NEW AGENTS AND CLINICAL STRATEGIES IN THE SYSTEMIC TREATMENT OF NON-SMALL CELL LUNG CANCER

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

OVERVIEW OF ACTIVITY
Lung cancer is a devastating disease with a broad-reaching impact on public health, accounting for 13% of all new cancer cases in the US and the most cancer-related deaths among both men and women. In the year 2016, it is estimated that 224,390 individuals will be diagnosed and 158,080 individuals will die from the disease. Importantly, despite the many advances over the past few decades related to surgery, radiation therapy and chemotherapy, death rates attributable to lung cancer have remained relatively unchanged. Today, many are optimistic that these trends have already started to change as recent research advances have led to an explosion in lung cancer genetic and biologic knowledge among scientists and clinicians working in this area of cancer medicine.

To bridge the gap between research and patient care, this video presentation by Dr Mark A Socinski uses a review of recent relevant publications and presentations, ongoing clinical trials and clinical investigator treatment preferences to assist medical oncologists and other healthcare providers involved in the treatment of lung cancer with the formulation of up-to-date clinical management strategies.

LEARNING OBJECTIVES

- Discriminate among molecular determinates that may be used to refine non-small cell lung cancer (NSCLC) prognosis and/or predict therapeutic response to an individual treatment.
- Employ an understanding of personalized medicine to individualize the use of available EGFR inhibitors in the treatment of NSCLC.
- Describe mechanisms of tumor resistance to EGFR tyrosine kinase inhibitors, and identify investigational therapeutic opportunities to circumvent these processes.
- Communicate the efficacy and safety of crizotinib, ceritinib and other investigational ALK inhibitors to appropriate patients with NSCLC, considering the predictive utility of ALK mutation testing.
- Describe available and emerging data on the efficacy and safety of tumor immunotherapy directed at the PD-1/PD-L1 pathway in lung cancer, and consider this information when counseling patients regarding protocol and nonresearch options.
- Appreciate the recent FDA approval of nivolumab and pembrolizumab, and optimally employ these novel immunotherapeutic agents in the management of metastatic NSCLC.
- Recognize the recent FDA approval of ramucirumab for progressive metastatic NSCLC, and discern how this agent can be optimally integrated into clinical practice for patients with squamous and nonsquamous disease.
- Assess new oncogenic pathways mediating the growth of unique NSCLC tumor subsets, and recall emerging data with experimental agents exploiting these targets.

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by both a member of the RTP scientific staff and an external, independent physician reviewer for fair balance, scientific objectivity of studies referenced and patient care recommendations.

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

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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


Garon EB et 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.


Planchard D et al. Interim results of a phase II study of the BRAF inhibitor (BRAFi) dabrafenib (D) in combination with the MEK inhibitor trametinib (T) in patients (pts) with BRAF V600E mutated (mut) metastatic non-small cell lung cancer (NSCLC). Proc ASCO 2015;Abstract 8006.


Spigel DR et al. A phase III study (CheckMate 017) of nivolumab (NIVO; anti-programmed death-1 [PD-1]) vs docetaxel (DOC) in previously treated advanced or metastatic squamous (SQ) cell non-small cell lung cancer (NSCLC). Proc ASCO 2015;Abstract 8009.

Spira AI et al. Efficacy, safety and predictive biomarker results from a randomized phase II study comparing MPDL3280A vs docetaxel in 2L/3L NSCLC (POPLAR). Proc ASCO 2015;Abstract 8010.
