³Respiratory and Sleep Medicine , Women's and Children's Hospital, Adelaide, Australia)

• **Subject Category : Tuberculosis**

15:30 ~ 17:00

73. Investigation of epidemiological links between Mycobacterium tuberculosis isolates from South Korea using Whole Genome Sequencing

Seung Heon Lee^{1*} , Giovanni Satta² , Adam Witney³ , Elena Ferran² , Sungweon Ryu⁴ , Hyung Seok Kang⁴ , Timothy McHugh⁵

(¹Division of Pulmonary, Sleep, and Critical Care Medicine, Department of Internal Medicine, Korea University Ansan Hospital, Korea University College of Medicine, Ansan, Republic of Korea , ²Division Of Infectious Disease, Imperial College Healthcare NHS Trust, London, United Kingdom , ³Institute for Infection and Immunity, St. George's University of London, London, United Kingdom , ⁴Department of Chest Medicine, Masan National Tuberculosis Hospital, Masan, Republic of Korea , ⁵Centre for Clinical Microbiology, Department of Infection, University College London, London, United Kingdom)

74. *Withdrawn*

75. The clinical significance of programmed death-1, regulatory T cells and myeloid derived suppressor cells in patients with nontuberculous mycobacteria-lung disease

Chin-Chung Shu*

(Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan)

76. Impact of body mass index on development of nontuberculous mycobacterial pulmonary disease

Jin Hwa Song^{1*} , Jae-Joon Yim³ , Bong Seong Kim² , Kyung-Do Han²

(¹Department of Internal Medicine, Veterans Health Service Medical Center, Seoul,

Republic of Korea , ²Department of Medical Statistics, Catholic University College of Medicine, Seoul, Republic of Korea , ³Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Seoul National College of Medicine, Seoul, Republic of Korea)

77. Association between low fat mass and non-tuberculous mycobacteria infection in patients with bronchiectasis
Sung Yoon Lim^{*} , Jae Ho Lee , Yeon Joo Lee , Young-Jae Cho , Ho Il Yoon , Choon-Taek Lee (Department of Internal Medicine, Seoul National University Bundang Hospital, Seongnam-si, Republic of Korea)
78. Nontuberculous mycobacterial infection after lung transplantation
Youngmok Park^{1*} , Song Yee Kim¹ , Moo Suk Park¹ , Su Jin Jeong¹ , Jin Gu Lee² , Hyo Chae Paik² , Young Ae Kang¹
(¹Internal Medicine, Yonsei University College Of Medicine, Seoul, Republic of Korea , ²Thoracic and Cardiovascular Surgery, Yonsei University College Of Medicine, Seoul, Republic of Korea)
79. Characteristics of Bronchiectasis in Patients with Previous Tuberculosis: A National Database Study in Korea
Hayoung Choi^{1*} , Yun Su Sim¹ , Tae Rim Shin¹ , Dong-Gyu Kim¹ , Dong Won Park² , Tai Sun Park² , Ji-Yong Moon² , Sang-Heon Kim² , Tae-Hyung Kim² , Jang Won Sohn² , Ho Joo Yoon² , Hyun Lee²
(¹Division of Pulmonary, Allergy, and Critical Care Medicine, Department of Internal Medicine, Hallym University Kangnam Sacred Heart Hospital, Seoul, Republic of Korea , ²Division of Pulmonary Medicine and Allergy, Department of Internal Medicine, Hanyang University College of Medicine, Seoul, Republic of Korea)
80. Identification of Novel Compound Heterozygous Variants of DYX1C1 in Patients with Familial Bronchiectasis Suspected of Primary Ciliary Dyskinesia
Jung-Ki Yoon^{1*} , Hye-Kyeong Park² , Jong-Il Kim³ , Jae-Joon Yim¹
(¹Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Republic of Korea , ²Department of Internal Medicine, Inje University Ilsan Paik Hospital, Inje University College of Medicine, Goyang, Republic of Korea , ³Department of Biomedical Sciences, Seoul National University Graduate School, Seoul, Republic of Korea)
81. Clinical characteristics of bronchiectasis patients with previous pulmonary tuberculosis: KMBARC Registry Data
Hayoung Choi^{1*} , Hyun Lee² , Yeon-Mok Oh³ , Sei Won Lee³ , Yun Su Sim¹ , Dong-Gyu Kim¹ , Hyun Kuk Kim⁴ , Jae Ha Lee⁴ , Seung Won Ra⁵ , on behalf of the KMBARC ¹
(¹Division of Pulmonary, Allergy, and Critical Care Medicine, Department of Internal Medicine, Hallym University Kangnam Sacred Heart Hospital, Seoul, Republic of Korea , ²Division of Pulmonary Medicine and Allergy, Department of Internal Medicine, Hanyang University College of Medicine, Seoul, Republic of Korea , ³Department of Pulmonary and Critical Care Medicine, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea , ⁴Division of Pulmonary and Critical Care Medicine,

Department of Internal Medicine, Haeundae Paik Hospital, Inje University College of Medicine, Busan, Republic of Korea , ⁵Division of Pulmonary Medicine, Department of Internal Medicine, Ulsan University Hospital, University of Ulsan College of Medicine, Ulsan, Republic of Korea)

Friday, November 8th, 2019

- Pearl Room -

· **Subject Category : COPD**

10:30 ~ 12:00

82. Sarcopenia is an independent risk factor for NAFLD in COPD: Nationwide surveys (Korean National Health and Nutrition Examination Survey 2008-2011)
June Hong Ahn* , Kwan Ho Lee , Jin Hong Chung , Kyeong-Cheol Shin , Eun Young Choi , Hyun Jung Jin , Jong Geol Jang , Kyung Soo Hong , Young Seok Lee , Euna Lee
(Department of Internal Medicine, Yeungnam University College Of Medicine, Daegu, Republic of Korea)
83. Wearable and self-management technology to intensively monitoring patients with chronic obstructive pulmonary disease: A new tool to improve life.
Manvendra Singh^{1*} , Deepika Singh^{2,2}
(¹Department Of Computer Sciences, HMFA-MIET, AKTU, Lucknow, India , ²Department Of Pharmaceutical Sciences, SHUATS, Allahabad, India)
84. Interstitial lung abnormalities and clinical course in patients with COPD
Tasseung Lee^{1*} , Jung-Kyu Lee³
(¹Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Seoul National University Hospital, Seoul, Republic of Korea , ²Department of Radiology, Seoul Metropolitan Government-Seoul National University Boramae Medical Center, Seoul, Republic of Korea , ³Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Seoul Metropolitan Government-Seoul National University Boramae Medical Center, Seoul, Republic of Korea)
85. Adverse outcomes after non-thoracic surgery in patients with chronic obstructive pulmonary diseases
Chien-Chang Liao* , Ta-Liang Chen
(Department Of Anesthesiology, Taipei Medical University Hospital, Taipei, Taiwan)
86. COPD and lung cancer incidence in never smokers: A cohort study
Sun Hye Shin^{1*} , Hye Yun Park¹ , Danbee Kang^{2,3} , Kwang Ha Yoo⁴ , Chin Kook Rhee⁵ , Gee Young Suh¹ , Hojoong Kim¹ , Young Mog Shim⁶ , Juhee Cho^{2,3} , O Jung Kwon¹
(¹Division of Pulmonary and Critical Care Medicine, Department of Medicine, Samsung Medical Center, Seoul, Republic of Korea , ²Center for Clinical Epidemiology, Samsung Medical Center, Seoul, Republic of Korea , ³Department of Clinical Research Design and

Evaluation, SAIHST, Sungkyunkwan University, Seoul, Republic of Korea , ⁴Department of Internal Medicine, Konkuk University School Of Medicine, Seoul, Republic of Korea , ⁵Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, Seoul St Mary's Hospital, Seoul, Republic of Korea , ⁶Department of Thoracic and Cardiovascular Surgery, Samsung Medical Center, Seoul, Republic of Korea)

87. Structural brain change and cognitive dysfunction in COPD patients
Kyung-Il Han^{1*} , Yeonkyung Park³ , Tai Sun Park^{1,2} , Sung-Ho Jang⁴ , Joon-Ho Choi⁵ , Dong Woo Park⁶ , Woo-Suk Tae⁷ , Tae-Hyung Kim^{1,2}

(¹Department Of Internal Medicine, Hanyang University College Of Medicine, Seoul, Republic of Korea , ²Division Of Pulmonary and Critical Care Medicine, Hanyang University Guri Hospital, Guri, Republic of Korea , ³Division Of Pulmonary and Critical Care Medicine, VHS Medical Center, Seoul, Republic of Korea , ⁴Department Of Rehabilitation, Hanyang University Guri Hospital, Guri, Republic of Korea , ⁵Department Of Neuropsychiatry, Hanyang University Guri Hospital, Guri, Republic of Korea , ⁶Department Of Radiology, Hanyang University Guri Hospital, Guri, Republic of Korea , ⁷Brain Convergence Research Center, Medical Research Center, Anam Hospital, Korea University Medical Center, Seoul, Republic of Korea)

88. Relationship between Lung Function and Body Composition in Korea: a community-based cohort study

Jiyoung Kim* , Young Sam Kim , Youngmok Park
(Department Of Internal Medicine, Yonsei University College Of Medicine, Seoul, Republic of Korea)

89. Diabetes risk in patients with chronic obstructive pulmonary disease: a retrospective cohort study

Yi-Chun Chou^{1*} , Ta-Liang Chen² , Chien-Chang Liao²
(¹Department Of Physical Medicine and Rehabilitation, China Medical University Hospital, Taichung, Taiwan , ²Department Of Anesthesiology, Taipei Medical University Hospital, Taipei, Taiwan)

90. FVC changes related with improvement of symptoms in Asthma COPD Overlap

Tai Joon An* , Hyoung Kyu Yoon
(Internal Medicine, Catholic University Of Korea, Seoul, Republic of Korea)

• **Subject Category : Asthma**

13:30 ~ 15:00

91. Mortality and Causes of death of patients with asthma

Choon-geun Lee* , Jaeyoung Cho , Nak-Won Kwak , Sun-Mi Choi , Jinwoo Lee , Young-Sik Park , Sang-Min Lee , Chul-Gyu Yoo , Young Hwan Kim , Chang-Hoon Lee
(Division Of Pulmonary and Critical Care Medicine, Department Of Internal Medicine, Seoul National University Hospital, Seoul, Republic of Korea)

92. Mortality and morbidity of childhood asthma: a nationwide study in Korea
Haerin Jang^{1*}, Kyung Won Kim¹, In Suk Sol^{1,2}, Juhwan Noh³, Yoon Hee Kim¹, Changsoo Kim³, Myung Hyun Sohn¹
(¹Department of Pediatrics, Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea, ²Department of Pediatrics, Hallym University Chuncheon Sacred Heart Hospital, Chuncheon, Republic of Korea, ³Department of Preventive Medicine, Yonsei University College of Medicine, Seoul, Republic of Korea)
93. Cause of Mortality in Patients with Corticosteroid-dependent Asthma
Hyun Lee^{1*}, Jiin Ryu², Eunwoo Nam², Min Ju Jo¹, Sung Jun Chung¹, Yoomi Yeo¹, Dong Won Park¹, Tai Sun Park¹, Ji-Yong Moon¹, Tae-Hyung Kim¹, Jang Won Sohn¹, Sang-Heon Kim¹, Ho Joo Yoon¹
(¹Department Of Internal Medicine, Hanyang University College Of Medicine, Seoul, Republic of Korea, ²Biostatistical Consulting and Research Lab, Medical Research Collaborating Center, Hanyang University, Seoul, Republic of Korea)
94. Geo-informatics Approach for Evaluating Asthma triggers in Karachi Pakistan: A Perspective from Developing World
Imran Khan*
(Department of Geography, University Of Karachi, Karachi, Pakistan)
95. Asthma and indoor environment in developing countries : the case study of Nepal
Hari Dhakal*
(Patan Multiple Campus, Tribhuvan University, Lalitpur, Nepal)
96. Association between the fatty liver index and the incidence of newly onset adult asthma incidence: Result from the National Health Insurance Service-National Sample Cohort database in Korea
Sun-Young Yoon^{1*}, Jae-Hyung Roh⁴, Hanbyul Lee², Da Hyun Kang¹, Chaeuk Chung¹, Ju-Ock Kim¹, Sung Soo Jung¹, Dong Il Park¹, Sun Young Jung¹, Jeong Eun Lee¹, Lee Song-I³
(¹Division of Pulmonology, Department of Internal Medicine, Chungnam National University, Chungnam National University Hospital, Daejeon, Republic of Korea, ²Department of Statistics, Kyungpook National University, Daegu, Republic of Korea, ³Department of Pulmonary and Critical care Medicine, Chungnam National University Hospital, Daejeon, Republic of Korea, ⁴Department of Cardiology in Internal Medicine, School of Medicine, Chungnam National University, Chungnam National University Hospital, Daejeon, Republic of Korea)
97. Positive association exists between abdominal obesity and asthma: Evidence from a meta-analysis of cohort studies
Md Salman Hussain^{1*}, Abul Kalam Najmi²
(¹Department Of Pharmaceutical Medicine, Jamia Hamdard, New Delhi, India, ²Department Of Pharmacology, Jamia Hamdard, New Delhi, India)
98. Clinical characteristics of overweight asthma patients in systemic inflammation and airflow obstruction.

Hwa Young Lee^{*}, Ji Young Kang, Young Kyoon Kim, Sook Young Lee
(Allergy and Pulmonology, Seoul St Mary's Hospital, Seoul, Republic of Korea)

99. Acid-suppressive medication, a possible risk factor for asthma

Yasuhiro Tomita^{1,2*}, Yuma Fukutomi², Mari Irie³, Kazuhiro Azekawa⁴, Yoichi Nakamura⁵, Chiharu Okada⁶, Terufumi Shimoda⁷, Miku Sano¹, Katsuyuki Kojima¹, Yoshinori Hasegawa⁸, Masami Taniguchi²

(¹Respiratory Medicine, Tokai Central Hospital, Kakamigahara, Japan, ²Clinical Research Center for Allergy and Rheumatology, National Hospital Organization Sagamihara National Hospital, Sagamihara, Japan, ³Research and Development Department, Nihon Medical Insurance Institute Ltd., Tokyo, Japan, ⁴Medical Information Development Department, MHI Co., Ltd., Tokyo, Japan, ⁵Medical Center for Allergic and Immune Diseases, Yokohama City Minato Red Cross Hospital, Yokohama, Japan, ⁶Headquarters, National Hospital Organization, Tokyo, Japan, ⁷Department of Internal Medicine, SanRemo Rehabilitation Hospital, Sasebo, Japan, ⁸Department of Respiratory Medicine, Nagoya University Graduate School of Medicine, Nagoya, Japan)

15:30 ~ 17:00

100. Development of an accurate operational definition for asthma using decision tree model

Woo Ho Ban^{*}, Chin Kook Rhee, Jongmin Lee, Sang Haak Lee

(Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, The Catholic University of Korea, Seoul, Republic of Korea)

101. Relationship of the Arabic Version of Asthma Control Test (ACT) with Ventilatory Function Tests and Exhaled Nitric Oxide in Adult Asthmatics

Syed Habib^{*}

(Physiology, King Saud University, Riyadh, Saudi Arabia)

102. Application of impulse oscillometry to adult asthma with preserved lung function
Sung-Ryeol Kim^{1*}, Kyungchul Kim¹, Jinyeong Moon², Sang Chul Lee³, Kyung Hee Park¹, Jae-Hyun Lee¹, Jung-Won Park¹

(¹Division of Allergy and Immunology, Department of Internal Medicine, Yonsei University College of Medicine, Seoul, Republic of Korea, ²FAMU-FSU College of Engineering, Florida State University, Tallahassee, Florida, United States, ³Division of Pulmonology, Department of Internal Medicine, National Health Insurance Service Ilsan Hospital, Goyang, Republic of Korea)

103. **Withdrawn**

104. Meta-analysis of Real-Life Studies Comparing Inhaled Corticosteroids with Formoterol versus other Reliever Therapies for Asthma Control

Martin Kristoffer E. Ogbac^{*}, Rodolfo V. Dizon, Jr.

(Section Of Pulmonology, Perpetual Help Medical Center - Las Piñas, Las Piñas, Philippines)

105. Effects of PI3K pan-inhibitors and PI3K- δ selective inhibitors on the inflammatory cells and inflammatory mediators in allergic lung inflammation: systematic review and meta-analysis
Jong Seung Kim^{1,2*}, Yong Chul Lee^{2,3}, Jae Seok Jeong^{2,3}, So Ri Kim^{2,3}
(¹Department of Otorhinolaryngology-Head and Neck Surgery, Chonbuk National University Medical School, Jeonju, Republic of Korea, ²Research Institute of Clinical Medicine, Chonbuk National University-Biomedical Research Institute of Chonbuk National University Hospital, Jeonju, Republic of Korea, ³Department of Internal Medicine, Research Center for Pulmonary Disorders, Chonbuk National University Medical School, Jeonju, Republic of Korea)
106. Der-p1 protein promotes type 2-epithelial response and mucus production via PI3K-delta signaling in HDM-induced asthma
So Ri Kim*, Hae Jin Park, Yong Chul Lee, Kyeong Hwa Park, Yeong Hun Choe, Seung Yong Park, Jae Seok Jeong
(Division of Respiratory Medicine and Allergy, Department of Internal Medicine, Chonbuk National University Medical School, Jeonju, Republic of Korea)
107. SOX18 as a potential biomarker in asthma
Jisu Hong*, An-Soo Jang, Pureun-Haneul Lee, Yun-Ki Lee, June-Hyuck Lee, Sung-Woo Park
(Department of Internal Medicine, Soonchunhyang University Bucheon Hospital, Bucheon, Republic of Korea)
108. The herbal extract mixture of Hedera helix and Coptidis rhizoma attenuates both eosinophilic and neutrophilic severe asthmatic features in mice
So Ri Kim*, Kyeong Hwa Park, Yong Chul Lee, Hae Jin Park, Yeong Hun Choe, Seung Yong Park, Jae Seok Jeong
(Division of Respiratory Medicine and Allergy, Department of Internal Medicine, Chonbuk National University Medical School, Jeonju, Republic of Korea)

- Ruby Room -

• **Subject Category : Lung Cancer**

10:30 ~ 12:00

109. Comparison of clinical characteristics between never-smokers and ever-smokers in female lung cancer patents: Evaluation of Korean Central Cancer Registry Data
Jeong Uk Lim^{1*}, Chan Kwon Park², Solji Han³, Chang Min Choi⁴, Chi Young Jung⁵, Deog Gon Cho⁶, Jae Hyun Jeon⁷, Jeong Eun Lee⁸, Jin Seok Ahn⁹, Yeongdae Kim¹⁰, Yoo-Duk Choi¹¹, Yang-Gun Suh¹², Jung-Eun Kim¹³, Boram Lee¹³, Young-Joo Won¹³, Young-Chul Kim¹⁴, Seung Joon Kim^{1,15}
(¹Division of Pulmonary Allergy and Critical Care Medicine, Department of Internal Medicine, Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea, ²Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, Yeouido St. Mary's Hospital, College of

Medicine, The Catholic University of Korea, Seoul, Republic of Korea , ³ Department of Applied Statistics, Yonsei University, Seoul, Republic of Korea , ⁴ Department of Pulmonary and Critical Care Medicine, Asan Medical Center, College of Medicine, University of Ulsan, Seoul, Republic of Korea , ⁵Department of Internal Medicine, Daegu Catholic University School of Medicine, Daegu, Republic of Korea , ⁶Department of Thoracic & Cardiovascular Surgery, St. Vincent's Hospital, College of Medicine, The Catholic University of Korea, Suwon, Republic of Korea , ⁷ Center for Lung Cancer, National Cancer Center, Goyang, Republic of Korea , ⁸Division of Pulmonology Department of Internal Medicine, Chungnam National University, Daejeon, Republic of Korea , ⁹ Department of Medicine, Samsung Medical Center, Sungkyunkwan University, Seoul, Republic of Korea , ¹⁰ Department of Cardiothoracic Surgery, Pusan National University Hospital, Pusan, Republic of Korea , ¹¹ Department Of Pathology, Chonnam National University, Hwasun Hospital, Hwasun, Republic of Korea , ¹² Proton Therapy Center, Research Institute and Hospital, National Cancer Center, Goyang, Republic of Korea , ¹³ Cancer Registration and Statistics Branch, ational Cancer Center, Goyang, Republic of Korea , ¹⁴ Department of Internal Medicine, Chonnam National University, Hwasun Hospital, Hwasun, Republic of Korea , ¹⁵ Cancer Research Institute, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea)

110. Applying the lung cancer screening eligibility criteria to the real lung cancer multicenter cohort: Impact of smoking amount on clinicopathological features and survival in NSCLC

Woo Ho Ban^{*} , Sung Kyoung Kim , Chang Dong Yeo , Hye Seon Kang , Chan Kwon Park , Ju Sang Kim , Jin Woo Kim , Seung Joon Kim , Sang Haak Lee
(Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, The Catholic University of Korea, Seoul, Republic of Korea)

111. Treatment decision and survival outcomes in NSCLC patients over 80 years of age

Da Hyun Kang^{*} , Chaeuk Chung , Dongil Park , Ju Ock Kim , Sung Soo Jung , Hee Sun Park , Jeong Eun Lee
(Department of Internal Medicine, Chungnam National University College Of Medicine, Daejeon, Republic of Korea)

112. Lower lobe location is associated with worse outcomes in non-small cell lung cancer

Hyun Woo Lee^{*} , Young Sik Park , Jaeyoung Cho , Nakwon Kwak , Sun Mi Choi , Sang-Min Lee , Chul-Gyu Yoo , Young Whan Kim , Chang-Hoon
(Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Republic of Korea)

113. Regional emphysema score is associated with tumor location and poor prognosis

Jung Won Heo^{1*} , Hye Seon Kang¹ , Chan Kwon Park³ , Sung Kyoung Kim⁴ , Ju Sang Kim⁵ , Jin Woo Kim⁶ , Seung Joon Kim^{7,8} , Sang Haak Lee^{2,8} , Chang Dong Yeo²
(¹Division of Pulmonary, Critical Care and Sleep Medicine, Department of Internal Medicine, Bucheon St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea , ²Division of Pulmonary, Critical Care and Sleep Medicine, Department of Internal Medicine, Eunpyeong St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea , ³Division of

Pulmonary, Critical Care and Sleep Medicine, Department of Internal Medicine, Yeouido St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea , ⁴Division of Pulmonary, Critical Care and Sleep Medicine, Department of Internal Medicine, St. Vincent's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea , ⁵Division of Pulmonary, Critical Care and Sleep Medicine, Department of Internal Medicine, Incheon St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea , ⁶Division of Pulmonary, Critical Care and Sleep Medicine, Department of Internal Medicine, Uijeongbu St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea , ⁷Division of Pulmonary, Critical Care and Sleep Medicine, Department of Internal Medicine, Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea , ⁸Cancer Research Institute, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea)

114. Prognosis of lymphangitic tumor spread detected on chest CT scan during staging evaluation in patients with non-small cell lung cancer
Yunjoo Im^{*} , Byeong-Ho Jeong , Kyungjong Lee , Hojoong Kim , O Jung Kwon , Sang-Won Um
(Division of Pulmonary and Critical Care Medicine, Department of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea)
115. Impact of idiopathic pulmonary fibrosis on recurrence after surgical treatment for stage I–III non-small cell lung cancer
Myung Jin Song^{1*} , Jong Sun Park² , Sang Hoon Lee¹
(¹Department of Internal Medicine, Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea , ²Department of Internal Medicine, Seoul National University Bundang Hospital, Seoul, Republic of Korea)
116. Association between interstitial lung abnormalities (iLA) and overall survival in patients with small cell lung cancer (SCLC)
Eung gu Lee^{1*} , Hye Seon Kang¹ , Bo Mi Gil² , Ah Young Shin¹ , Chang Dong Yeo¹ , Ju Sang Kim¹ , Yong Hyun Kim¹ , Sang Haak Lee¹
(¹Division of Pulmonology and Critical Care Medicine, Department of Internal Medicine, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea , ²Department of Radiology, Bucheon St Mary's Hospital, College of Medicine, The Catholic University of Korea, Bucheon, Republic of Korea)
117. Combined pulmonary fibrosis and emphysema and idiopathic pulmonary fibrosis in non-small cell lung cancer: Impact on survival and acute exacerbation
Sung Woo Moon^{1*} , Sang Hoon Lee¹ , Ho Il Yoon² , Moo Suk Park¹ , Young Sam Kim¹ , Joon Jang¹ , Jae Ho Lee¹ , Choon Taek Lee¹ , Jin Haeng Jung³ , Hyo Sup Shim⁴
(¹Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea , ²Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, National University College of Medicine, Seoul National University Bundang Hospital,

Seongnam, Republic of Korea , ³Department of Radiology, Seoul national University Bundang Hospital, Seongnam, Republic of Korea , ⁴Department of Pathology, Yonsei University College of Medicine, Seoul, Republic of Korea)

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118. Usefulness of adjuvant chemotherapy in Stage IB NSCLC with high risk factor
Juwhan Choi^{1*} , Jee Youn Oh¹ , Young Seok Lee¹ , Kyung Hoon Min¹ , Jae Jeong Shim¹ , Sue In Choi² , Dong Won Park³ , Chan Kwon Park⁴ , Eun Joo Kang⁵ , Hwan Seok Yong⁶ , Bong Kyung Shin⁷ , Hyun Koo Kim⁸ , Sung Yong Lee¹
(¹Division of Pulmonary, Allergy, and Critical Care Medicine, Department of Internal Medicine, Korea University Guro Hospital, Korea University College of Medicine, Seoul, Republic of Korea , ²Division of Pulmonology, Allergy and Critical Care Medicine, Department of Internal Medicine, Korea University College of Medicine, Seoul, Republic of Korea , ³Department of Internal Medicine, Hanyang University College of Medicine, Seoul, Republic of Korea , ⁴Division of pulmonology, Allergy and Critical Care Medicine, Department of Internal Medicine, Yeouido St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea , ⁵Division of Medical Oncology, Department of Internal Medicine, Korea University Guro Hospital, Korea University College of Medicine, Seoul, Republic of Korea , ⁶Department of Radiology, Korea University Guro Hospital, Korea University College of Medicine, Seoul, Republic of Korea , ⁷Department of Pathology, Korea University Guro Hospital, Korea University College of Medicine, Seoul, Republic of Korea , ⁸Department of Thoracic and Cardiovascular Surgery, Korea University Guro Hospital, Korea University College of Medicine, Seoul, Republic of Korea)
119. Clinical characteristics of post-operative N2 nodal upstaging in Non-small cell lung cancer
Sun Young Choi* , Sung Yoon Lim , Choon-Taek Lee , Jae Ho Lee , Ho Il Yoon , Young-Jae Cho , Jong Sun Park , Yeon Joo Lee , Eun Sun Kim , Byung Soo Kwon , Yung Hee Lee , Yeon Wook Kim , Yoon Young Shin
(Pulmonary and Critical Care, Seoul National University Bundang Hospital, Gyeonggi-Do, Republic of Korea)
120. Presence of mEGFR ctDNA predicts a poor clinical outcome in lung adenocarcinoma
Taehee Kim , Yong Jun Choi* , Eun Young Kim , Sanghoon Lee , Do Sun Kwon , Arum Kim , Yoon Soo Chang
(Internal Medicine, Yonsei University College of Medicine, Seoul, Republic of Korea)
121. Outcomes according to initial and subsequent therapies following intracranial progression in patients with EGFR-mutant lung cancer and brain metastasis
Dong-gon Hyun^{1*} , Chang-Min Choi¹ , Dae Ho Lee² , Sang-We Kim² , Shinkyoo Yoon² , Woo Sung Kim¹ , Wonjun Ji¹ , Jae Cheol Lee²
(¹Department of Pulmonary and Critical Care Medicine, Asan Medical Center, Seoul, Republic of Korea , ²Department of Oncology, Asan Medical Center, Seoul, Republic of Korea)

122. Clinical characteristics and outcomes of lung adenocarcinoma with solid or micropapillary subtypes
Sun Ha Choi^{1,2*}, Jae Yong Park^{1,2}, Yong Seon Yoon¹, Hee Won Kwon¹, Ji Eun Park¹, Sun Ji Park¹, Yong Hoon Lee¹, Hyewon Seo¹, Seung Soo Yoo^{1,2}, Shin Yup Lee^{1,2}, Jaehee Lee¹, Seung Ick Cha¹, Chang Ho Kim¹, Jae Yong Park^{1,2}
(¹Internal Medicine, School of Medicine, Kyungpook National University, Daegu, Republic of Korea, ²Lung Cancer Center, Kyungpook National University Chilgok Hospital, Daegu, Republic of Korea;,, Daegu, Republic of Korea)
123. Time interval from chemotherapy to immunotherapy influences to efficacy of immune checkpoint inhibitors (ICIs)
Da Hyun Kang^{*}, Chaeuk Chung, Ju Ock Kim, Sung Soo Jung, Hee Sun Park, Dongil Park, Jeong Eun Lee
(Department Of Internal Medicine, Chungnam National University College Of Medicine, Daejeon, Republic of Korea)
124. Application of Tumor Kinetics for Evaluation of Hyperprogression in Immune Checkpoint Inhibitor Treatment for Non-small Cell Lung Cancer
Cheol-Kyu Park^{1,2*}, Joon-Young Yoon^{1,2}, Ji-Eun Kim¹, Min-Seok Kim¹, Bo-Geon Koh^{1,2}, Ha-Young Park¹, Tae-Ok Kim¹, Hong-Joon Shin¹, Yong-Soo Kwon¹, In-Jae Oh^{1,2}, Yu-Il Kim¹, Sung-Chul Lim¹, Young-Chul Kim^{1,2}
(¹Department Of Internal Medicine, Chonnam National University Medical School, Hwasun, Jeonnam, Republic of Korea, ²Lung Cancer Clinic, Chonnam National University Hwasun Hospital, Jeonnam, Republic of Korea)
125. Clinical outcomes and the role of bronchoscopic intervention in patients with primary pulmonary salivary gland-type tumors
Bo-Guen Kim^{1*}, Kyungjong Lee¹, Sang-Won Um¹, Jungho Han², Jong Ho Cho³, Jhingook Kim³, Hojoong Kim¹, Byeong-Ho Jeong¹
(¹Division of Pulmonary and Critical Care Medicine, Department of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea, ²Department of Pathology and Translational Genomics, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea, ³Department of Thoracic Surgery, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea)
126. Is serum lymphocyte count helpful for identifying predictive biomarker to identify lung cancer patients who may benefit from an immunotherapy?
Ye Jin Lee^{1*}, Seo Young Yun³, Tae Yun Park³, Jung Kyu Lee³, Deog Keom Kim^{2,3}, Hee Soon Chung^{2,3}, Eun Young Heo³
(¹Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Seoul National University Hospital, Seoul, Republic of Korea, ²Department of Internal Medicine, Seoul National University College of Medicine, Seoul National University College of Medicine, Seoul, Republic of Korea, ³Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Seoul Metropolitan Government Seoul National University Boramae Medical Center, Seoul, Republic of Korea)

15:30 ~ 17:00

127. Genomic insight into stage I pulmonary adenocarcinoma for recurrence by targeted next-generation sequencing analysis
In Ae Kim ^{1*}, Hee Joung Kim ¹, Jae Young Hur ², Wan Seop Kim², Song Am Lee³, Jae Jun Hwang³, Kye Young Lee¹
(¹Department of Pulmonary Medicine, Konkuk University Medical Center, Seoul, Republic of Korea, ²Department of Pathology, Konkuk University School of Medicine, Seoul, Republic of Korea, ³Department of Thoracic Surgery, Konkuk University School of Medicine, Seoul, Republic of Korea)
128. UDP glucuronosyltransferases is related to the clonal expansion of TCGA-LUSC
Myung Jin Song* , Sang Hoon Lee , Eun Young Kim , YoonSoo Chang
(Department of Internal Medicine, Yonsei University College of Medicine, Seoul, Republic of Korea)
129. Co-targeting YAP/PD-L1 signaling and autophagy key factor p62 overcomes EGFR-TKI resistance in lung cancer
Chaeuk Chung* , Da Hye Lee , Da Hyun Kang , Hee Sun Park , Dongil Park , Jeong Eun Lee
(Department Of Internal Medicine, Chungnam National University, Daejeon, Republic of Korea)
130. The anti-tumor effects of resveratrol on non-small cell lung cancer with resistance to EGFR tyrosine kinase inhibitors through VEGF suppression
Hye Seon Kang* , Jung Won Heo , Eung Gu Lee , Soon Seog Kwon , Yong Hyun Kim
(Pulmonary, The Catholic University Of Korea, Bucheon St. Mary's Hospital, Bucheon/Gyeonggi, Republic of Korea)
131. Dual inhibitory effects of resveratrol in tobacco-carcinogen induced lung cancer via down-regulation of PI3K/Akt/mTOR pathway
Vikas Kumar^{1*}, Firoz Anwar²
(¹Pharmaceutical Sciences, Sam Higginbottom University Of Agriculture, Technology & Sciences, Allahabad, India, ²Biochemistry, King Abdulaziz University, Jeddah, Saudi Arabia)
132. Combination effect of trametinib and BC-LI-0186 inhibitor in non-small cell lung cancer
Sang Hoon Lee* , Eun Young Kim , Arum Kim , Kim Taehee , Yoon Soo Chang
(Internal Medicine, Yonsei University College of Medicine, Seoul, Republic of Korea)
133. T cell repertoire profiling: Blood based approaches to predict the efficacy of PD-1/PD-L1 blockade in NSCLC
Da Hyun Kang* , Chaeuk Chung , Ju Ock Kim , Sung Soo Jung , Hee Sun Park , Dongil Park , Jeong Eun Lee
(Department of Internal Medicine, Chungnam National University College Of Medicine, Daejeon, Republic of Korea)

134. Interferon- γ -inducible Chemokines as Prognostic Markers for Lung Cancer
Keu Sung Lee* , Kwang Joo Park , Ji Eun Park , Yun Jung Jung , Wou Young Chung , Joo Hun Park , Seung Soo Sheen
(Pulmonary and Critical Care Medicine, Ajou University School of Medicine, Suwon, Republic of Korea)
135. Exhaled Gas Analysis by GC-MS, Sampled from Flexible Bronchoscopy, for Finding Lung Cancer Biomarker
Yunghee Lee^{1,2*} , Byungsoo Kwon^{1,2} , Seongyoon Lim^{1,2} , Jong Sun Park^{1,2} , Young-Jae Cho^{1,2} , Jae Ho Lee^{1,2} , Choon-Taek Lee^{1,2} , Ho Il Yoon^{1,2}
(¹Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Seoul National University Bundang Hospital, Seongnam-Si / Gyeonggi-Do, Republic of Korea , ²Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Republic of Korea)

- Jade Room -

• **Subject Category : ILD**

10:30 ~ 12:00

136. Prognostic differences among patients with different etiologies of acute exacerbation of chronic fibrotic idiopathic interstitial pneumonia
Motoyasu Kato* , Yuta Arai , Hiroaki Motomura , Issei Sumiyoshi , Yusuke Ochi , Junko Watanabe , Hiroaki Ihara , Shinsaku Togo , Shinichi Sasaki , Kazuhisa Takahashi
(Department Of Respiratory Medicine, Juntendo University Graduate School Of Medicine, Tokyo, Japan)
137. Clinical impact of early acute respiratory deterioration in patients with idiopathic pulmonary fibrosis
Sang Won Yoon* , Jaeyoung Cho , Jinwoo Lee , Young Sik Park , Chang-Hoon Lee , Sang-Min Lee , Chul-Gyu Yoo , Young Whan Kim , Sung Koo Han , Sun Mi Choi
(Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Seoul National University Hospital, Seoul, Republic of Korea)
138. Prevalence and Predictive Factors of Obstructive Sleep Apnea in Korean Patients with Interstitial Lung Disease
JaeHa Lee^{1*} , Jinwoo Song²
(¹Pulmonary and Critical Care Medicine, Haeundae Paik Hospital, Inje University, Busan, Republic of Korea , ²Pulmonary and Critical Care Medicine, Asan Medical Center, University Of Ulsan College Of Medicine, Seoul, Republic of Korea)
139. Long-term change in real-world clinical practice in IPF and its impact on survival: Results from consecutive nationwide registries
Sung Woo Moon^{1*} , Song Yee Kim¹ , Behalf Of ILD Study Group² , Moo Suk Park¹
(¹Division of Pulmonary and Critical Care Medicine, Department Of Internal Medicine, Yonsei University College of Medicine, Yonsei University Health System , Seoul, Republic of Korea , ²Republic of Korea)

140. High resolution computed tomography pattern of usual interstitial pneumonia is associated with clinical course in idiopathic pulmonary fibrosis
Byoung Soo Kwon^{1*}, Jin Woo Song², Jooae Choi³, Kyung Hyun Do³, Eun Jin Chae³
(¹Pulmonary and Critical Care Medicine, Seoul National University Bundang Hospital, Seongnam-Si, Republic of Korea, ²Pulmonology and Critical Care Medicine, Asan Medical Center, Seoul, Republic of Korea, ³Radiology, Asan Medical Center, Seoul, Republic of Korea)
141. Quantitative computed tomography measures of skeletal muscle mass in patients with idiopathic pulmonary fibrosis according to the multidisciplinary discussion diagnosis
Nobuyasu Awano^{1*}, Minoru Inomata¹, Naoyuki Kuse¹, Mari Tone¹, Hanako Yoshimura¹, Tatsunori Jo¹, Kohei Takada¹, Chikatoshi Sugimoto², Tomonori Tanaka³, Hiromitsu Sumikawa⁴, Yuzo Suzuki⁵, Tomoyuki Fujisawa⁵, Takafumi Suda⁵, Takehiro Izumo¹
(¹Respiratory Medicine, Japanese Red Cross Medical Center, Tokyo, Japan, ²Clinical Research Center, National Hospital Organization Kinki-Chuo Chest Medical Center, Osaka, Japan, ³Diagnostic Pathology, Kobe University Graduate School of Medicine, Kobe, Japan, ⁴Radiology, Sakai City Medical Center, Osaka, Japan, ⁵Second Division, Department of Internal Medicine, Hamamatsu University School of Medicine, Hamamatsu, Japan)
142. Antifibrotic treatment reduces mortality and respiratory-related hospitalization in patients with idiopathic pulmonary fibrosis: a propensity-score matching analysis
Jieun Kang^{1*}, Minkyu Han², Jin Woo Song¹
(¹Department of Pulmonary and Critical Care Medicine, Asan Medical Center, Seoul, Republic of Korea, ²Department of Clinical Epidemiology and Biostatistics, Asan Medical Center, Seoul, Republic of Korea)
143. BBT-877 is a Potent Autotaxin Inhibitor in Clinical Development to Treat Idiopathic Pulmonary Fibrosis.
Gwanghee Lee¹, Sang Uk Kang¹, Jeong-Hyun Ryou^{1*}, Jong-Jin Lim¹, Yong-Hee Lee¹, Jin Woo Song²
(¹Research & Development, Bridge Biotherapeutics Inc., Seongnam-si, Republic of Korea, ²Pulmonology and Critical Care Medicine, Asan Medical Center, Seoul, Republic of Korea)
144. Acute exacerbation of interstitial lung disease; subgroup analysis for causes, risk factors for mortality rate, and steroid responsiveness
Seung Hyun Yong¹, Ah Young Leem¹, Song Yee Kim¹, Kyung Soo Chung¹, Ji Ye Jung¹, Young Ae Kang¹, Young Sam Kim¹, Joon Chang¹, Moo Suk Park¹, Hye Jin Jang^{1*}
(¹Department Of Internal Medicine, Yonsei University College Of Medicine, Seoul, Republic of Korea, ²Department of internal medicine, Yonsei University College Of Medicine, Seoul, Republic of Korea, ³Department of internal medicine, Yonsei University College Of Medicine, Seoul, Republic of Korea, ⁴Department of internal medicine, Yonsei University College Of Medicine, Seoul, Republic of Korea, ⁵Department of internal medicine, Yonsei University College Of Medicine, Seoul, Republic of Korea, ⁶Department of internal medicine, Yonsei University College Of

Medicine, Seoul, Republic of Korea , ⁷Department of internal medicine, Yonsei University College Of Medicine, Seoul, Republic of Korea , ⁸Department of internal medicine, Yonsei University College Of Medicine, Seoul, Republic of Korea , ⁹Department of internal medicine, Yonsei University College Of Medicine, Seoul, Republic of Korea , ¹⁰ Department of internal medicine, Yonsei University College Of Medicine, Seoul, Republic of Korea)

· **Subject Category : Bronchoscopy, Surgery, Diagnostic**

13:30 ~ 15:00

145. Nitrogen Dioxide Increases the Risk of Mortality in Patients with Idiopathic Pulmonary Hocheol Kim^{1*} , Hee-Young Yoon¹ , Sun-Young Kim² , Jin Woo Song¹
(¹Department of Pulmonary and Critical Care Medicine , Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea , ²Department of Cancer Control and Population Health, Graduate School of Cancer Science and Policy, National Cancer Center, Seoul, Republic of Korea)
146. Management of malignant central airway obstruction in a tertiary hospital in viet nam Giap Vu Van* , Chau Ngo Quy , Ha Pham Ngoc , Du Nguyen Ngoc , Duc Hoang Anh (Respiratory Center, Bach Mai Hospital, HA NOI, Vietnam)
147. Laser therapy in patients with suprastomal tracheal stenosis after tracheostomy KI HYUN SEO* , CHEOL KIM , JI HYUN OH , JI WON LYU , HO SUNG LEE , JAE SUNG CHOI , JU OCK NA , YONG HOON KIM
(Department Of Internal Medicine, Soonchunhyang University Cheonan Hospital, Cheonan , Republic of Korea)
148. 3D-engineered personalized airway stent (“custom GINA stent”): introduction and evaluation in a pig model of tracheal stenosis
Jin Hyoung Kim^{1*} , Soyeoun Lim² , Jong Joon Ahn¹ , Yangjin Jegal¹ , Kwang Won Seo¹ , Seung Won Ra¹ , Byung Ju Kang¹ , Soohyun Bae¹ , Don Han Kim³ , Taehoon Lee¹
(¹Internal Medicine, Ulsan University Hospital, Ulsan, Republic of Korea , ²Radiology, Ulsan University Hospital, Ulsan, Republic of Korea , ³Digital Contents Design, University of Ulsan College of Design and Architecture, Ulsan, Republic of Korea)
149. Transbronchial Lung Cryobiopsy : single institutional report in Japan
Takashi Niwa^{1*} , Tomohisa Baba¹ , Tamiko Takemura¹ , Kenta Murotani² , Takashi Ogura¹
(¹Respiratory Medicine, Kanagawa Cardiovascular and Respiratory Center, Yokohama, Japan , ²Biostatistics Center, Kurume University, Fukuoka, Japan)
150. Predicting Malignancy Risk of Lung Nodules Diagnosed as Indeterminate on Radial Endobronchial Ultrasound Guided biopsy
Sungmin Zo^{1*} , Kyungjong Lee¹ , Sook-young Woo² , Seonwoo Kim² , Ho Yun Lee³ , Byeong-Ho Jeong¹ , Sang-Won Um¹ , Hojoong Kim¹
(¹Department Of Internal Medicine, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea , ²Division of Pulmonary and Critical Care Medicine,

Sungkyunkwan University School of Medicine, Seoul, Republic of Korea , ³Department of Radiology and Center for Imaging Science, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea)

151. Diagnostic Yield and Clinical characteristics of Endobronchial Ultrasound with a Guide-Sheath without Fluoroscopy.

Kyung Soo Hong^{*} , June Hong Ahn^{*} , Jong Geol Jang , Jin Hong Chung , Kyeong Cheol Shin , Hyun Jung Jin , Eun Young Choi

(Department of Internal Medicine, Yeungnam University College of Medicine, Daegu, Republic of Korea)

152. The incidence and risk factors of infectious complications after EBUS-TBNA: a case-control study

Noeul Kang^{*} , Hongseok Yoo , Byung Woo Jhun , Kyungjong Lee , Sang-Won Um , Hojoong Kim , O Jung Kwon , Byeong-Ho Jeong

(Division of Pulmonary and Critical Care Medicine, Department of Medicine, Samsung Medical Center, Seoul, Republic of Korea)

153. Frozen section of pleural biopsies during flex-rigid medical thoracoscopy assists in correctly identifying malignant disease.

Jongyeol Oh^{1*} , Woo Ho Ban² , Hyung Woo Kim¹ , Ah Young Shin¹ , Ju Sang Kim¹ , Sang Haak Lee² , Joong Hyun Ahn¹ , Jick Hwan Ha¹

(¹Pulmonology, Incheon Saint Mary's Hospital, Incheon, Republic of Korea ,

²Pulmonology, Eunpyeong Saint Mary's Hospital, Seoul, Republic of Korea)

• **Subject Category : ILD**

15:30 ~ 17:00

154. Prevalence and Associated Factors of Dysphagia in Lung Transplantation

Jin-hee Noh^{1*} , Woo Hyun Cho¹ , Taehwa Kim¹ , Sungchul Huh² , Jin ook Jang¹ , Hye Ju Yeo¹ , Doosoo Jeon¹ , Yun Seong Kim¹ , Hyun-Yoon Ko²

(¹Department of Pulmonology and Critical Care Medicine, Pusan National University Yangsan Hospital, Yangsan, Republic of Korea , ²Department of Rehabilitation Medicine, Pusan National University Yangsan Hospital, Yangsan, Republic of Korea)

155. Clinical characteristics and prognosis of fibrotic nonspecific interstitial pneumonia according to underlying causes.

HYUNKYU CHO^{1*} , HONGSEOK YOO¹ , KYUNG SOO LEE² , MYUNG JIN CHUNG² , MAN PYO CHUNG¹

(¹Department Of Internal Medicine, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea , ²Department Of Radiology, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea)

156. Radiographic parameters predicts survival in chronic hypersensitivity pneumonitis

Yeon Joo Kim^{1*} , Jooae Choe² , Eun Jin Chae² , Jin Woo Song¹

(¹Pulmonology, Asan Medical Center, Seoul, Republic of Korea , ²Radiology, Asan Medical Center, Seoul, Republic of Korea)

157. Clinical implication of sarcoid like reaction in patients with malignancy
Do Sik Moon* , Jin Woo Song
(Department of Pulmonary and Critical Care Medicine, Seoul Asan Medical Center, Seoul, Republic of Korea)
158. Human Lung Microbial Communities are associated with Clinical Outcome in Patients with Idiopathic Pulmonary Fibrosis
Hocheol Kim^{1*} , Hee-young Yoon¹ , Kwanghun Choi¹ , Jin-Woo Bae² , Jin Woo Song¹
(¹Department of Pulmonary and Critical Care Medicine, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea , ²Department of Microbiology, College of Medicine, Kyunghee University, Seoul, Republic of Korea)
159. Inhibition of EphA2-EphrinA1 signal attenuates pulmonary fibrosis
Ah Young Leem* , Mi Hwa Shin , Kyung Soo Chung , Song Yee Kim , Ji Ye Jung , Young Ae Kang , Young Sam Kim , Joon Chang , Moo Suk Park
(Division of Pulmonology, Yonsei University College of Medicine, Seoul, Republic of Korea)
160. Overexpression of Fatty Acid Synthase Attenuate Bleomycin Induced Lung Fibrosis
Sung Woo Park* , Mi So Kim , Ae Rin Baek , Jong Sook Park , June Hyuk Lee , An Soo Jang , Do Jin Kim
(Department of Internal Medicine, Soonchunhyang University Bucheon Hospital, Bucheon , Republic of Korea)
161. 6-aminonicotinamide ameliorates pulmonary fibrosis by suppressing the TGF- β 1-activated Smad signaling pathway
MIAE KIM^{1*} , Jin Woo Song¹ , Kwanghon Choi¹ , Su Jin Moon¹ , Hyun Ju Yoo²
(¹Pulmonary and Critical Care Medicine, Asan Medical Institute of Convergence Science and Technology, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea , ²Convergence Medicine, Asan Medical Institute of Convergence Science and Technology, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea)
162. Abnormal mitochondrial functionalities regarding the biogenesis, mitochondrial DNA integrity, and generation of mitochondrial ROS in PHMG-induced lung injury can be regulated by NecroX
Yong Chul Lee^{1,2*} , Jae Seok Jeong^{1,2} , So Ri Kim^{1,2} , Hae Jin Park^{1,2} , Kyeong Hwa Park^{1,2}
(¹Department of Internal Medicine, Research Center for Pulmonary Disorders, Chonbuk National University Medical School, Jeonju, Republic of Korea , ²Research Institute of Clinical Medicine, Chonbuk National University-Biomedical Research Institute of Chonbuk National University Hospital, Jeonju, Republic of Korea)