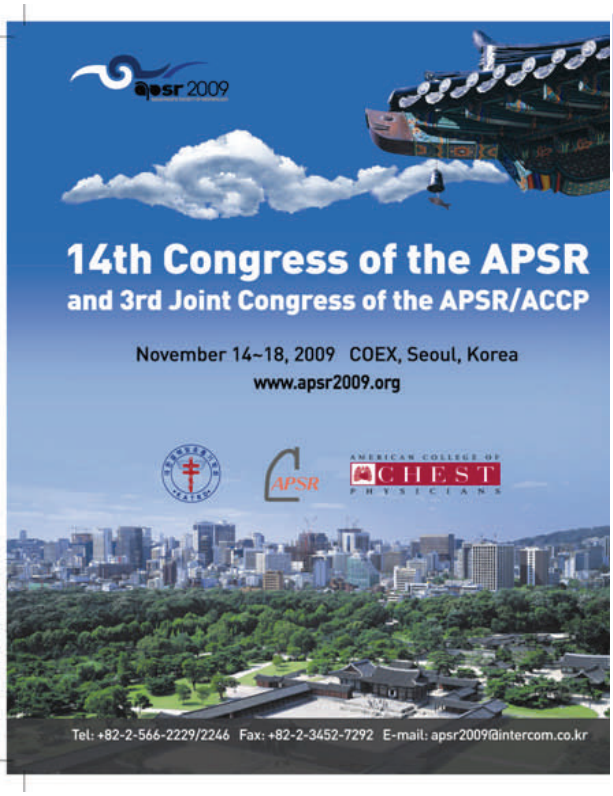
APSR RESPIRATORY UPDATES

Volume 1, Issue 2 Newsletter Date: October 2009

APSR EDUCATION PUBLICATION

Inside this issue: Lung Cancer

Screening for epidermal growth factor receptor mutations in lung cancer	2
Gefitinib or carboplatin-paclitaxel in pulmonary adenocarcinoma	2
Guidelines for management of malignant pleural mesothelioma	2
Positron emission tomography in staging early lung cancer	3
Preoperative staging of lung cancer with combined PET-CT	3
Endobronchial ultrasound-guided transbronchial needle aspiration of hilar lymph nodes	3
Cetuximab plus chemotherapy in patients with advanced non-small cell lung cancer	4
The IASLC lung cancer staging project: proposal for a new international lymph node map	4
Cisplatin plus gemcitabine with bevacuzimab for non-squamous non-small cell lung cancer	4
Differential efficacy of pemetrexed according to non-small cell lung cancer histology	5



Maintenance pemetrexed plus best supportive care versus placebo plus best supportive care for non-small-cell lung cancer: a randomised, double-blind, phase 3 study

Authors: Ciuleanu T et al.

Comment: The role of maintenance chemotherapy for advanced non-small cell lung cancer is uncertain. This sponsored randomised double-blind multicentre study of patients with stage IIIB or IV disease, who had not progressed on four cycles of platinum-based chemotherapy, compared pemetrexed plus best supportive care with placebo plus best supportive care until disease progression. The authors reported that maintenance therapy with pemetrexed was well tolerated and offered improved progression-free and overall survival compared with placebo in patients with advanced non-small-cell lung cancer.

Reference: Lancet 2009; Sep 18 Epub ahead of print, doi:10.1016/S0140-6736(09)61497-5

URL: www.thelancet.com/journals/lancet/article/PIIS0140-6736(09)61497-5/fulltext

Screening for epidermal growth factor receptor mutations in lung cancer

Authors: Rosell R et al.

Comment: There is increasing evidence that mutations in the epidermal growth factor receptor (EGFR) gene imply sensitivity to EGFR tyrosine kinase inhibitors (TKIs) in patients with NSCLC. This study from Spain evaluated the feasibility of large-scale central laboratory screening (2005 - 2008) for EGFR mutations in cancers from 2105 patients at 129 institutions. EGFR mutations were present in 16.6% of patients, and were more frequent in women (69.7%), never smokers (66.6%), and in adenocarcinomas (80.9%). The study demonstrates that large-scale screening of patients with lung cancer for EGFR mutations is feasible.

Reference: N Engl J Med 2009; 361: 958-67.

URL: www.content.nejm.org/cgi/content/full/361/10/958

Gefitinib or carboplatin-paclitaxel in pulmonary adenocarcinoma

Authors: Mok TS et al.

Comment: Modern lung cancer management includes consideration of the use of EGFR tyrosine kinase inhibitors (TKIs) for NSCLC. Several uncontrolled studies have suggested that first-line treatment with EGFR TKIs may have a role in a subset of patients with NSCLC. In this open label phase III study, previously untreated East Asian patients with advanced adenocarcinoma, who were non-smokers or former light smokers received either gefitinib or carboplatin-paclitaxel. The authors report that 12-month progression-free survival was 24.9% with gefitinib compared to 6.7% with carboplatin-paclitaxel, thereby meeting the primary objective of showing non-inferiority of gefitinib. The presence of an EGFR mutation in the tumour predicted a better response to gefitinib.

Reference: N Engl J Med 2009; 361: 947-57.

URL: www.content.nejm.org/cgi/content/full/361/10/947

Guidelines of the European Respiratory Society and the European Society of Thoracic Surgeons for management of malignant pleural mesothelioma

Authors: Scherpereel A et al.

Comment: Malignant pleural mesothelioma is increasingly seen in clinical respiratory practice as a legacy of the latency between past exposure to asbestos and disease. Due to its poor prognosis, debate continues regarding optimal diagnostic, management and therapeutic strategies. This is a timely set of European guidelines for clinicians, on ways to best diagnose mesothelioma and undertake staging and evaluation assessments in order to help make decisions on optimum therapeutic options.

Reference: Eur Respir J 2009; Aug 28 Epub Ahead of print, doi: 10.1183/09031936.00063109

URL: erj.ersjournals.com/cgi/rapidpdf/09031936.00063109v1.pdf

To advertise, subscribe a colleague or to unsubscribe please contact :Secretariat, Asian Pacific Society of Respirology, Yoshikawa Bldg. No. 2, 2-9-8 Hongo, Bunkyo-ku, Tokyo, Japan

Positron emission tomography in staging early lung cancer: a randomized trial

Authors: Maziak DE et al.

Reference: Ann Intern Med 2009; 151: 221-8, W-48.

URL: www.annals.org/cgi/content/full/151/4/221

AND

Preoperative staging of lung cancer with combined PET-CT

Authors: Fischer B et al.

Reference: N Engl J Med 2009; 361: 32-9.

URL: content.nejm.org/cgi/content/full/361/1/32

Comment: These two reports are the latest randomised studies of the role of PET-CT in the staging of early lung cancer. They illustrate the improved performance of PET-CT for staging lung cancer with resultant changes in patient management. The data also illustrates the possibility of incorrect upstaging, reinforcing the constant need for careful clinical judgement and acumen in interpreting test results. Nonetheless, these studies provide further evidence for appropriate use of PET-CT, where available, in this clinical setting.

Efficacy of endobronchial ultrasound-guided transbronchial needle aspiration of hilar lymph nodes for diagnosing and staging cancer

Authors: Ernst A et al.

Comment: An important study from some of the world-leaders in endobronchial ultrasound TBNA of thoracic lesions. In this series of cases, the investigators demonstrate that EBUS-TBNA of either enlarged hilar lymph nodes visible on CT, or hilar nodes that are PET-positive, provides diagnostic accuracy similar to that achieved for mediastinal nodes. However, it remains to be seen whether real-life experience will mirror that of these leading edge practitioners, particular since the technology is still gradually diffusing into the lung cancer community, and it is expected that there will be a learning curve.

Reference: J Thorac Oncol 2009; 4: 947-50.

URL: journals.lww.com/jto/Abstract/2009/08000/Efficacy_of_Endobronchial_Ultrasound_Guided.4.aspx

Cetuximab plus chemotherapy in patients with advanced non-small-cell lung

Authors: Pirker R et al.

Comment: This study highlights the increasing therapeutic armamentarium for lung cancer, based on biological therapies. This multicentre open-label phase III trial randomised chemotherapy-naive patients with advanced EGFR-expressing "wet" IIIB or stage IV NSCLC to chemotherapy plus cetuximab or chemotherapy alone. Cetuximab is a novel monoclonal antibody targeting EGFR, and works differently from the oral EGFR tyrosine kinase inhibitors. The authors report that chemotherapy plus cetuximab resulted in slightly longer survival than chemotherapy alone (median 11.3 months vs 10.1 months; hazard ratio for death 0.871 [95% CI 0.762-0.996]).

Reference: Lancet 2009; 373: 1525-31.

URL: www.thelancet.com/journals/lancet/article/PIIS0140-6736(09)60569-9/fulltext

The IASLC lung cancer staging project: a proposal for a new international lymph node map in the forthcoming seventh edition of the TNM classification for lung cancer

Authors: Rusch VW et al.

Comment: The International Association for the Study of Lung Cancer (IASLC) has undertaken a project across the globe, which has culminated in the new 7th revision of the TNM lung cancer staging system. The data underpinning the revisions has been published in a series of articles, which are available from the Journal of Thoracic Oncology website (http://journals.lww.com/jto). This new lymph node map publication reconciles differences between current maps and suggests precise anatomical definitions for each lymph node station. The grouping of lymph node stations into "zones" for the purposes of future survival analyses is also proposed.

Reference: J Thorac Oncol 2009; 4: 568-77.

URL: journals.lww.com/jto/Fulltext/2009/05000/The_IASLC_Lung_Cancer_Staging_Project__A_Proposal.4.aspx

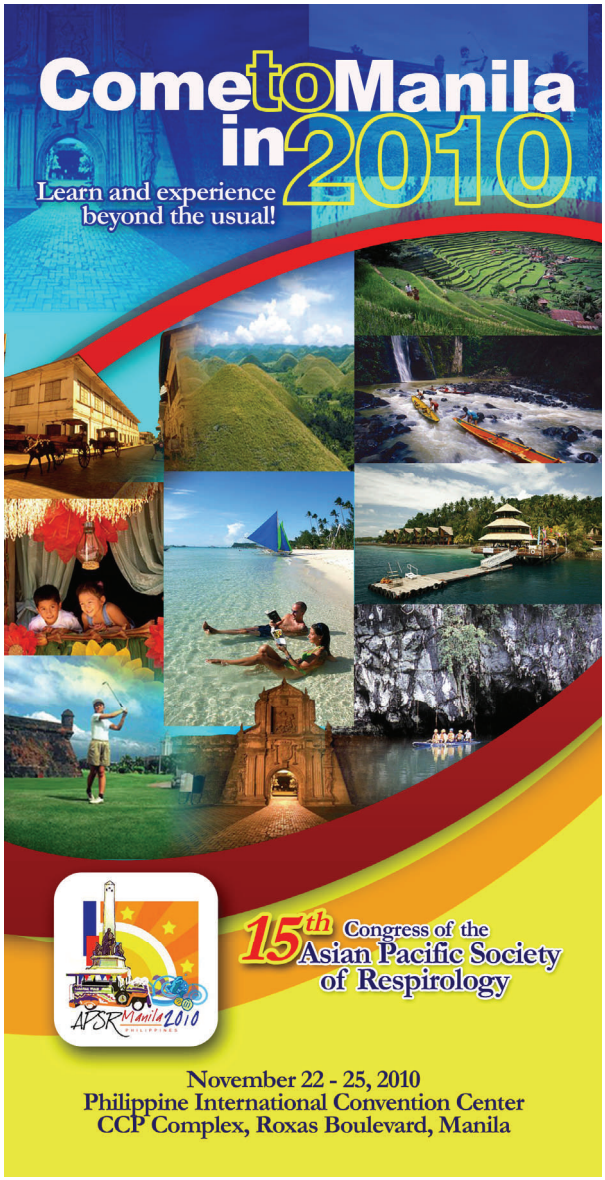
Phase III trial of cisplatin plus gemcitabine with either placebo or bevacizumab as first-line therapy for nonsquamous non-small-cell lung cancer: AVAil

Authors: Reck M et al.

Comment: This was a large phase III trial of cisplatin/gemcitabine plus bevacizumab, a monoclonal antibody targeting vascular endothelial growth factor, for advanced non-squamous NSCLC. Patients were randomised to cisplatin/gemcitabine for up to 6 cycles plus low-dose (7.5 mg/kg) or high-dose (15 mg/kg) bevacizumab or placebo every 3 weeks until disease progression. Combining bevacizumab (7.5 or 15 mg/kg) with cisplatin/gemcitabine appeared to improve progression free survival and objective response rate.

Reference: J Clin Oncol 2009; 27: 1227-34. Erratum: J Clin Oncol 2009; 27: 2415

URL: jco.ascopubs.org/cgi/content/full/27/8/1227



The differential efficacy of pemetrexed according to NSCLC histology: a review of two Phase III studies

Authors: Scagliotti G et al.

Comment: There has been growing interest in whether different subtypes of NSCLC may have differential response and/or side-effect profiles in chemotherapy or targeted therapies (e.g. EGFR tyrosine kinase inhibitors for adenocarcinoma). This review discusses the differential efficacy of pemetrexed according to histology in two large phase III NSCLC trials. The authors suggest that the data indicate a predictive role for histology in pemetrexed therapy and a survival advantage with pemetrexed in patients with non-squamous lung cancer. If this is confirmed, there will be an emerging need for diagnosticians to obtain sufficient biopsies/samples to enable pathologists to make a confident classification of NSCLC subtype in order to individualise treatment decisions.

Reference: Oncologist 2009; 14: 253-63.

URL: theoncologist.alphamedpress.org/cgi/content/abstract/14/3/253

APSR Respiratory Updates is an initiative of the APSR Education Committee.

Coordinator: Prof. Richard Beasley, Medical Research Institute of New Zealand.

Articles selected and commented on by Associate Professors Kwun Fong, Rayleen Bowman and Ian Yang, The Prince Charles Hospital, Brisbane, Australia.

Compiled by Dr. Neil Misso, Respirology Editorial Office.

Disclaimer: This publication is not intended as a replacement for regular medical education. The comments are an interpretation of the published study and reflect the opinion of the writer rather than those of the research group or scientific journal. It is suggested readers review the full trial data before forming a final conclusion on its merits. Privacy Policy: The APSR Secretariat will record your email details on a secure database and will not release it to anyone without your prior approval. The APSR and you have the right to inspect, update or delete your details at any time.

To advertise, subscribe a colleague or to unsubscribe please contact :Secretariat, Asian Pacific Society of Respirology, Yoshikawa Bldg. No. 2, 2-9-8 Hongo, Bunkyo-ku, Tokyo, Japan