

專任教師

高國晉 教授

Kuo-Chin Kao, MD.



現職

長庚大學呼吸治療學系 教授
林口長庚醫院內科部 副部長
林口長庚醫院胸腔內科 教授級主治醫師
第八屆中華民國重症醫學會 副理事長
第十八屆台灣胸腔暨重症加護醫學會 理事

學歷

台北醫學大學醫學系醫學士

研究專長

呼吸照護、重症醫學、ARDS、肺移植

聯絡分機

(03)3281200 分機 8474

Email

kck0502@cgmh.org.tw

經歷

林口長庚醫院內科住院醫師, 1994/7-1997/6
林口長庚醫院胸腔內科總醫師, 1997/7-1999/6
林口長庚醫院胸腔內科主治醫師, 1999/7-迄今
加拿大多倫多大學重症醫學部研究員, 2001/7-2002/6
林口長庚醫院內科加護病房主任, 2004/7-2011/5
台灣胸腔暨重症加護醫學會副祕書長, 2009/2-2012/1
林口長庚醫院呼吸治療科主任, 2010/1-2017/6
林口長庚醫院胸腔內科系呼吸道疾病科主任, 2016/7-2017/6

研究計畫

科技部研究計畫 (2015 起)

1. 轉基因小鼠實驗模型研究流感重症之免疫調節: NMRPG3F0091: 2015/8/1-2016/7/30

(共同持人)

2. 肺炎鏈球菌繼發感染對流感病毒感染抗原專一性免疫反應之細胞及分子調節機制以及藥物治療對於免疫調節的影響: NMRP107-2314-B-182A-115:2018/08/01-2019/07/31 (共同持人)
3. 加護病房病患侵襲性黴菌感染之診斷與處置: MRP107-2314-B-182A-114:2018/08/01-2019/07/31 (共同主持人)

長庚醫學研究計畫 (主持人) (2015 起)

1. 急性呼吸窘迫症候群(ARDS)流行病學分析與預後因子探討: CMRP G3D0851: 2014/2/1-2016/1/31
2. 加護病房發生嚴重敗血症後侵襲性念珠菌感染的診斷和治療: CMRP G3D1121-3: 2014/8/1-2017/7/31
3. 代謝質體學在急性呼吸窘迫症候群(ARDS)的前瞻性觀察研究: CMRPG3F0791: 2016/2/1-2017/1/31
4. 八仙樂園粉塵爆炸患者對呼吸系統的影響與併發症及復原後的心理後遺症: CORPG3F0101: 2016/6/1-2017/5/31
5. Application of analytic morphomic in acute respiratory distress syndrome (ARDS): CORPG3G0151: 2017/3/1-2018/2/28
6. 應用由代謝體學所建立的營養評估方法 於亞急性呼吸照護病房的長期呼吸器使用病人之營養評估及營養介入與預後的相關性: CORPG3J0081: 2019/3/1-2022/2/29

獲獎

2018 年度 長庚醫學研究獎 臨床組傑出獎

研究成果 (論文發表: 2015 起)

1. Chiu LC, Chuang LP, Leu SW, Lin YJ, Chang CJ, Li HH, Tsai FC, Chang CH, Hung CY, Lin SW, Hu HC, Huang CC, Wu HP, Kao KC*. Extracorporeal Membrane Oxygenation for Severe Acute Respiratory Distress Syndrome: Propensity Score Matching. Membranes (Basel). 2021 May 26;11(6):393. (Corresponding author)
 2. Chang KW, Leu SW, Lin SW, Liang SJ, Yang KY, Chan MC, Chen WC, Hu HC, Fang WF, Chen YM, Sheu CC, Tsai MJ, Wang HC, Chien YC, Peng CK, Wu CL, Kao KC*, Taiwan Severe Influenza Research Consortium. Renal Replacement Therapy in Patients with Influenza Pneumonia Related Acute Respiratory Distress Syndrome. J Clin Med. 2021 Apr 23;10(9):1837. (Corresponding author)
 3. Lai CC, Lu CT, Kao KC, Lu MC, Ko WC, Hsueh PR. Association of fluoroquinolones use with the risk of aortic aneurysm or aortic dissection: Facts and myths. J Microbiol Immunol Infect. 2021 Apr;54(2):182-184.
 4. Huang HY, Lee CS, Chiu TH, Chen HH, Chan LY, Chang CJ, Chang SC, Hu HC, Kao KC, Chen NH, Lin SM, Li LF. Clinical outcomes and prognostic factors for prolonged mechanical ventilation in patients with acute stroke and brain trauma. J Formos Med Assoc. 2021 Mar
-

6:S0929-6646(21)00075-9.

5. Chiu LC, Lin SW, Chuang LP, Li HH, Liu PH, Tsai FC, Chang CH, Hung CY, Lee CS, Leu SW, Hu HC, Huang CC, Wu HP, Kao KC*. Mechanical power during extracorporeal membrane oxygenation and hospital mortality in patients with acute respiratory distress syndrome. *Crit Care*. 2021 Jan 6;25(1):13. (Corresponding author)
 6. Chang PC, Yang CC, Kao KC, Wen MS. Clinical outcomes of patients hospitalized for COVID-19 versus SARS: a meta-analysis. *Aging (Albany NY)*. 2020 Nov 24;12(24):24552-24569.
 7. Tsai MJ, Yang KY, Chan MC, Kao KC, Wang HC, Perng WC, Wu CL, Liang SJ, Fang WF, Tsai JR, Chang WA, Chien YC, Chen WC, Hu HC, Lin CY, Chao WC, Sheu CC; for Taiwan Severe Influenza Research Consortium (TSIRC) Investigators. Impact of corticosteroid treatment on clinical outcomes of influenza-associated ARDS: a nationwide multicenter study. *Ann Intensive Care*. 2020 Feb 27;10(1):26.
 8. Huang PY, Su CP, Liu SW, Kao KC, Hsieh YC, Huang CT. Correlation between Negative Rapid Influenza Diagnostic Test and Severe Disease in Hospitalized Adults with Laboratory-Confirmed Influenza Virus Infection. *Am J Trop Med Hyg*. 2020 Aug 31;103(4):1642-8.
 9. Chen CB, Hsu TH, Chung-Yee Hui R, Lu CW, Chen WT, Chiang PH, Wang CW, Chuang SS, Yang JY, Yang SY, Chang SY, Hsiao YC, Kao KC, Hu HC, Wu TS, Hsu CW, Hui-Kang Ma D, Chen SY, Tian YC, Cheng CY, Chen CH, Chi MH, Wu MY, Liu RF, Wang CH, Chang YG, Lin JY, Ho HC, Yu-Wei Lin Y, Chang CJ, Lin YJ, Ku CL, Hung SI, Chung WH; Taiwan Severe Cutaneous Adverse Reaction Consortium. Disseminated intravascular coagulation in Stevens-Johnson syndrome and toxic epidermal necrolysis. *J Am Acad Dermatol*. 2020 Aug 20:S0190-9622(20)32459-2.
 10. Chen WC, Kao KC, Sheu CC, Chan MC, Chen YM, Chien YC, Peng CK, Liang SJ, Hu HC, Tsai MJ, Fang WF, Perng WC, Wang HC, Wu CL, Yang KY; TSIRC (Taiwan Severe Influenza Research Consortium). Risk factor analysis of nosocomial lower respiratory tract infection in influenza-related acute respiratory distress syndrome. *Ther Adv Respir Dis*. 2020 Jan-Dec;14:1753466620942417.
 11. Chiu LC, Lin SW, Liu PH, Chuang LP, Chang CH, Hung CY, Li SH, Lee CS, Wu HP, Huang CC, Li HH, Kao KC, Hu HC. Reclassifying severity after 48 hours could better predict mortality in acute respiratory distress syndrome. *Ther Adv Respir Dis*. 2020 Jan-Dec;14:1753466620936877.
 12. Wu HP, Hu HC, Chu CM, Kao KC*. The association between higher driving pressure and higher mortality in patients with pneumonia without acute respiratory distress syndrome. *J Formos Med Assoc*. 2020 May 1:S0929-6646(20)30165-0. (Corresponding author)
 13. Tsai MJ, Yang KY, Chan MC, Kao KC, Wang HC, Perng WC, Wu CL, Liang SJ, Fang WF, Tsai JR, Chang WA, Chien YC, Chen WC, Hu HC, Lin CY, Chao WC, Sheu CC; for Taiwan Severe Influenza Research Consortium (TSIRC) Investigators. Impact of corticosteroid treatment on clinical outcomes influenza-associated ARDS: a nationwide multicenter study. *Ann Intensive Care*. 2020 Feb 27;10(1):26.
 14. Hu CA, Chen CM, Fang YC, Liang SJ, Wang HC, Fang WF, Sheu CC, Perng WC, Yang KY, Kao KC, Wu CL, Tsai CS, Lin MY, Chao WC; TSIRC (Taiwan Severe Influenza Research Consortium). Using a machine learning approach to predict mortality in critically ill influenza patients: a cross-sectional retrospective multicentre study in Taiwan. *BMJ Open* 2020 Feb 25;10(2):e033898.
 15. Li SH, Hsieh MJ, Lin SW, Chuang LP, Lee CS, Chiu LC, Chang CH, Hu HC, Huang CC, Kao KC
-

-
- Outcomes of severe H1N1 pneumoniae: A retrospective study at intensive care units. *J Formos Med Assoc.* 2020, 119, 26-33. (Corresponding author)
16. Huang CH, Chang KY, Chiu LC, Chang CH, Lee CS, Hu HC, Huang CC, Kao KC*. Survival Predictors Patients with Acute Respiratory Distress Syndrome and Underlying Chronic Respiratory Disease. *Thorac Med* 2019; 34:230-239. (Corresponding author)
 17. Chuang LP, Chen NH, Lin SW, Hu HC, Kao KC, Li LF, Yang CT, Huang CC, Pang JS. Monocytic C chemokine receptor 5 expression increases in in vitro intermittent hypoxia condition and in severe obstructive sleep apnea patients. *Sleep Breath.* 2019;23(4):1177–1186.
 18. Lin CY, Wang IT, Chang CC, Lee WC, Liu WL, Huang YC, Chang KW, Huang HY, Hsiao HL, Kao KC, Hua CC, Dimopoulos G. Comparison of Clinical Manifestation, Diagnosis, and Outcomes of Invasive Pulmonary Aspergillosis and Pulmonary Mucormycosis. *Microorganisms.* 2019 Nov 5;7(11).
 19. Liu YY, Chen NH, Chang CH, Lin SW, Kao KC, Hu HC, Chang GJ, Li LF. Ethyl pyruvate attenuates ventilation-induced diaphragm dysfunction through high-mobility group box-1 in a murine endotoxaemia model. *J Cell Mol Med.* 2019 Aug;23(8):5679-5691.
 20. Cardinal-Fernandez P, Ortiz G, Chang CH, Kao KC, Bertreau E, Philipponnet C, Casero-Alonso VI, Souweine B, Charbonney E, Guérin C. Predicting the Impact of Diffuse Alveolar Damage through Open Lung Biopsy in Acute Respiratory Distress Syndrome-The PREDATOR Study. *J Clin Med.* 20 Jun 11;8(6).
 21. Su CR, Hajiyev J, Fu CJ, Kao KC, Chang CH, Chang CT. A novel framework for a remote patient monitoring (RPM) system with abnormality detection. *Health Policy and Technology* 8 (2019) 15–170.
 22. Chen NH, Lin SW, Chuang LP, Cistulli PA, Hsieh MJ, Kao KC, Liao YF, Li LF, Yang CT. Pharyngeal distensibility during expiration is an independent predictor of the severity of obstructive sleep apnoea. *Respirology.* 2019 Jun;24(6):582-589.
 23. Hsieh MJ, Hu HC, Kao KC, Cho HY, Huang CC, Chen NH, Chou YL, Chang CH, Tsai YH. The Risk of Latent Tuberculosis Infection in Respiratory Therapists in a Country with Intermediate Incidence. *Respir Care.* 2019 Mar;64(3):313-320.
 24. Chuang LP, Lin SW, Lee LA, Chang CH, Huang HY, Hu HC, Kao KC, Hsieh MJ, Yang CT, Li HY, Chen NH. Elevated Serum Markers of Acute Kidney Injury in Patients With Obstructive Sleep Apnea. *J Clin Sleep Med.* 2019 Feb 5;15(2):207-213.
 25. Yu TJ, Liu YC, Chu CM, Hu HC, Kao KC*. Effects of theophylline therapy on respiratory muscle strength in patients with prolonged mechanical ventilation: A retrospective cohort study. *Medicine (Baltimore).* 2019 Jan;98(2):e13982. (Corresponding author)
 26. Chan MC, Chao WC, Liang SJ, Tseng CH, Wang HC, Chien YC, Yang KY, Chen WC, Perng WC, Kao KC, Hu HC, Sheu CC, Chang WA, Fang WF, Chen YM, Slutsky AS, Wu CL; for Taiwan Severe Influenza Research Consortium (TSIRC) Investigators. First tidal volume greater than 8 mL/kg is associated with increased mortality in complicated influenza infection with acute respiratory distress syndrome. *J Formosa Med Assoc.* 2019 Jan;118 (1 Pt 2):378-385.
 27. Chang KW, Hsieh MJ, Lin SW, Chuang LP, Chen NH, Hu HC, Li LF, Wang CW, Huang CC, Kao KC. Survival Predictors in Oldest-Old (≥85 Years Old) Patients with Acute Respiratory Distress Syndrome: A Prospective Observational Cohort Study. *Thorac Med* 2018; 33: 221-22
-

(Corresponding author)

28. Lee EP, Hsia SH, Huang CC, Kao KC, Chan OW, Lin CY, Su YT, Hu IM, Lin JJ, Wu HP. Strong correlation between doppler snuffbox resistive index and systemic vascular resistance in septic patients. *J C Care*. 2018 Oct 16;49:45-49.
 29. Kao KC, Chang KW, Chan MC, Liang SJ, Chien YC, Hu HC, Chiu LC, Chen WC, Fang WF, Chen YM, Sheu CC, Tsai MJ, Perng WC, Peng CK, Wu CL, Wang HC, Yang KY* and TSIRC (Taiwan Severe Influenza Research Consortium). Predictors of survival in patients with influenza pneumonia-related severe acute respiratory distress syndrome treated with prone positioning. *Ann Intensive Care*. 2018 Sep 24;8(1):94.
 30. Kao KC, Hsieh MJ, Lin SW, Chuang LP, Chang CH, Hu HC, Wang CH, Li LF, Huang CC, Wu HP. Survival predictors in elderly patients with acute respiratory distress syndrome: a prospective observational cohort study. *Sci Rep*. 2018 Sep 7;8(1):13459.
 31. Feng JY, Chien JY, Kao KC, Tsai CL, Hung FM, Lin FM, Hu HC, Huang KL, Yu CJ, Yang K Predictors of Early Onset Multiple Organ Dysfunction in Major Burn Patients with Ventilator Support: Experience from A Mass Casualty Explosion. *Sci Rep*. 2018 Jul 19;8(1):10939.
 32. Li LF, Liu YY, Chen NH, Chen YH, Huang CC, Kao KC, Chang CH, Chuang LP, Chiu L Attenuation of ventilation-induced diaphragm dysfunction through toll-like receptor 4 and nuclear factor- κ B in a murine endotoxemia model. *Lab Invest*. 2018 Sep;98(9):1170-1183.
 33. Hsu CK, Chu CM, Huang CY, Hung MJ, Kao KC, Wu HP. High Lymphocyte Percentage in Bronchoalveolar Lavage Fluid of Patients with H1N1-Associated Acute Respiratory Distress Syndrome. *J Intern Med Taiwan* 2018; 29: 46-53.
 34. Hsieh MJ, Lee WJ, Cho HY, Wu MF, Hu HC, Kao KC, Chen NH, Tsai YH, Huang CC. Recovery of Pulmonary functions, Exercise Capacity and Quality of Life after Pulmonary Rehabilitation in Survivors of ARDS due to Severe Influenza A (H1N1) Pneumonitis. *Influenza Other Respir Viruses*. 2018;12:643-648.
 35. Kao HK, Loh CY, Kou HW, Kao KC, Hu HC, Chang CM, Lee CH, Hsu HH. Optimizing mass casualty burns intensive care organization and treatment using evidence-based outcome predictors. *Burns*. 2018 Aug;44(5):1077-1082.
 36. Hung CY, Hu HC, Chiu LC, Chang CH, Li LF, Huang CC, Kao CC, Cheng PJ, Kao KC*. Maternal and neonatal outcomes of respiratory failure during pregnancy. *J Formos Med Assoc*. 20 May;117(5):413-420. (Corresponding author)
 37. Hu HC, Chang CH, Hsu HH, Chang CM, Huang CC, Chuang SS, Kao KC*. Inhalation injury caused by cornstarch dust explosion in intubated patients – A single center experience. *Burns*. 20 Feb;44(1):134-139. (Corresponding author)
 38. Chao WC, Tseng CH, Chien YC, Sheu CC, Tsai MJ, Fang WF, Chen YM, Kao KC, Hu HC, Perng W Yang KY, Chen WC, Liang SJ, Wu CL, Wang HC, Chan MC; TSIRC (Taiwan Severe Influenza Research Consortium). Association of day 4 cumulative fluid balance with mortality in critically ill patients with influenza: A multicenter retrospective cohort study in Taiwan. *PLoS One*. 2018 Jun 9;13(1):e0190952.
 39. Li SH, Liu CY, Hsu PC, Fang YF, Wang CC, Kao KC, Tseng LC, Yang CT. Response to afatinib treatment-naïve patients with advanced mutant epidermal growth factor receptor lu
-

-
- adenocarcinoma with brain metastases. *Expert Rev Anticancer Ther.* 2018 Jan;18(1):81-89.
40. Chang CH, Juan YH, Hu HC, Kao KC, Lee CS. Reversal of lung fibrosis: an unexpected finding survivor of acute respiratory distress syndrome. *QJM: An International Journal of Medicine* 2018:47-48.
41. Chang CH, Lee CS, Li SH, Chung FT, Wang CW, Juan YH, Hu HC, Li LF, Chen NH, Yang CT, Kao KC Feasibility of radial endobronchial ultrasound-guided bronchoscopic cryobiopsy without fluoroscopy for lung parenchymal lesions. *Can Respir J.* 2017:7170687. (Corresponding author)
42. Kao KC, Chang CH, Hung CY, Chiu LC, Huang CC, Hu HC. Survival Predictor in Patients with Acute Respiratory Distress Syndrome and Diffuse Alveolar Damage Undergoing Open Lung Biopsy. *PL One.* 2017 Jul 5;12(7):e0180018.
43. Li LF, Kao KC, Liu YY, Lin CW, Chen NH, Lee CS, Wang CW, Yang CT. Nintedanib reduces ventilation-augmented bleomycin-induced epithelial-mesenchymal transition and lung fibrosis through suppression of the Src pathway. *J. Cell. Mol. Med.* 2017 Nov: 21 (11): 2937-2949.
44. Kao KC, Chiu LC, Hung CY, Chang CH, Yang CT, Huang CC, Hu HC. Coinfection and mortality pneumonia-related acute respiratory distress syndrome patients with bronchoalveolar lavage: prospective observation study. *SHOCK.* 2017 May;47(5):615-620.
45. Wu HP, Chu CM, Kao KC, Huang SH, Chuang DY. High Interleukin-10 Expression in Type 2 Helper Cells in Septic Patients. *Immunol Invest.* 2017 Apr 4:1-10.
46. Chiu LC, Hu HC, Hung CY, Chang CH, Tsai FC, Yang CT, Huang CC, Wu HP, Kao KC. Dynamic driving pressure associated with mortality in acute respiratory distress syndrome with extracorporeal membrane oxygenation. *Ann Intensive Care.* 2017 Dec;7 (1):12.
47. Lin CY, Liu WL, Chang CC, Chang HT, Hu HC, Kao KC, Chen NH, Chen YJ, Yang CT, Huang CC, Dimopoulos G. Invasive fungal tracheobronchitis in mechanically ventilated critically ill patients: underlying conditions, diagnosis, and outcomes. *Ann Intensive Care.* 2017 Dec;7(1):9.
48. Chuang LP, Lin SW, Lee LA, Li HY, Chang CH, Kao KC, Li LF, Huang CC, Yang CT, Chen NH. The gender difference of snore distribution and increased tendency to snore in women with menopause syndrome: a general population study. *Sleep Breath.* 2017 May;21(2):543-547.
49. Chu CM, Kao KC, Huang SH, Chuang DY, Wu HP. Diagnostic value of apoptosis biomarkers in severe sepsis-A pilot study. *Cell Mol Biol (Noisy-le-grand).* 2016 Sep; 30;62(11):32-37.
50. Gong YN, Yang SL, Shih SR, Huang YC, Chang PY, Huang CG, Kao KC, Hu HC, Liu YC, Tsao K. Molecular evolution and the global reemergence of enterovirus D68 by genome-wide analysis. *JAMA Pediatrics (Baltimore).* 2016 Aug;95(31):e4416.
51. Chen YH, Yeh MC, Hu HC, Lee CS, Li LF, Chen NH, Huang CC, Kao KC*. Effects of Lung Expansion Therapy on Lung Function in Patients with Prolonged Mechanical Ventilation. *Can Respir J.* 2016:5624315. (Corresponding author)
52. Hsu PC, Chiu LC, Li SH, Chen CH, Wang CL, Kao KC, Chang JW, Wang CW, Yu CT, Chung FT, Yang C, Liu CY. Continuous Epidermal Growth Factor Receptor-Tyrosine Kinase Inhibitor Administration in Primary Lung Adenocarcinoma Patients Harboring Favorable Mutations With Controlled Targeted Therapy: Lung Tumors Dose Not Hinder Survival Benefit Despite Small New Lesions. *Biomed Res Int.* 2016;39:121-129.
53. Hsin CH, Wu MY, Huang CC, Kao KC, Lin PJ. Venovenous extracorporeal membrane oxygenation
-

-
- adult respiratory failure: Scores for mortality prediction. *Medicine (Baltimore)*. 2016;95(25):e3989
54. Cardinal-Fernández P, Pey C, Kao KC. ARDS: Time to "separate the wheat from the chaff". *J C Care*. 2016;34:31-32.
55. Huang CY, Shih CC, Chung K, Kao KC, Wu HP. Predictive value of plasma neutrop gelatinase-associated lipocalin for acute renal failure in patients with severe sepsis. *J Chin M Assoc*. 2016;79(8):428-434.
56. Hsiao HF, Hu HC, Lin CW, Lee CS, Chou LT, Huang CC, Kao KC*. Successfully supported noninvasive ventilation for H7N9 viral pneumonia with acute respiratory distress syndrome: a report. *Resuscitation & Intensive Care Med*. 2016;1:29-33. (Corresponding author)
57. Chen CH, Kao KC, Chen MH, Huang CC, Lin HI, Chang YT, Hu HC. Pulmonary Tuberculosis-Related Acute Respiratory Distress Syndrome in a Healthy Adult Rescued by Extracorporeal Membrane Oxygenation –A Case Report and Literature Review. *Thorac Med* 2016;31:60-66.
58. Kao KC, Hu HC, Hsieh MJ, Tsai YH, Huang CC. Comparison of Community-acquired Hospital-acquired, and Intensive Care Unit-acquired Acute Respiratory Distress Syndrome: Prospective Observational Cohort Study. *Crit Care* 2015;19:384.
59. Hu HC, Kao KC*, Chiu LC, Chang CH, Hung CY, Li LF, Liu TP, Lin LC, Chen NH, Huang CC, Yang CT, JJ. Clinical outcomes and molecular typing of heterogenous vancomycin-intermediate Staphylococcus aureus bacteremia in ICU patients. *BMC infectious Disease* 2015;15:44 (Co-corresponding author)
60. Chen YH, Lin HL, Hsiao HF, Huang CT, Kao KC, Li LF, Huang CC, Tsai YH. Effects of an additional pressure support level on exercise duration in patients on prolonged mechanical ventilation. *Formos Med Assoc*. 2015;1204-1210.
61. Li LF, Lee CS, Liu YY, Chang CH, Lin CW, Chiu LC, Kao KC, Chen NH, Yang CT. Activation Src-dependent Smad3 signaling mediates the neutrophilic inflammation and oxidative stress hyperoxia-augmented ventilator-induced lung injury. *Respir Res*. 2015;16(1):112.
62. Wu J, Lee YY, Su SC, Wu TS, Kao KC, Huang CC, Chang WC, Yang CH, Chung WH. Stevens-Johnson Syndrome and Toxic Epidermal Necrolysis in patients with malignancy. *Br J Dermatol* 2015;173:1224-1231.
63. Tsai HC, Chang CH, Tsai FC, Fan PC, Juan KC, Lin CY, Yang HY, Kao KC, Fang JT, Yang CW, Chang S, Chen YC. Acute respiratory distress syndrome with and without extracorporeal membrane oxygenation: a score match study. *Ann Thorac Surg*. 2015;100:458-464.
64. Kao KC*, Chen CB, Hu HC, Chang HC, Huang CC, Huang YC. Risk Factors of Methicillin-Resistant Staphylococcus aureus Infection and Correlation with Nasal Colonization Based on Molecular Genotyping in Medical Intensive Care Units: A Prospective Observational Study. *Medicine* 2015;94(28):e1100 (Co-first author)
65. Wu MF, Li YS, Hung CY, Chao WC, Fu ZY, Kao KC, Huang CC, Tsai YH, Hsieh MJ. Relapsing Polychondritis with Initial Presentations of Recurrent Negative-Pressure Pulmonary Edema and Acute Respiratory Failure. *Respir Care* 2015;60(5):e101–e104.
66. Hu HC, Liu HC, Chen YH, Huang CC, Wang GH, Chou LT, Hsieh MJ, Chen NH, Yang CT, Kao KC*. The impact of aerosolized mucolytic agents on the airflow resistance of bacterial filters used in mechanical ventilation. *J Formos Med Assoc* 2015;114:717-721. (Corresponding author)
-

-
67. Kao KC*, Hu HC, Chang CH, Hung CY, Chiu LC, Li SH, Lin SW, Chung LP, Wang CW, Li LF, Chen NH, Ya CT, Huang CC, Tsai YH. Diffuse alveolar damage associated mortality in selected acute respiratory distress syndrome. *Crit Care* 2015;15;19:228. (First & Corresponding author)
 68. Wang SY, Chang CH, Hu HC, Kao KC, Feng PH, Hsu PC, Chiu LC, Hung CY, Chen NH, Huang CC, Ya CT, Tsai YH. Outcomes of Mechanical Ventilated Non-Small Cell Lung Cancer Patients Receiving Tyrosine Kinase Inhibitors in Intensive Care Units. *Thorac Med* 2015;30:125-133.
 69. Chang CH, Tsao, KC, Hu HC, Huang CH, Kao KC, Chen NH, Yang CT, Tsai YH, Hsieh MJ. Procalcitonin and C-reactive protein cannot differentiate bacterial or viral infection in COPD exacerbations requiring emergency department visits. *International journal of COPD* 2015;10:767-774.
 70. Chuang MS, Liang CC, Hsiao HF, Kao KC*. Use of a new nasal high-flow oxygen in a necrotizing pneumonia complicated by acute respiratory failure. *Taiwan Crit. Care Med.* 2015;15:1. (Corresponding author)
 71. Lin SW, Chou YT, Kao KC, Chuang LP, Yang CM, Hu HC, Huang CC, Yang CT, Chen NH. Immediate and Long-term Neurocognitive Outcome in Patients with Obstructive Sleep Apnea Syndrome After Continuous Positive Airway Pressure Treatment. *Indian J Otolaryngol Head Neck Surg* 2015;67(suppl):S79-S85.
 72. Lin CY, Fu JY, Kao KC, Chen NH, Huang CC. Invasive Tracheobronchial Aspergillosis in Its Most Severe Form Presenting as Hypoxemic Respiratory Failure-Report of 2 Cases and Review of the Literature. *Thorac Med* 2015; 30:382-389.
 73. Chiu LC, Tsai FC, Hu HC, Chang CH, Hung CY, Lee CS, Li SH, Lin SW, Li LF, Huang CC, Chen NH, Ya CT, Chen YC, Kao KC*. Survival Predictors in Acute Respiratory Distress Syndrome with Extracorporeal Membrane Oxygenation. *Ann Thorac Surg.* 2015;99:243-250. (Corresponding author)
 74. Fu CM, Chang CH, Fan PC, Tsai MH, Lin SM, Kao KC, Tian YC, Hung CC, Fang JT, Yang CW, Chen Y. Prognosis of critically ill cirrhotic versus non-cirrhotic patients: a comprehensive score-matched study. *BMC Anesthesiol.* 2014;17;14:123.
 75. Liu YY, Li LF, Fu JY, Kao KC, Huang CC, Chien Y, Liao YW, Chiou SH, Chang YL. Induced Pluripotent Stem Cell Therapy Ameliorates Hyperoxia-Augmented Ventilator-Induced Lung Injury through Suppressing the Src Pathway. *PLoS One.* 2014;13;9(10):e109953.
 76. Wu MY, Lin PJ, Tseng YH, Kao KC, Hsiao HL, Huang CC. Venovenous extracorporeal life support for posttraumatic respiratory distress syndrome in adults: the risk of major hemorrhages. *Scand J Trauma Resusc Emerg Med.* 2014;2;22(1):56.
 77. Jen LC, Li SY, Kao KC*. Cost-effectiveness comparison of risk groups: a case study involving acute respiratory distress syndrome (ARDS). *Taiwan J Public Health.* 2014;33(4):445-453. (Non-SCI) (Corresponding author)
 78. Li SH, Kao KC, Ho KC, Hsu PC, Chen NH, Yang CT, Liu CY. The Impact of Whole-body ¹⁸F-Fluorodeoxy-D Glucose Positron Emission Tomography – Computed Tomography (PET-CT) on the Staging and Outcome of Small Cell Lung Cancer Patients. *Thorac Med* 2014;29:127-143.
 79. Li LF, Liu YY, Kao KC, Wu CT, Chang CH, Hung CY, Yang CT. Mechanical ventilation augments bleomycin-induced epithelial-mesenchyme transition through the Src pathway. *Lab Invest* 2014;94(9):1017-1029.
-

-
80. Hsiao HF, Lin HL, Cho LT, [Kao KC](#), Tsai YH, Hsu KH. The attitudes of the respiratory therapists and associated factors toward to the care of DNR and terminal extubation patients. *Journal of Respiratory Therapy* 2014;13(2):1-10.
 81. Hsiao CC, Chang CH, Fan PC, Ho HT, Jenq CC, [Kao KC](#), Chiu LC, Lee SY, Hsu HH, Tian YC, Hung CC, Fa JT, Yang CW, Tsai FC, Chen YC. Prognosis of patients with acute respiratory distress syndrome (ARDS) on extracorporeal membrane oxygenation: the impact of urine output on mortality. *Ann Thorac Surg* 2014; 97(6):1939-1944.
 82. Lin YF, Yang CH, Sindy H, Lin JY, Rosaline Hui CY, Tsai YC, Wu TS, Huang CT, [Kao KC](#), Hu HC, Chiu CH, Hung SI, Chung WH. Severe cutaneous adverse reactions related to systemic antibiotics. *Clin Infect Dis*. 2014;58(10):1377-1385.
 83. Li LF, Lai YT, Chang CH, Lin MC, Liu YY, [Kao KC](#), Tsai YH. Neutrophil elastase inhibitor reduces ventilation-induced lung injury via nuclear factor- κ B and NF- κ B repressing factor in mice. *Exp Biol Med (Maywood)*. 2014;11;239(8):1045-1057.
 84. Huang CW, Kuo KT, Lin CM, Shih CW, [Kao KC](#), Huang CT. Clinical presentation. *Thorax*. 2013;68(10):980-1.
 85. Lee CS, Chen CH, [Kao KC](#), Lin SY, Chiu LC, Liu CY, Chen NH, Huang CC, Tsai YH, Yang CT. Comparison with of Weekly Vinorelbine and Weekly Docetaxel, Each with Cisplatin for Locally Advanced Non-Small Cell Lung Cancer in Patients with Concurrent Chemoradiotherapy. *Thorac Med* 2013;28:260-69.
 86. Lin SW, Chen YL, [Kao KC](#), Yang CT, Chuang LP, Chou YT, Lai SC, Chen RS, Chen NH. Diseases coming to a sleep center with symptoms related to restless legs syndrome. *PLoS One* 2013;19;8(8):e71499.
 87. Li JM, [Kao KC](#), Li LF, Yang TM, Wu CP, Hing YM, Jia WW, Yang CT. MicroRNA-145 regulates oncolytic herpes simplex virus-1 for selective killing of human non-small cell lung cancer cells. *Virology*. 2013;22:10(1):241.
 88. Liu YY, Li LF, Yang CT, Lu KH, Huang CC, [Kao KC](#), Chiou SH. Suppressing NF- κ B and NKRFB Pathways induced Pluripotent Stem Cell Therapy in Mice with Ventilator-Induced Lung Injury. *PLoS One* 2013;26;8(6):e66760.
 89. Chang CH, [Kao KC*](#), Hu HC, Hung CY, Li LF, Wu CY, Wang CW, Fu JY, Huang CC, Chen NH, Yang CT, Tsai YH. The utility of surgical lung biopsy in cancer patients with acute respiratory distress syndrome. *J Cardiothorac Surg*. 2013;16;8(1):128. (Co-first author)
 90. Chiu LC, Huang TH, [Kao KC](#), Lee CS, Huang CC, Yu CT, Chen NH, Yang CT, Tsai YH, Liu CY. Continuous Epidermal Growth Factor Receptor Tyrosin Kinase Inhibitor Treatment Not Hinder the Survival of Patients with Primary Lung Cancer Adenocarcinoma despite Indolent New Lesions. *Thorac Med* 2013; 28:73-88.
 91. Hsu PC, Chen CH, Ho KC, Wu YC, [Kao KC](#), Liu CY, Chang WC, Tsai YH, Yang CT. Efficacy Comparison of Conventional Computed Tomography and Whole-Body 18 F-Fluorodeoxyglucose Positron Emission Tomography for Staging in Non-Small Cell Lung Cancer Patients. *Thorac Med* 2013;28:8-17.
 92. Li LF, Liu YY, Yang CT, Chien Y, Twu NF, Wang ML, Wang CY, Huang CC, [Kao KC](#), Hsu HS, Wu CW, Chiou SH. Improvement of ventilator-induced lung injury by IPS cell-derived conditioned
-

-
- medium via inhibition of PI3K/Akt pathway and IP-10-dependent paracrine regulation. *Biomaterials*. 2013;34(1):78-91.
93. Yang WC, Chen YT, Chang WW, Chang CH, Fan PC, Lee SY, Kao KC, Tian YC, Hung CC, Fang JT, Yang CW, Chen YC, Wang PN. Outcome predictors of allogeneic hematopoietic stem cell transplant. *Am J Med Sci*. 2013;345(1):33-38.
94. Chiu LC, Su IH, Kao KC, Liu CY, Yang CT, Huang CD. Chronic obstructive pulmonary disease with acute respiratory failure and an incidental finding of tracheobronchomalacia: A case report. *Thorac Med* 2012;27:349-356.
95. Lin JI, Kao KC, Wang CW, Liu CY, Yang CT, Chiu KC. A Very Rare Case of Combined Pleomorphic Carcinoma and Small Cell Lung Carcinoma: A Case Report. *Thorac Med* 2012;27:276-281.
96. Huang CC, Chen NH, Li LF, Yang CT, Hsiao HF, Chen YH, Lin HL, Kao KC*. Effects of cardiac output levels on the measurement of transpulmonary thermodilution cardiac output in patients with acute lung injury. *J Trauma Acute Care Surg*. 2012;73(5):1236-1241. (Corresponding author)
97. Li LF, Kao KC, Yang CT, Huang CC, Liu YY. Ethyl pyruvate reduces ventilation-induced neutrophil infiltration and oxidative stress. *Exp Biol Med*. 2012;1;237(6):720-727.
98. Hung CY, Wang PN, Hu HC, Huang CC, Hsieh MJ, Yang CT, Tsai YH, Kao KC*. Comparison between transbronchial biopsy and open lung biopsy in ventilated patients with diffuse pulmonary infiltrates after hematopoietic stem cell transplantation. *Thorac Med* 2012;27:131-142. (Corresponding author)
99. Wu CY, Hu HC, Ko PJ, Fu JY, Wu CF, Liu YH, Li HJ, Kao CC, Kao KC, Yu SY, Chang CJ, Hsieh HC*. Risk factors and possible mechanisms of superior vena cava intravenous port malfunction. *Ann Surg* 2012;255(5):971-975.
100. Hung CY, Kao KC, Wang PW, Hu HC, Hsieh MJ, Fu JY, Li LF, Huang CC, Tsai YH, Yang CT. Invasive fungal infection among hematopoietic stem cell transplantation patients with mechanical ventilation in the intensive care unit. *BMC Infect Dis*. 2012;18;12:44. (Co-first author)
101. Huang CH, Hu HC, Hsieh MJ, Huang CT, Cho HY, Hsiao HF, Yang CT, Tsai YH, Huang CC, Kao KC*. High-frequency oscillatory ventilation as rescue modality for refractory hypoxemia in transfusion-related acute lung injury. *Resp Care* 2012;57(5):798-801. (Corresponding author)
102. Chen YH, Lin HL, Hsiao HF, Chou LT, Kao KC, Huang CC, Tsai YH. Effects of exercise training on pulmonary mechanics and functional status in patient with prolonged mechanical ventilation. *Respir Care* 2012;57(5):723-734.
103. Kao KC, Yang CT, Hu HC, Ting HC, Huang CT, Chou LT, Hsiao HF, Li LF, Tsai YH, Huang CC. Resolution of Organ Functional Scores to Predict the Outcomes in Adult Acute Respiratory Distress Syndrome Patients Receiving High-frequency Oscillatory Ventilation. *J Trauma*. 2011;71(6):1536-1542.
104. Kao KC, Hu HC, Fu JY, Hsieh MJ, Wu YK, Chen YC, Chen YH, Huang CC, Yang CT, Tsai YH. Renal replacement therapy in prolonged mechanical ventilation patients with renal failure in Taiwan. *J Crit Care*. 2011;26(6):600-607.
105. Li LF, Yang CT, Huang CC, Liu YY, Kao KC, Lin HC. Low-molecular-weight heparin reduces hyperoxia-augmented ventilator-induced lung injury via serine/threonine kinase-protein kinase B. *Resp Res*. 2011;12(1):90.
-

-
106. Li LF, Huang CC, Liu YY, Lin HC, Kao KC, Yang CT, Liao SK. Hydroxyethyl starch reduces high stretch ventilation-augmented lung injury via vascular endothelial growth factor. *Transl Res*. 2011;157(5):293-305.
 107. Huang CC, Kao KC, Fu JY, Hsieh MJ. Effects of extravascular lung water on the measurement of transpulmonary thermodilution cardiac output in acute respiratory distress syndrome patients. *J Cardiothorac Vasc Anesth* 2011;25(3):481-485.
 108. Hung CY, Hu HC, Huang CC, Hsieh MJ, Yang CT, Kao KC*. Severe acute respiratory distress syndrome caused by influenza B virus in a healthy adult. *Thorac Med* 2011;26:147-152. (Corresponding author)
 109. Chiu CF, Huang CH, Tzeng CH, Chang CS, Liu CY, Wu CL, Hung CC, Liu CC, Huang CT, Lee CY, Yu CJ, Huang CC, Lee CM, Chang FY, Wang FD, Huang FY, Hung GY, Kung HC, Lin HH, Tien HF, Chen JS, Tang JL, Young JH, Lin J, Yang KY, Kao KC, Luh KT, Shih LY, Hsiao LT, Wang LS, Huang LM, Chang MC, Yen MY, Lee PI, Dunn P, Chen PM, Hsueh PR, Chen PY, Huang PY, Chang SC, Lin SF, Ku SC, Yang SP, Hsieh SM, Chen TY, Chao TY, Chiou TJ, Lin TY, Hsieh WC, Hwang WS, Chen WT, Ko WC, Hwang WL, Lee WS, Wong WW, Kao WY, Chen YC, Chen YC, Lau YJ, Huang YC, Chuang YC, Tsai YH, Yu YB, Chan YJ, Liu YC. Guidelines for the use of antifungal agents in patients with invasive fungal infections in Taiwan--revised 2009. *J Microbiol Immunol*. 2010;43(3):258-263.
 110. Kao KC, Lin CY, Tian YC, Jenq CC, Chang MY, Chen YC, Fang JT, Huang CC, Tsai YH, Yang C Outcome scoring system for ARDS. *SHOCK* 2010;34(4):352-357. (Co-first authors)
 111. Wu YK, Tsai YH, Lan CC, Huang CY, Lee CH, Kao KC, Fu JY. Prolonged mechanical ventilation in respiratory care setting: a comparison of outcome between tracheostomized and translayange intubated patients. *Crit Care* 2010;14(2):R26.
 112. Huang CC, Kao KC, Hsu KH, Ko HW, Li LF, Hsieh MJ, Tsai YH. Effects of Hydroxyethyl Star Resuscitation on Extravascular Lung Water and Pulmonary Permeability in Sepsis-Related Acute Respiratory Distress Syndrome. *Crit Care Med* 2009;37(6):1948-1955.
 113. Wu YK, Kao KC, Hsu KH, Hsieh MJ, Tsai YH. Predictors of successful weaning from prolonged mechanical ventilation in Taiwan. *Respir Med* 2009;103(8):1189-1195.
 114. Lin CY, Kao KC, Tian YC, Jenq CC, Chang MY, Chen YC, Fang JT, Huang CC, Tsai YH, Yang C Respiration. The RIFLE Score Increases the Accuracy of Outcome Prediction in Patients with Acute Respiratory Distress Syndrome Undergoing Open Lung Biopsy. *Respiration* 2009;77(4):398-406.
 115. Huang CC, Fu JY, Hu HC, Kao KC, Chen NH, Hsieh MJ, Tsai YH. Prediction of fluid responsiveness in acute respiratory distress syndrome patients ventilated with low tidal volume and high positive end-expiratory pressure. *Crit Care Med*. 2008;36(10): 2810-2816.
 116. Kao KC, Huang CC, Tsai YH. The role of high-frequency oscillatory ventilation in adult patients with acute respiratory distress syndrome. *Taiwan Crit Care Med*. 2008;9:126-132.
 117. Fu JY, Cheng CH, Kao KC, Chen NH, Tsai YH, Huang CC. Comparison of New Impedance Cardiography versus Ventricular Angiography in Measuring Hemodynamic Variables. *Thorac Med* 2008;23:73-80.
 118. Yang CM, Wang CL, Kao KC, Wu YK, Tsai YH. Outcome of hematopoietic stem cell receptor who were mechanically ventilated and admitted to intensive care units. *J Formos Med Ass*
-

2007;106 (4):295-301.

119. Chen CH, Lin CH, Kao KC, John WC Chang, Thomas CY. Tsao. Phase II Study of a Biweekly Regimen of Vinorelbine and Cisplatin in Advanced Non-Small Cell Lung Cancer. *Chang Gung Med J*. 2007;30(3):249-255.
 120. Chou YT, Wang CL, Kao KC, Wu YK, Tsai YH. High Altitude Pulmonary Edema in a Patient with Previous Pneumonectomy. *J Formos Med Assoc* 2007;106 (4):320-322.
 121. Fu JY, Kao KC, Hu HC, Hsieh MJ, Huang CC. A Case of Fatal Acute Pulmonary Edema due to Unrecognized Peripartum Cardiomyopathy. *Thorac Med* 2007;22:66-72.
 122. Chen NH, Wang PC, Hsieh MJ, Huang CC, Kao KC, Chen YH, Tsai YH. The impact of severe acute respiratory syndrome (SARS) to the global health status of health care worker in Taiwan. *Infecti Control and Hospital Epidemiology* 2007;28(1):75-79.
 123. Kao KC, Wu YK, Huang CC, Hsieh MJ, Tsai YH. Recurrent Life Threatening massive Hemoptysis as a Presentation of Pulmonary Actinomycosis. *Chang Gung Med J* 2006;29(4 Suppl):66-70.
 124. Kao KC, Tsai YH, Wu YK, Huang CT, Shi MJ, Huang CC. High Frequency Oscillatory Ventilation for Surgical Patients with Acute Respiratory Distress Syndrome. *J Trauma*. 2006;61:837-843.
 125. Kao KC, Tsai YH, Huang CC. AIP or ARDS? Not just semantics. *Crit Care* 2006;10:423.
 126. Kao KC, Tsai YH, Wu YK, Chen NH, Hsieh MJ, Huang SF, Chuang CC. Open lung biopsy early-stage acute respiratory distress syndrome. *Crit Care*. 2006;19;10(4):R106.
 127. Wan YL, Kuo HP, Tsai YH, Wu YK, Wang CH, Liu CY, Kao KC, Ko SF. Eight Cases of Severe Acute Respiratory Syndrome Presenting as Round Pneumonia. *Am J Roentgenol* 2004;182:1567-1570.
 128. Hung MS, Kao KC, Tsai YH, Lee CH, Huang CC. Successful Conservative Treatment for a large Tracheal Laceration Caused by Endotracheal Cuff Overinflation. *Thorac Med* 2004;19:484-490.
 129. Lin CM, Tsai YH, Huang CC, Kao KC, Lin CK, Thomas Tsao CY. Relapsing Polychondritis with Acute Respiratory Failure – A case Report. *Thorac Med* 2002; 17:35-39.
 130. Chen YC, Hsu HH, Kao KC, Fang JT, Huang CC. Outcomes and APACHE II predictions for critically ill patients with acute renal failure requiring dialysis. *Renal Failure* 2001;23(1):61-70.
 131. Kao KC, Tsai YH, Lin MC, Huang CC, Thomas Tsao CY, Chen YC. Hypokalemic muscular paralysis causing acute respiratory failure due to rhabdomyolysis with renal tubular acidosis in a chronic glue sniffer. *Clinical Toxicology* 2000;38(6):679-684.
 132. Kao KC, Huang CC, Tsai YH, Lin MC, Thomas Tsao CY. Hyperkalemic Cardiac Arrest Successfully Reversed by Hemodialysis During Cardiopulmonary Resuscitation: Case Report. *Chang Gung Med J* 2000;23(9):555-559.
-