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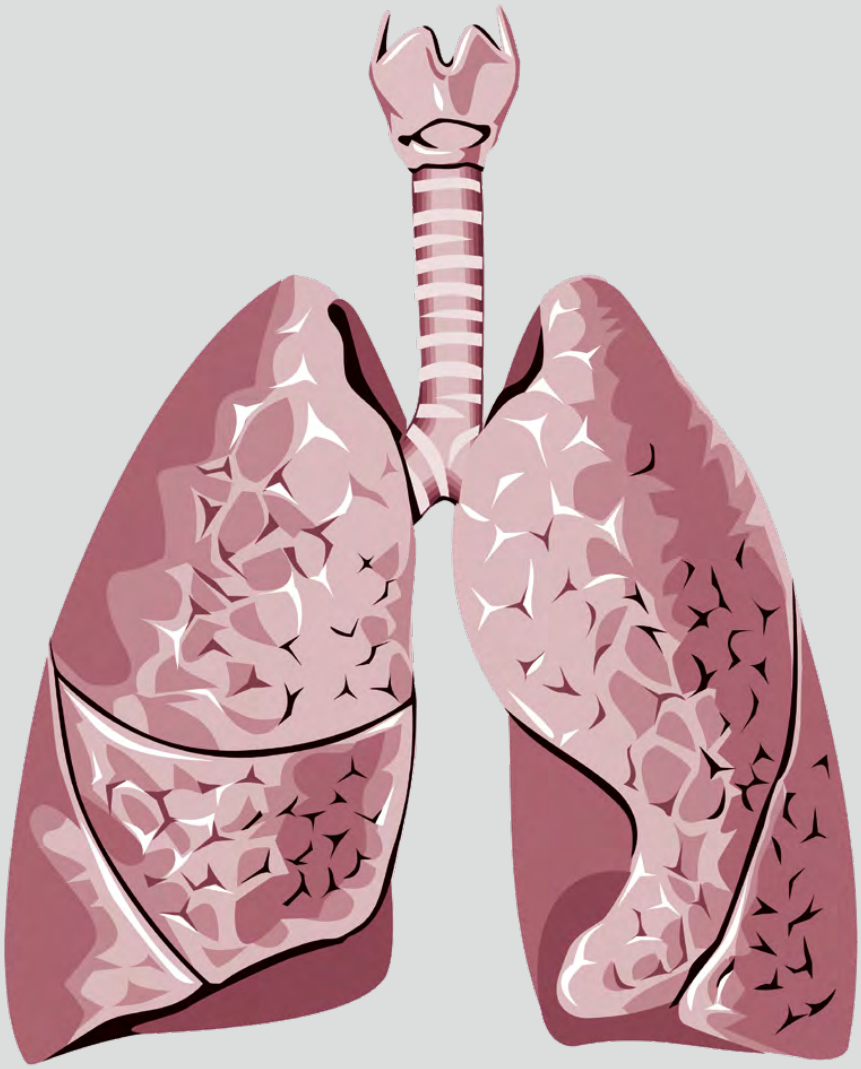

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CONTENTS

Recommendations for Use of Respiratory Syncytial Virus Vaccines in Older Adults: A Clinical Practice Recommendation

Po-Jui Chang[1,*], Kun-Ta Chou[3,4,*], Horng-Chyuan Lin[1,2], Jen-Yu Hung[5,6], Diahn-Warng Perng[3,4], Kuang-Yao Yang[3,4,7], Jung-Yien Chien[8], Yung-Hung Luo[3,4], Yuh-Min Chen[3,4]

Background: Respiratory syncytial virus (RSV) affects individuals of all ages, particularly adults. Prevention and management of RSV infections have therefore become critical. This narrative review provides evidence-based recommendations for RSV vaccination in adults, with a focus on Taiwan's epidemiological characteristics.

Methods: The PubMed, Embase, and the Cochrane Library databases were searched for studies, clinical trials, and guidelines on RSV infection and vaccination in adults that were published before February 2025. Selected articles were critically appraised, and data were synthesized to generate recommendations. Nine experts in pulmonology, respiratory infectious diseases, and thoracic oncology—representing the Taiwan Society of Pulmonary and Critical Care Medicine—reviewed the evidence, participated in structured discussions, and reached a consensus through iterative feedback.

Results: On the basis of epidemiological data, clinical trials, and global guidelines, tailored vaccination strategies were proposed for older adults and at-risk populations. Taiwan has no fixed RSV infection season; thus, RSV vaccination may be administered year-round. Coadministration with RSV and influenza vaccination between August and October is recommended for individuals seeking protection during the influenza season. Vaccination is recommended for adults aged ≥75 years and those aged 60-74 years with risk factors, particularly chronic pulmonary diseases (chronic obstructive pulmonary disease, asthma, pulmonary fibrosis, bronchiectasis, and lung cancer). It may also be considered for adults aged 60-74 years with other risk factors. For adults aged 50-59 years with risk factors, RSV

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vaccine indications have recently been approved and warrant further discussion. For patients with lung cancer, RSV vaccination should be administered ≥2 weeks before each treatment cycle. For patients with acute exacerbations of chronic pulmonary diseases, RSV vaccination should be delayed until corticosteroid dosage is tapered to ≤10 mg of prednisolone/day or equivalent.

Conclusion: Our recommendations may guide RSV vaccination in Taiwan to reduce the disease burden in older adults and high-risk groups. ***(Thorac Med 2025; 40: 239-255)***

Key words: respiratory syncytial virus (RSV), vaccination, guidelines, risk factors, older adults

Real-world Efficacy of Dacomitinib in Patients with Previously *EGFR*-TKI-treated Pulmonary Adenocarcinoma

Chien-Yeh Chi[1,2,3], Chi-Lu Chiang[2, 3], Yuh-Min Chen[2,3], Yung-Hung Luo[2,3]

Introduction: Multiple studies have reported that retreatment with erlotinib is an alternative option for patients with *epidermal growth factor receptor* (*EGFR*)-mutant non-small cell lung cancer (NSCLC) who had benefited from previous *EGFR*-tyrosine kinase inhibitor (TKI) therapy and progressed after chemotherapy. Dacomitinib is a second-generation *EGFR*-TKI for the first-line treatment of *EGFR*-mutant advanced NSCLC. However, the efficacy of dacomitinib for previously *EGFR*-TKI-treated pulmonary adenocarcinoma remains unclear in real-world practice.

Methods: In this retrospective study, 21 enrolled patients who had progressed on previous *EGFR*-TKI and chemotherapy were treated with dacomitinib 45 mg or 30 mg orally daily until disease progression or intolerability. The progression-free survival (PFS), time-to-treatment failure (TTF), and overall survival (OS) from dacomitinib initiation were analyzed.

Results: Among the 21 enrolled patients with advanced pulmonary adenocarcinoma, there were 9 patients with an exon 19 deletion, 11 patients with an L858R mutation, and 1 patient with an exon 18 G719X mutation. Ten patients received dacomitinib 45 mg initially, among whom, 1 patient's dacomitinib was reduced to 30 mg due to adverse events. The other 11 patients received dacomitinib 30 mg without dose reduction. Four partial responses were documented (a 19% objective response rate; 95% confidence interval [CI], 5.4 to 41.9). The duration of response was 4.6 months (95% CI, 0 to 9.9). Of the 4 patients with a partial response, 3 had an original sensitizing *EGFR* L858R mutation and 1 had an exon 19 deletion; 0 of the 7 patients with acquired *EGFR* resistance mutations (T790M) met the response criteria. The median PFS, TTF, and OS were 1.6 months (95% CI, 1.4 to 1.86), 1.87 months (95% CI, 0.9 to 2.8), and 10.2 months (95% CI, 5 to 15.4), respectively. One partial intracranial response (7.1% response rate; 95% CI, 0.2 to 33.9) was recorded among 14 patients with brain metastases. Median PFS, TTF, and OS of patients with an Eastern Cooperative Oncology Group (ECOG) performance status (PS) of 2 compared to those with an ECOG PS of 1 were 0.3 vs. 1.87 months (hazard ratio [HR]=5.3, *P*=0.021), 0.3 vs.

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2.5 months (HR=8.5, *P*=0.002), and 0.3 vs. 17.5 months (HR=38.9, *P*=0.001), respectively. Furthermore, patients with an ECOG PS of 2 had a higher risk of death compared to those with an ECOG PS of 1 in multivariable analysis (HR=16.4 [95% CI=1.71-158.13]; *P*=0.015).

Conclusion: This study found that dacomitinib in previously *EGFR*-TKI-treated pulmonary adenocarcinoma patients had a modest benefit in real-world practice. Higher risks of disease progression, treatment failure for dacomitinib retreatment, and death were found in patients with a worse PS. ***(Thorac Med 2025; 40: 256-272)***

Key words: Pulmonary adenocarcinoma, epidermal growth factor receptor-tyrosine kinase inhibitor, *EGFR* mutation, dacomitinib, retreatment

Impact of Mechanical Power on 28-Day Mortality in ARDS Patients: A Cohort Study of Diverse Etiologies

Chang-Wei Wu[1], Shwu-Jen Lin[2], Sheng-Yuan Ruan[3], Jung-Yien Chien[3], Lu-Cheng Kuo[3], Chun-Kai Huang[3], Shih-Chi Ku[3], Ying-Chun Chien[3*]

Introduction: Recent studies have reported an association between mechanical power (MP) and mortality in patients with acute respiratory distress syndrome (ARDS). The aim of our study was to explore the relationships between various ventilator parameters and patient outcomes in mechanically ventilated ARDS patients across different etiologies.

Methods: This single-center retrospective cohort study included adult patients who underwent mechanical ventilation for community-acquired pneumonia-induced ARDS between June 2019 and July 2021. To investigate etiological differences, we also included patients with influenza-related ARDS that developed during the influenza epidemic in 2016. Logistic regression was used to evaluate the association between 28-day mortality and ventilator parameters.

Results: The study included 107 patients, categorized into 3 groups: COVID-19-related ARDS (N=33), influenza-related ARDS (N=41), and ARDS of other etiologies (N=33). The overall 28-day mortality rate was 15.9%. The group with ARDS of other etiologies had a higher Charlson Comorbidity Index score. In multivariable logistic regression analysis, MP on the first day was independently associated with 28-day mortality, with an odds ratio of 1.08 (p=0.04); no other factors were associated. Ventilator parameters did not significantly differ between patients with different underlying etiologies.

Conclusion: Higher MP was associated with increased 28-day mortality in COVID-19, influenza, and other etiology-related ARDS patients. ***(Thorac Med 2025; 40: 273-283)***

Key words: ARDS, COVID-19, influenza, mechanical power, mortality

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Comparative Survival Analysis of Using Different Doses of Cisplatin and Carboplatin Doublets as Adjuvant Chemotherapy in Resected Early-Stage Non-Small Cell Lung Cancer: A Single Center Retrospective Cohort Study

Bo-Kai Zhong[1], I-Lin Tsai[1], Chien-Yu Lin[1], Chien-Chung Lin[1], Chin-Wei Kuo[1]
Szu-Chun Yang[1]

Background: Adjuvant chemotherapy plays a crucial role in improving outcomes for patients with resected early-stage non-small cell lung cancer (NSCLC). While standard-dose cisplatin is commonly used, the effectiveness and safety of low-dose cisplatin, particularly in Asian populations, remains unclear. This study aimed to compare the clinical efficacy and adverse event profiles of low-dose cisplatin, standard-dose cisplatin, and carboplatin in resected early-stage NSCLC patients.

Methods: This single-center retrospective cohort study enrolled 253 early-stage NSCLC patients who received platinum-based adjuvant chemotherapy between April 2011 and March 2023. Patients were categorized into 3 groups based on their chemotherapy regimen: low-dose cisplatin (<75 mg/m²), standard-dose cisplatin (75–100 mg/m²), and carboplatin. Event-free survival (EFS) and overall survival (OS) were analyzed using Kaplan-Meier methods and multivariable Cox proportional hazards regression. Adverse events were assessed using the Common Terminology Criteria for Adverse Events, 5th edition.

Results: Kaplan-Meier survival analyses showed no statistically significant differences in EFS among the 3 groups (P=0.064). Low-dose cisplatin was not associated with a shorter EFS (HR=1.02, 95% CI=0.71-1.49, P=0.904), but was associated with a shorter OS compared to standard-dose cisplatin (HR=2.02, 95% CI=1.04-3.90, P=0.037). Patients who received low-dose cisplatin experienced fewer adverse events and had a higher chemotherapy completion rate than those receiving standard-dose cisplatin. Carboplatin was associated with a higher risk of disease recurrence in patients with a BMI <24 and without high-risk recurrence features compared to standard-dose cisplatin.

Conclusion: Low-dose cisplatin as adjuvant chemotherapy did not compromise clinical outcomes in resected early-stage NSCLC patients and reduced the incidence of adverse events. A prospective randomized trial is warranted to confirm these findings. ***(Thorac Med 2025; 40: 284-294)***

Key words: Non-small cell lung cancer, adjuvant chemotherapy, platinum doublet chemotherapy, survival

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Case Report: Recurrent Spontaneous Pneumothorax in a 35-Year-Old Female with Radiologic and Clinical Features Suggestive of Birt-Hogg-Dubé Syndrome

Cheng-Wei Huang[1], Ching-Hong Tsai[2], Kai-Wei Chang[3]

A 35-year-old female presented with recurrent spontaneous pneumothorax and characteristic radiologic findings suggestive of Birt-Hogg-Dubé Syndrome (BHDS). Computed tomography scans revealed multiple thin-walled pulmonary cysts, predominantly in the basomedial lobes, a hallmark of BHDS. Her father had similar clinical and radiological manifestations, suggesting hereditary components. This case highlights the importance of recognizing BHDS as a differential diagnosis for recurrent pneumothorax and the role of imaging and clinical evaluation in the diagnostic process. ***(Thorac Med 2025; 40: 295-298)***

Key words: multiple cystic lung disease, Birt-Hogg-Dubé syndrome, pneumothorax

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Significant Resolution of Pulmonary Langerhans cell Histiocytosis after Smoking Cessation

Tzu-Chiang Wu[1], Chen Chang[2], Chung-Ta Lee[2], Tang-Hsiu Huang[1]

Pulmonary Langerhans cell histiocytosis (PLCH) is an uncommon cystic lung disease predominantly affecting adult smokers, and is characterized histologically by the excessive accumulation of Langerhans-like cells around small airways. Some patients may experience extrapulmonary involvement, but PLCH generally has a better prognosis than its systemic counterpart and may improve or resolve after smoking cessation. This case report described a 62-year-old woman with a 30-pack-year smoking history. Her histology-proven PLCH manifested as a troublesome nonproductive cough and radiographically as multiple nodular and ground-glass opacities mixed with cysts of varying sizes, primarily in the upper and middle lung fields, with no systemic involvement. Following smoking cessation, her cough and radiographic abnormalities significantly resolved. This case report underscores the strong association of PLCH with smoking and highlights the crucial role of smoking cessation in its management. ***(Thorac Med 2025; 40: 299-305)***

Key words: cystic lung disease, histiocytes, Langerin, smoking

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Cryptogenic Organizing Pneumonia Presenting as Progressive Bilateral Pneumonia and Type 1 Respiratory Failure: A Case Report

Shang-Hsun Hsieh[1], Yu-Sheng Chang[2], Chun-Nin Lee[3]

Cryptogenic organizing pneumonia (COP) is a rare lung disease often misdiagnosed as infectious pneumonia due to similar symptoms and imaging findings. It should be considered in patients with pneumonia that do not respond to antibiotics and have negative microbiological test results. Early steroid treatment and multidisciplinary care are essential for better outcomes. Here, we reported a 52-year-old female with progressive bilateral pneumonia and type 1 respiratory failure. Despite treatment with broad-spectrum antibiotics, her condition worsened, and she required mechanical ventilation. After excluding infections and autoimmune causes, COP was suspected. The patient responded well to corticosteroids and later to immunosuppressive therapy, leading to significant clinical improvement. ***(Thorac Med 2025; 40: 306-310)***

Key words: Cryptogenic organizing pneumonia, interstitial lung disease, steroid therapy, immunosuppressant, respiratory failure

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