Lung Cancer Update

Issue 1, 2016 (Video Program)

CME Information

TARGET AUDIENCE

This activity is intended for medical oncologists, radiation oncologists and other healthcare providers involved in the treatment of lung cancer.

OVERVIEW OF ACTIVITY

Lung cancer is the leading cause of cancer mortality in the United States for both men and women. In 2016, it is estimated that 224,390 new cases of lung and bronchus cancer will be diagnosed and 158,080 deaths will occur in the United States. Traditional chemotherapy, surgery and radiation therapy have had a modest effect on long-term outcomes for patients with lung cancer. However, the advent of biologic and immunotherapeutic agents has led to recent improvements in disease-free and overall survival in select populations. In order to offer optimal patient care, including the option of clinical trial participation, clinicians must be well informed of these advances.

To provide clinicians with therapeutic strategies to address the disparate needs of patients with lung cancer, this program features information on the latest research developments and is designed to assist medical and radiation oncologists with the formulation of up-to-date strategies for the care of patients with lung cancer.

LEARNING OBJECTIVES

- Review the benefits and risks associated with systemic therapies used in the evidence-based treatment of lung cancer, including targeted biologic agents and chemotherapy.
- Assess available research evidence with existing and emerging therapeutic options for advanced squamous cell carcinoma of the lung, and use this information to guide clinical care and protocol opportunities.
- Discuss the effectiveness and tolerability of systemic therapies for patients with malignant pleural mesothelioma.
- Formulate a plan to incorporate immune checkpoint inhibitor therapy into the treatment of advanced non-small cell lung cancer (NSCLC), and subsequently monitor immune-related side effects when they occur.
- Recognize the recent FDA approvals of ramucirumab and necitumumab for patients with progressive metastatic NSCLC, and discern how these agents can be safely administered to appropriate patients with squamous and nonsquamous disease.
- Describe emerging data on tumor immunotherapy for patients with small cell lung cancer, and consider this information when counseling patients regarding clinical trial participation.

ACCREDITATION STATEMENT

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AMERICAN BOARD OF INTERNAL MEDICINE (ABIM) — MAINTENANCE OF CERTIFICATION (MOC)

Successful completion of this CME activity enables the participant to earn up to 1 MOC point in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the amount of CME credits claimed for the activity. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

Please note, this program has been specifically designed for the following ABIM specialty: **medical oncology**.

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HOW TO USE THIS CME ACTIVITY

This CME activity consists of a video component. To receive credit, the participant should watch the video, complete the Post-test with a score of 80% or better and fill out the Educational Assessment and Credit Form located at ResearchToPractice.com/LCU116/Video/CME.

CONTENT VALIDATION AND DISCLOSURES

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FACULTY — The following faculty (and their spouses/partners) reported relevant conflicts of interest, which have been resolved through a conflict of interest resolution process:

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Consulting Agreements: Amgen Inc, AstraZeneca Pharmaceuticals LP, Boehringer Ingelheim Pharmaceuticals Inc, Chugai Pharmaceuticals, KEW Group LLC, Lilly, Merck, Novartis Pharmaceuticals Corporation; **Expert Testimony:** Genentech BioOncology; **Ownership Interest:** KEW Group LLC.

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Consulting Agreements: Boehringer Ingelheim Pharmaceuticals Inc, Celgene Corporation, Lilly; **Contracted Research:** Bristol-Myers Squibb Company, EMD Serono Inc, Genentech BioOncology.

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Hardware/Software Requirements:
A high-speed Internet connection
A monitor set to 1280 x 1024 pixels or more
Internet Explorer 7 or later, Firefox 3.0 or later, Chrome, Safari 3.0 or later
Adobe Flash Player 10.2 plug-in or later
Adobe Acrobat Reader
(Optional) Sound card and speakers for audio

Last review date: June 2016

Expiration date: June 2017

Select Publications

Awad M et al. **MET exon 14 mutations in non–small-cell lung cancer are associated with advanced age and stage-dependent MET genomic amplification and c-Met overexpression.** *J Clin Oncol* 2016;34(7):721-30.

Borghaei H et al. **Nivolumab versus docetaxel in advanced nonsquamous non–small-cell lung cancer.** *N Engl J Med* 2015;373(17):1627-39.

Brahmer J et al. **Nivolumab versus docetaxel in advanced squamous-cell non–small-cell lung cancer.** *N Engl J Med* 2015;373(2):123-35.

Garon E at al. **Ramucirumab plus docetaxel versus placebo plus docetaxel for second-line treatment of stage IV non-small-cell lung cancer after disease progression on platinum-based therapy (REVEL): A multicentre, double-blind, randomised phase 3 trial.** *Lancet* 2014;384(9944):665-73.

Heon S et al. **Development of central nervous system metastases in patients with advanced non-small cell lung cancer and somatic *EGFR* mutations treated with gefitinib or erlotinib.** *Clin Cancer Res* 2010;16(23):5873-82.

Herbst R et al. **Pembrolizumab versus docetaxel for previously treated, PD-L1-positive, advanced non-small-cell lung cancer (KEYNOTE-010): A randomised controlled trial.** *Lancet* 2016;387(10027):1540-50.

Karlovich C et al. **Assessment of EGFR mutation status in matched plasma and tumor tissue of NSCLC patients from a phase I study of rociletinib (CO-1686).** *Clin Cancer Res* 2016;22(10):2386-95.

Ou SH et al. **Alectinib in crizotinib-refractory *ALK*-rearranged non–small-cell lung cancer: A phase II global study.** *J Clin Oncol* 2016;34(7):661-8.

Pietanza MC et al. **Safety, activity, and response durability assessment of single agent rovalpituzumab tesirine, a delta-like protein 3 (DLL3)-targeted antibody drug conjugate (ADC), in small cell lung cancer (SCLC).** *Proc ECCO* 2015;**Abstract 7LBA**.

Sacher A et al. **Prospective validation of rapid plasma genotyping for the detection of *EGFR* and *KRAS* mutations in advanced lung cancer.** *JAMA Oncol* 2016;[Epub ahead of print].

Seto T et al. **Erlotinib alone or with bevacizumab as first-line therapy in patients with advanced non-squamous non-small-cell lung cancer harbouring *EGFR* mutations (JO25567): An open-label, randomised, multicentre, phase 2 study.** *Lancet Oncol* 2014;15(11):1236-44.

Socinski MA et al. **Weekly *nab*-paclitaxel in combination with carboplatin versus solvent-based paclitaxel plus carboplatin as first-line therapy in patients with advanced non-small-cell lung cancer: Final results of a phase III trial.** *J Clin Oncol* 2012;30(17):2055-62.

Thatcher N et al. **Necitumumab plus gemcitabine and cisplatin versus gemcitabine and cisplatin alone as first-line therapy in patients with stage IV squamous non-small-cell lung cancer (SQUIRE): An open-label, randomised, controlled phase 3 trial.** *Lancet Oncol* 2015;16(7):763-74.

Yang JC et al. **Afatinib versus cisplatin-based chemotherapy for *EGFR* mutation-positive lung adenocarcinoma (LUX-Lung 3 and LUX-Lung 6): Analysis of overall survival data from two randomised, phase 3 trials.** *Lancet Oncol* 2015;16(2):141-51.

Zalcman G et al. **Bevacizumab for newly diagnosed pleural mesothelioma in the Mesothelioma Avastin Cisplatin Pemetrexed Study (MAPS): A randomised, controlled, open-label, phase 3 trial.** *Lancet* 2016;[Epub ahead of print].