Lung Cancer Update

Issue 2, 2017 (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

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. Featuring information on the latest research developments, this program 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

- Evaluate the efficacy and safety data on tumor immunotherapy directed at the PD-1/PD-L1 pathway in lung cancer, and compare and contrast expert perspectives on the incorporation of these agents into the treatment of locally advanced and metastatic disease.
- Develop a genomic testing algorithm to assist in identifying appropriate patients eligible for protocol and clinical targeted treatment options.
- Formulate an evidence-based approach for selection and sequencing of crizotinib, ceritinib, alectinib, brigatanib and emerging ALK inhibitors in the treatment of non-small cell lung cancer (NSCLC), considering the predictive utility of ALK and ROS1 mutation testing.
- Consider published safety and efficacy data with available and emerging therapeutic strategies, and appropriately incorporate targeted therapies into the care of patients with identified tumor driver mutations or alterations.
- Educate patients about the side effects associated with recently approved novel agents and immunotherapeutic approaches, and provide preventive strategies to reduce or ameliorate these toxicities.
- Devise an evidence-based approach to the selection of initial, second-line and later systemic therapy for patients with NSCLC without an identified targetable mutation.

ACCREDITATION STATEMENT

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

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 2.75 Medical Knowledge MOC points 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 review the CME information, 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/LCU217/Video/CME**. The corresponding audio program is available as an alternative at **ResearchToPractice.com/LCU217**.

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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:

Matthew Gubens, MD, MS
Associate Professor, Thoracic Medical Oncology
University of California, San Francisco
San Francisco, California

Advisory Committee: AbbVie Inc, AstraZeneca Pharmaceuticals LP, Bristol-Myers Squibb Company, Genentech BioOncology, Mersana Therapeutics, Novartis; **Contracted Research:** Celgene Corporation, Merck, OncoMed Pharmaceuticals Inc, Roche Laboratories Inc.

Suresh S Ramalingam, MD
Professor of Hematology and Medical Oncology
Assistant Dean for Cancer Research
Emory University School of Medicine
Deputy Director, Winship Cancer Institute
Atlanta, Georgia

Advisory Committee and Consulting Agreements: Amgen Inc, AstraZeneca Pharmaceuticals LP, Bristol-Myers Squibb Company, Celgene Corporation, Genentech BioOncology, Lilly, Merck, Takeda Oncology.

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Hardware/Software Requirements:
A high-speed Internet connection
A monitor set to 1280 x 1024 pixels or more
Internet Explorer 11 or later, Firefox 56 or later, Chrome 61 or later, Safari 11 or later, Opera 48 or later
Adobe Flash Player 27 plug-in or later
Adobe Acrobat Reader
(Optional) Sound card and speakers for audio

Last review date: December 2017

Expiration date: December 2018

Select Publications

A phase III randomized, open-label, multi-center, global study of MEDI4736 in combination with tremelimumab therapy or MEDI4736 monotherapy versus standard of care platinum-based chemotherapy in first line treatment of patients with advanced or metastatic non small-cell lung cancer (NSCLC) (MYSTIC). NCT02453282

Adjuvant lung cancer enrichment marker identification and sequencing trial (ALCHEMIST). NCT02194738

Antonia SJ et al; PACIFIC Investigators. **Durvalumab after chemoradiotherapy in stage III non-small-cell lung cancer.** *N Engl J Med* 2017;[Epub ahead of print].

Gadgeel SM et al. **Clinical activity of osimertinib in EGFR mutation positive non-small cell lung cancer (NSCLC).** *Proc IASLC* 2016;**Abstract P3.02b-115**.

Hann CL et al. **A study of rovalpituzumab tesirine in frontline treatment of patients with DLL3 expressing extensive small cell lung cancer.** *Proc ASCO* 2017;**Abstract TPS2598**.

Hellmann M et al. **Nivolumab (nivo) ± ipilimumab (ipi) in advanced small-cell lung cancer (SCLC): First report of a randomized expansion cohort from CheckMate 032.** *Proc ASCO* 2017;**Abstract 8503**.

Hellmann M et al. **Nivolumab plus ipilimumab as first-line treatment for advanced non-small-cell lung cancer (CheckMate 012): Results of an open-label, phase 1, multicohort study.** *Lancet Oncol* 2017;18(1):31-41.

Hida T et al. **Alectinib versus crizotinib in patients with ALK-positive non-small-cell lung cancer (J-ALEX): An open-label, randomised phase 3 trial.** *Lancet* 2017;390(10089):29-39.

Khunger M et al. **Incidence of pneumonitis with use of programmed death 1 and programmed death-ligand 1 inhibitors in non-small cell lung cancer: A systematic review and meta-analysis of trials.** *Chest* 2017;152(2):271-81.

Kim DW et al. **Brigatinib in patients with crizotinib-refractory anaplastic lymphoma kinase-positive non-small-cell lung cancer: A randomized, multicenter phase II trial.** *J Clin Oncol* 2017;35(22):2490-8.

Lee CK et al. **Checkpoint inhibitors in metastatic EGFR-mutated non-small cell lung cancer-A meta-analysis.** *J Thorac Oncol* 2017;12(2):403-7.

Lin JJ et al. **Identification of on-target mechanisms of resistance to EGFR inhibitors using ctDNA next-generation sequencing.** *Proc IASLC* 2016;**Abstract P3.02b-103**.

Mok T et al. **CNS response to osimertinib in patients (pts) with T790M-positive advanced NSCLC: Data from a randomized phase III trial (AURA3).** *Proc ASCO* 2017;**Abstract 9005**.

Mok T et al. **Dacomitinib versus gefitinib for the first-line treatment of advanced EGFR mutation positive non-small cell lung cancer (ARCHER 1050): A randomized, open-label phase 3 trial.** *Proc ASCO* 2017;**Abstract LBA9007**.

Owonikoko TK et al. **Cardiac allograft rejection as a complication of PD-1 checkpoint blockade for cancer immunotherapy: A case report.** *Cancer Immunol Immunother* 2017;66(1):45-50.

Owonikoko TK et al. **Randomized trial of cisplatin and etoposide in combination with veliparib or placebo for extensive stage small cell lung cancer: ECOG-ACRIN 2511 study.** *Proc ASCO* 2017;**Abstract 8505**.

Peters S et al; ALEX Trial Investigators. **Alectinib versus crizotinib in untreated ALK-positive non-small-cell lung cancer.** *N Engl J Med* 2017;377(9):829-83.

Peters S et al. **Phase II trial of atezolizumab as first-line or subsequent therapy for patients with programmed death-ligand 1-selected advanced non-small-cell lung cancer (BIRCH).** *J Clin Oncol* 2017;35(24):2781-9.

Pillai RN et al. **Randomized, open-label phase Ib/II study of atezolizumab with or without daratumumab in previously treated advanced or metastatic non-small cell lung cancer (NSCLC).** *Proc ASCO* 2017;**Abstract TPS9102**.

Pinheiro APM et al. **Discussing molecular testing in oncology care: Comparing patient and physician information preferences.** *Cancer* 2017;123(9):1610-6.

Pinheiro AP et al. **Using metaphors to explain molecular testing to cancer patients.** *Oncologist* 2017;22(4):445-9.

Ramalingam SS et al. **Osimertinib as first-line treatment of EGFR mutation-positive advanced non-small-cell lung cancer.** *J Clin Oncol* 2017;[Epub ahead of print].

Ramalingam SS et al. **Osimertinib vs standard of care (SoC) EGFR-TKI as first-line therapy in patients (pts) with EGFRm advanced NSCLC: FLAURA.** *Proc ESMO* 2017;**Abstract LBA2_PR**.

Ramalingam S et al. **Osimertinib as first-line treatment for EGFR mutation-positive advanced NSCLC: Updated efficacy and safety results from two phase I expansion cohorts.** *Proc ESMO* 2016;**Abstract LBA1_PR**.

Select Publications

Reck M et al. **Pembrolizumab versus chemotherapy for PD-L1-positive non-small-cell lung cancer.** *N Engl J Med* 2016;375(19):1823-33.

Shaw AT et al. **Efficacy and safety of lorlatinib in ALK+ non-small cell lung cancer (NSCLC) patients (pts) with >1 prior ALK tyrosine kinase inhibitor (TKI): A phase I/II study.** *Proc ASCO* 2017;**Abstract 9006**.

Shi P et al. **Met gene amplification and protein hyperactivation is a mechanism of resistance to both first and third generation EGFR inhibitors in lung cancer treatment.** *Cancer Lett* 2016;380(2):494-504.

Wu Y et al. **Gefitinib (G) versus vinorelbine+cisplatin (VP) as adjuvant treatment in stage II-IIIA (N1-N2) non-small-cell lung cancer (NSCLC) with EGFR-activating mutation (ADJUVANT): A randomized, phase III trial (CTONG 1104).** *Proc ASCO* 2017;**Abstract 8500**.