

Lung Cancer™

U P D A T E

An Audio Review Journal for Nurses

EDITOR

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INTERVIEWS

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Mark A Socinski, MD

Thomas J Lynch, MD

*Additional comments from
a patient with metastatic
lung cancer*



STATEMENT OF NEED/TARGET AUDIENCE

Lung cancer is the leading cause of cancer mortality in the United States in both men and women. Chemotherapy, surgery and radiation therapy have had a modest effect on patient outcomes. However, recent improvements have been seen in time to progression and survival in lung cancer clinical trials. Research findings and ongoing clinical trials lead to the continuous emergence of new drugs and therapies and changes in the indications for existing treatments. To offer their patients the best care possible, oncology nurses need to be aware of ongoing research and changes in cancer care so as to include the widening array of therapeutic options for cancer patients in their everyday disease management decisions. To assist with meeting this need, *Lung Cancer Update for Nurses* provides an overview of the latest research developments in lung cancer and the opinions of patients, oncology nurses and clinical investigators with experience and expertise in the field.

PURPOSE STATEMENT

To present the most current research developments in lung cancer and to provide the perspectives of medical oncologists, oncology nurses and patients on the diagnosis and treatment of lung cancer.

EDUCATIONAL OBJECTIVES FOR THIS ISSUE OF *LUNG CANCER UPDATE FOR NURSES*

- Critically evaluate emerging clinical trial data on targeted molecular therapies and new formulations of commonly used chemotherapies, and integrate these agents into the treatment for appropriate patients with non-small cell lung cancer (NSCLC).
- Identify the subgroup of patients with epidermal growth factor receptor-mutated NSCLC, and incorporate tyrosine kinase inhibitors, with consideration of their efficacy and toxicity profiles, into the treatment for appropriate patients.
- Counsel appropriate patients on the effects of agents targeting vascular endothelial growth factor in the treatment of NSCLC, including benefits and risks, and integrate these agents, as indicated, into treatment regimens.
- Identify treatment-related toxicities, provide patient education on these side effects and develop management strategies to minimize or alleviate symptoms.
- Discuss the psychosocial and emotional needs of caregivers, patients and their loved ones associated with the diagnosis and treatment of lung cancer.

ACCREDITATION STATEMENTS

This educational activity for 2.5 contact hours is provided by Research To Practice during the period of May 2008 through May 2009.

Research To Practice is an approved provider of continuing nursing education by the New Jersey State Nurses Association, Provider Number P215-01/07-10. NJSNA is accredited by the ANCC Commission on Accreditation. Provider Approval is valid through January 31, 2010.

HOW TO USE THIS CNE ACTIVITY

This is an audio CNE program. This book contains CNE information, including learning objectives, faculty disclosures, a Post-test and an Educational Assessment and Credit Form. The corresponding website LungCancerUpdate.com/Nurses also includes links to relevant abstracts and full-text articles.

The Post-test and Educational Assessment and Credit Form may be completed in this book and either mailed to Research To Practice, 2 South Biscayne Blvd, Suite 3600, Miami, FL 33131 or faxed to (800) 447-4310. They may also be completed online. A statement of credit will be issued only upon receipt of a completed Post-test with a score of 70 percent or better and a completed Educational Assessment and Credit Form. Your statement of credit will be mailed to you within three weeks or may be printed online.

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CONTENT VALIDATION AND DISCLOSURES

Research To Practice is committed to providing its participants with high-quality, unbiased and state-of-the-art education. We assess potential conflicts of interest with faculty, planners and managers of CNE activities. Real or apparent conflicts of interest are identified and resolved through a conflict of interest resolution process. In addition, all activity content is reviewed by both a member of the Research To Practice scientific staff and an external, independent 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: **Ms Fish-Stegall** — Advisory Committee: Bristol-Myers Squibb Company, Genentech BioOncology; Consulting Agreement: Bristol-Myers Squibb Company; Speakers Bureau: Bristol-Myers Squibb Company, Eli Lilly and Company, Genentech BioOncology. **Dr Socinski** — Paid Research: AstraZeneca Pharmaceuticals LP, Eli Lilly and Company, Genentech BioOncology, Pfizer Inc, Sanofi-Aventis; Speakers Bureau: Eli Lilly and Company, Genentech BioOncology, Sanofi-Aventis. **Dr Lynch** — Consulting Agreements: AstraZeneca Pharmaceuticals LP, Bristol-Myers Squibb Company, Eli Lilly and Company, Genentech BioOncology, ImClone Systems Incorporated, OSI Pharmaceuticals Inc, Roche Laboratories Inc, Sanofi-Aventis; Patent for EGFR Testing: Genzyme Corporation.

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QUESTIONS (PLEASE CIRCLE ANSWER):

1. Erlotinib-related side effects include which of the following?
 - a. Alopecia areata
 - b. Increased facial hair
 - c. Skin rash
 - d. Both b and c
2. Which of the following is an advantage associated with *nab* paclitaxel?
 - a. Shorter infusion time
 - b. Does not require Cremophor®
 - c. Both a and b
3. In 2004, Lynch and colleagues identified a subset of patients with _____ mutations that were responsive to the tyrosine kinase inhibitor gefitinib.
 - a. EGFR
 - b. VEGFR
 - c. K-ras
4. In the trial ECOG-E4599, evaluating paclitaxel/carboplatin with or without bevacizumab in metastatic disease, which regimen demonstrated a survival advantage?
 - a. Paclitaxel/carboplatin
 - b. Paclitaxel/carboplatin/bevacizumab
5. One theory regarding the mechanism of action of bevacizumab is that it normalizes the tumor vasculature, which leads to an improved ability to deliver chemotherapy to the cancer cells.
 - a. True
 - b. False
6. Eligibility criteria for the CALGB study evaluating erlotinib with chemotherapy versus erlotinib alone in the treatment of advanced NSCLC included which of the following?
 - a. Adenocarcinoma
 - b. Heavy smokers
 - c. Never smokers
 - d. Both a and b
 - e. Both a and c
7. As described by Dr Socinski, a proposed rationale for pulse dosing of erlotinib is to try to force penetration of the agent past the blood-brain barrier to treat EGFR-mutant NSCLC that has metastasized to the brain or meninges.
 - a. True
 - b. False
8. Which of the following are considered risk factors for bevacizumab-associated pulmonary hemorrhage?
 - a. Distal tumor location
 - b. Squamous cell histology
 - c. History of hemoptysis
 - d. Both b and c
9. To reduce the incidence of gastrointestinal symptoms associated with erlotinib, patients should be advised to take their medication _____.
 - a. On an empty stomach
 - b. With a meal
10. Vandetanib (ZD6474) is an oral agent that targets which of the following receptors?
 - a. EGFR
 - b. VEGFR
 - c. Both a and b
11. Ann Fish-Stegall, RN, BSN, OCN describes withholding bevacizumab for a defined period of time before and after placement of a venous access device to reduce the risk of _____.
 - a. Hypertension
 - b. Immunosuppression
 - c. Proteinuria
 - d. Problems in wound healing
12. A TTF1-_____ immunophenotype is seen in the majority of adenocarcinomas of the lung.
 - a. Negative
 - b. Positive

Research To Practice is committed to providing valuable continuing education for oncology clinicians, and your input is critical to helping us achieve this important goal. Please take the time to assess the activity you just completed, with the assurance that your answers and suggestions are strictly confidential.

PART ONE — Please tell us about your experience with this educational activity

BEFORE completion of this activity, how would you characterize your level of knowledge on the following topics?

4 = Expert 3 = Above average 2 = Competent 1 = Insufficient

- Clinical trials evaluating biologic agents for the treatment of NSCLC in the metastatic and adjuvant settings 4 3 2 1
- Risks and benefits of anti-angiogenic agents in the treatment of NSCLC 4 3 2 1
- Management of side effects secondary to targeted molecular therapies 4 3 2 1
- Efficacy of tyrosine kinase inhibitors in treating EGFR-mutant NSCLC 4 3 2 1

AFTER completion of this activity, how would you characterize your level of knowledge on the following topics?

4 = Expert 3 = Above average 2 = Competent 1 = Insufficient

- Clinical trials evaluating biologic agents for the treatment of NSCLC in the metastatic and adjuvant settings 4 3 2 1
- Risks and benefits of anti-angiogenic agents in the treatment of NSCLC 4 3 2 1
- Management of side effects secondary to targeted molecular therapies 4 3 2 1
- Efficacy of tyrosine kinase inhibitors in treating EGFR-mutant NSCLC 4 3 2 1

Was the activity evidence based, fair, balanced and free from commercial bias?

Yes No

If no, please explain:

Will this activity help you improve patient care?

Yes No Not applicable

If no, please explain:

Did the activity meet your educational needs and expectations?

Yes No

If no, please explain:

Please respond to the following LEARNER statements by circling the appropriate selection:

4 = Yes 3 = Will consider 2 = No 1 = Already doing N/M = Learning objective not met N/A = Not applicable

As a result of this activity, I will:

- Critically evaluate emerging clinical trial data on targeted molecular therapies and new formulations of commonly used chemotherapies, and integrate these agents into the treatment for appropriate patients with non-small cell lung cancer (NSCLC)... .. 4 3 2 1 N/M N/A
- Identify the subgroup of patients with epidermal growth factor receptor-mutated NSCLC, and incorporate tyrosine kinase inhibitors, with consideration of their efficacy and toxicity profiles, into the treatment for appropriate patients. 4 3 2 1 N/M N/A
- Counsel appropriate patients on the effects of agents targeting vascular endothelial growth factor in the treatment of NSCLC, including benefits and risks, and integrate these agents, as indicated, into treatment regimens. 4 3 2 1 N/M N/A
- Identify treatment-related toxicities, provide patient education on these side effects and develop management strategies to minimize or alleviate symptoms. 4 3 2 1 N/M N/A
- Discuss the psychosocial and emotional needs of caregivers, patients and their loved ones associated with the diagnosis and treatment of lung cancer. 4 3 2 1 N/M N/A

What other practice changes will you make or consider making as a result of this activity?

.....

EDUCATIONAL ASSESSMENT AND CREDIT FORM (continued)

What additional information or training do you need on the activity topics or other oncology-related topics?

.....

Additional comments about this activity:

.....

May we include you in future assessments to evaluate the effectiveness of this activity?

Yes No

PART TWO — Please tell us about the faculty for this educational activity

| Faculty | 4 = Expert | | | | 3 = Above average | | | | 2 = Competent | | | | 1 = Insufficient | | | |
|---------------------------------|-----------------------------|---|---|---|-------------------|---|---|---|------------------------------|---|---|---|------------------|---|---|---|
| | Knowledge of subject matter | | | | | | | | Effectiveness as an educator | | | | | | | |
| Ann Fish-Steagall, RN, BSN, OCN | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| Mark A Socinski, MD | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |
| Thomas J Lynch, MD | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 |

Please recommend additional faculty for future activities:

.....

Other comments about the faculty for this activity:

.....

REQUEST FOR CREDIT — Please print clearly

Name:..... Specialty:.....

Credentials:

MD DO PharmD NP CNS RN PA Other

Professional License Number:..... Last 4 Digits of SSN (required):.....

Street Address:..... Box/Suite:.....

City, State, Zip:

Telephone:..... Fax:.....

Email:

Signature:..... Date:

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