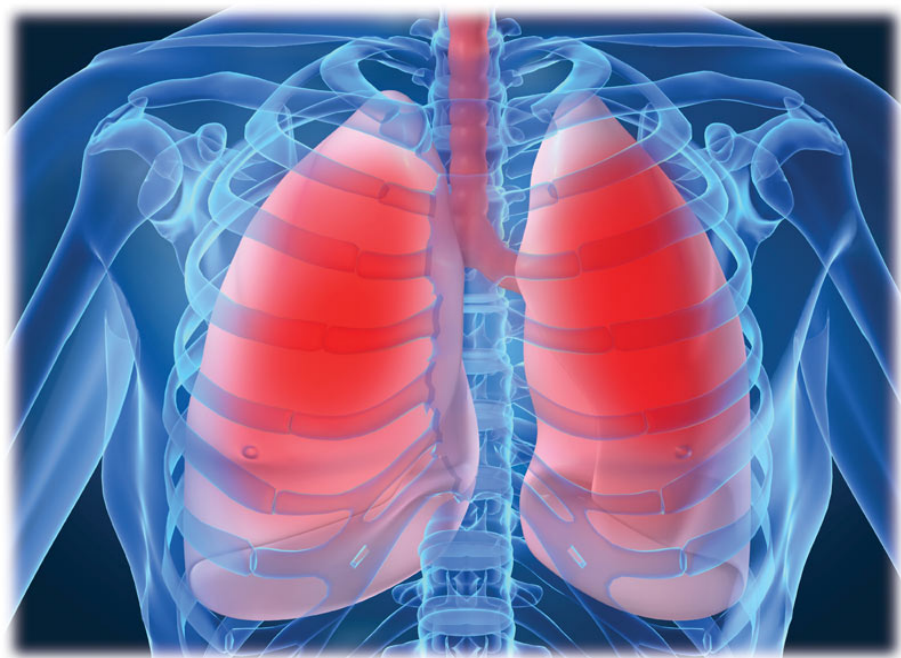




# **NATIONAL ASSOCIATION FOR CONTINUING EDUCATION**



Lung Cancer: State of the Art 2013

**Final Outcome Report**

## **Challenges in Pulmonary and Critical Care: 2013**

**Presented at:  
Cleveland Clinic Florida  
Weston, Florida  
December 7, 2013**

Report Date: January 14, 2014

# Course Director

**Franck Rahaghi, MD, MHS, FCCP**

Director, Pulmonary Hypertension Clinic  
Director, Pulmonary Education and Rehabilitation  
Cleveland Clinic Florida  
Weston, FL

# Course Accreditation

The National Association for Continuing Education is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The National Association for Continuing Education designates this live activity for a maximum of 7 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should only claim the credit commensurate with the extent of their participation in the activity.

National Association for Continuing Education is approved as a provider of nurse practitioner continuing education by the American Association of Nurse Practitioners. AANP Provider Number 121222. This program has been approved for 7.0 contact hours of continuing education (which includes 0.75 pharmacology hours).

# Commercial Support

Challenges in Pulmonary and Critical Care: 2013 CME activity was supported through educational grants from the following companies:

Actelion

Baxter Healthcare

Boehringer Ingelheim Pharmaceuticals, Inc.

Boston Scientific

CSL Behring

Genentech

Grifols

# Agenda

7:00-7:45	Continental Breakfast and Registration	12:15-1:00	Lunch Break/Exhibits
7:45-8:00	Welcome Remarks Franck Rahaghi, MD, MHS, FCCP	1:00-2:00	Update in PE and CTEPH Charles D. Burger, MD
8:00-9:00	Pulmonary Hypertension: A Disease in Evolution Murali Chakinala, MD, FCCP	2:00-3:00	Idiopathic Pulmonary Fibrosis: What have we learned and where are we going? Franck Rahaghi, MD, MHS, FCCP
9:00-10:00	Update in Interventional Bronchoscopy 2013 Eduardo C. Oliveira, MD	3:00-3:15	Break/Exhibits
10:00-10:15	Break/Exhibits	3:15-4:15	Lung Cancer: State of the Art 2013 Jinesh Mehta, MD
10:15-11:15	COPD: New Developments, New Treatment Horizons Anas Hadeh, MD, FCCP	4:15-4:30	Concluding Remarks Franck Rahaghi, MD, MHS, FCCP
11:15-12:15	Alpha-1 Antitrypsin Deficiency: 50th Anniversary of a Disease Robert A. Sandhaus, MD, PhD		

# Levels of Evaluation

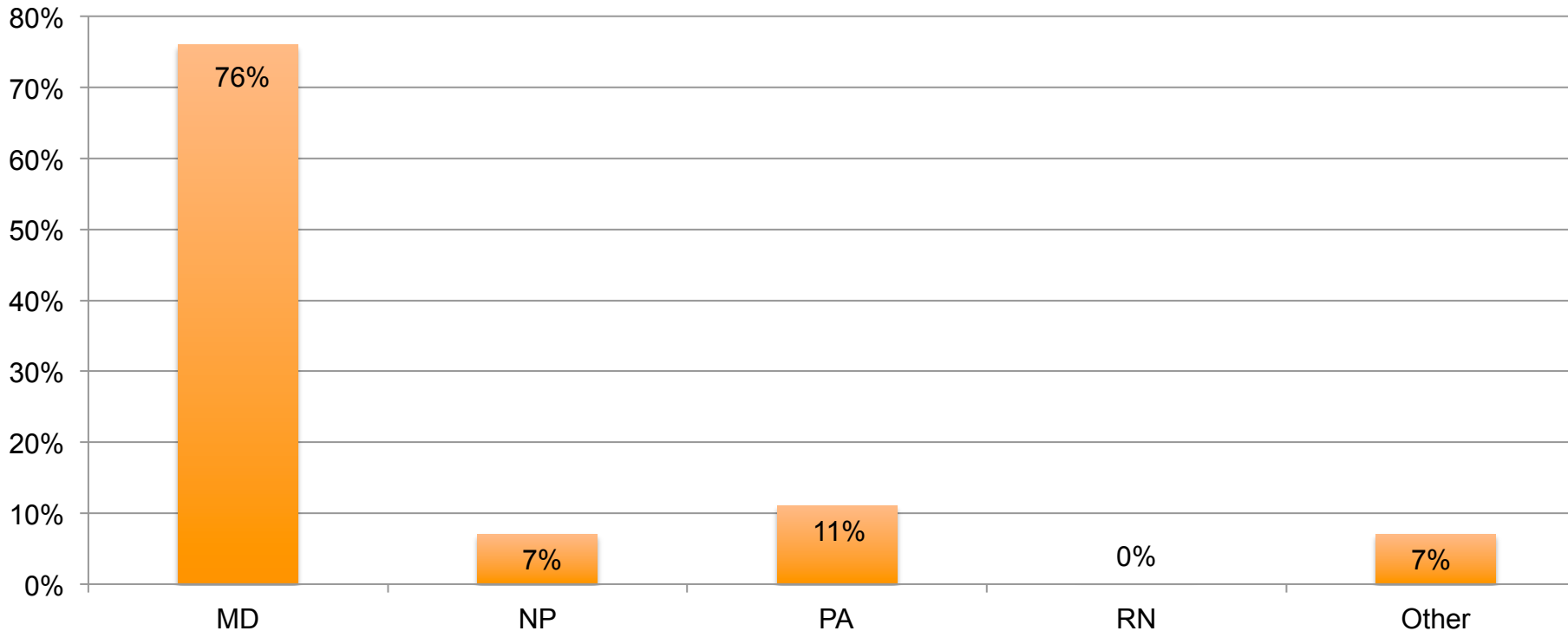
Consistent with the policies of the ACCME, NACE evaluates the effectiveness of all CME activities using a systematic process based on the following model:

1. Participation
2. Satisfaction
3. Learning
  - A. Declarative Knowledge
  - B. Procedural Knowledge
4. Competence
5. Performance
6. Patient Health
7. Community Health

Moore DE Jr, Green JS, Gallis HA. Achieving desired results and improved outcomes: integrating planning and assessment throughout learning activities. J Contin Educ Health Prof. 2009 Winter;29(1):1-15.

# Level 1: Participation

- 129 attendees
- 76% Physicians; 7% NPs; 11% PAs; 0% RNs; 7% Other
- Over 46% in community-based practice
- 45% PCPs, 33% Pulmonologists; 3% Rheumatology; 3% Dermatology; 16% Other or did not respond



N = 57

Did we reach the right audience? **Yes!**

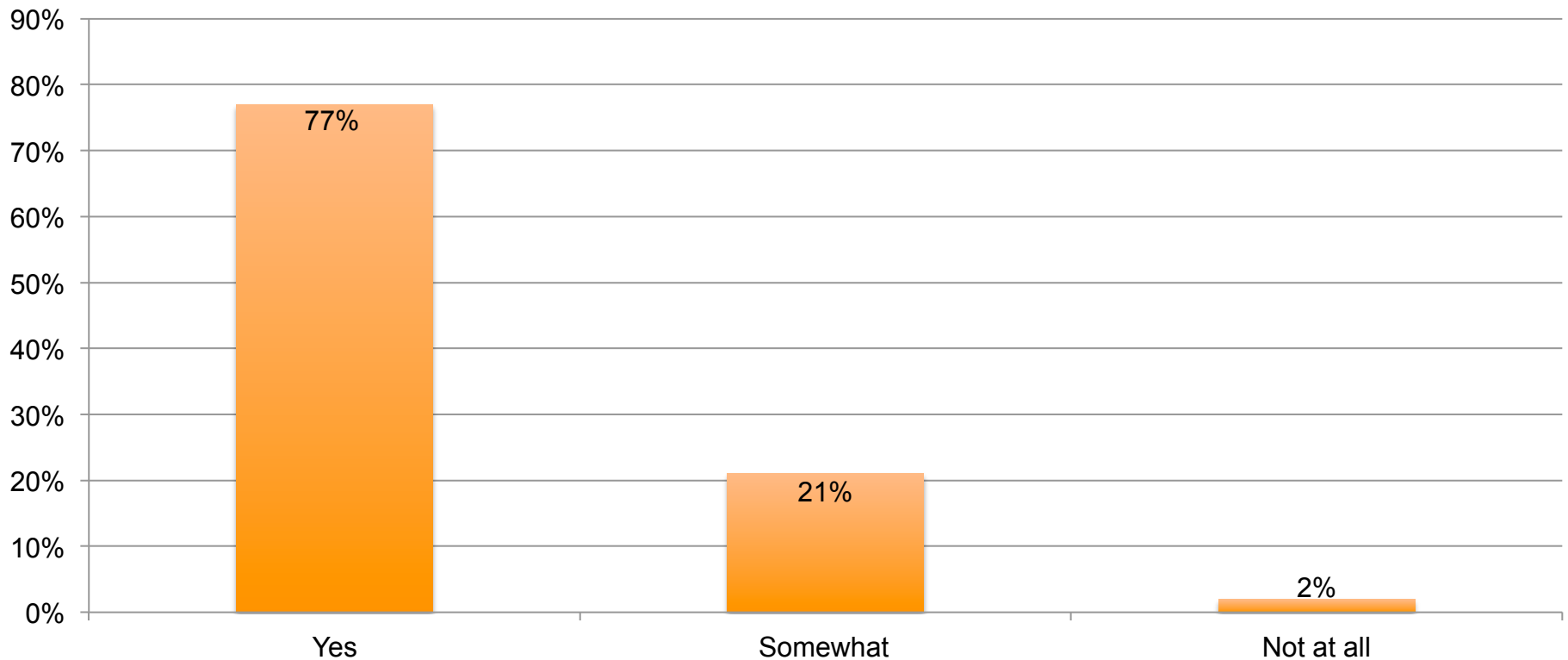
## Level 2: Satisfaction

- 100% rated the activity as very good to excellent
- 98% indicated the activity improved their knowledge
- 96% stated that they learned new strategies for patient care
- 79% said they would implement new strategies that they learned in their practice
- 100% said the program was fair-balanced and unbiased

Were our learners satisfied? **Yes!**

# Level 2: Satisfaction

**Upon completion of this activity, I can now** – Discuss the screening of patients for lung cancer; Explain approaches to evaluation of pulmonary nodules and the importance of adequate tissue acquisition for histology and molecular characterization as it pertains to treatment decisions; Describe the current classification of lung cancer patients; Explain new treatment options and genetics for lung cancer; Discuss future developments in the treatment of lung cancer.



Did learners indicate they achieved the learning objectives? **Yes! 98% believed they did.**



# Outcome Study Methodology

## Goal

To determine the effect this CME activity had on learners with respect to competence to apply critical knowledge, confidence in treating patients with diseases or conditions discussed, and change in practice behavior.

## Dependent Variables

### 1. Level 3-5: Knowledge, Competence, and Performance

Case-based vignettes and pre- and post-test knowledge questions were asked with each session in the CME activity. Identical questions were also asked to a sample of attendees 4 weeks after the program to assess retention of knowledge. Responses can demonstrate learning and competence in applying critical knowledge. The use of case vignettes for this purpose has considerable predictive value. Vignettes, or written case simulations, have been widely used as indicators of actual practice behavior.<sup>1</sup>

### 2. Practitioner Confidence

Confidence with the information relates directly to the likeliness of actively using knowledge. Practitioner confidence in his/her ability to diagnose and treat a disease or condition can affect practice behavior patterns.

### 3. Level 5: Self-Reported Change in Practice Behavior

Four weeks after CME activity, practitioners are asked if they changed practice behavior.

1. Peabody, J.W., J. Luck, P. Glassman, S. Jain, J. Hansen, M. Spell and M. Lee (2004). *Measuring the quality of physician practice by using clinical vignettes: a prospective validation study*. Ann Intern Med 14(10): 771-80.

# Outcome Study Methodology (Cont.)

## 4. Readiness to Change Behavior (Prochaska and DeClemente Model)

CME activities can motivate providers to move through different stages of change which can ultimately lead them to take action and modify their practice behavior in accordance with the objectives of the education. Movement through these stages of change is an important dependent variable to consider in evaluating the impact of CME. Participants were asked to evaluate their stage of change with respect to specific topics being presented.

- **Pre-contemplation stage:** I do not manage (XXX illness), nor do I plan to this year.
- **Contemplation stage:** I did not manage (XXX illness) before this course, but as a result of attending this course I'm thinking of managing it now.
- **Pre-contemplation/confirmation stage:** I do manage patients with (XXX Illness) and this course confirmed that I do **not** need to change my treatment methods.
- **Preparation for action stage:** I do manage patients with (XXX illness) and this course helped me change my treatment methods.

# Lung Cancer: State of the Art 2013

## **Faculty**

Jinesh Mehta, MD  
Chair, Critical Care Committee  
Associate Staff, Respiratory Institute  
Cleveland Clinic Florida  
Weston, FL

## **Learning Objectives**

- Discuss the screening of patients for lung cancer
- Explain approaches to evaluation of pulmonary nodules and the importance of adequate tissue acquisition for histology and molecular characterization as it pertains to treatment decisions
- Describe the current classification of lung cancer patients
- Explain new treatment options and genetics for lung cancer
- Discuss future developments in the treatment of lung cancer.

# Key Findings

## Lung Cancer: State of the Art 2013

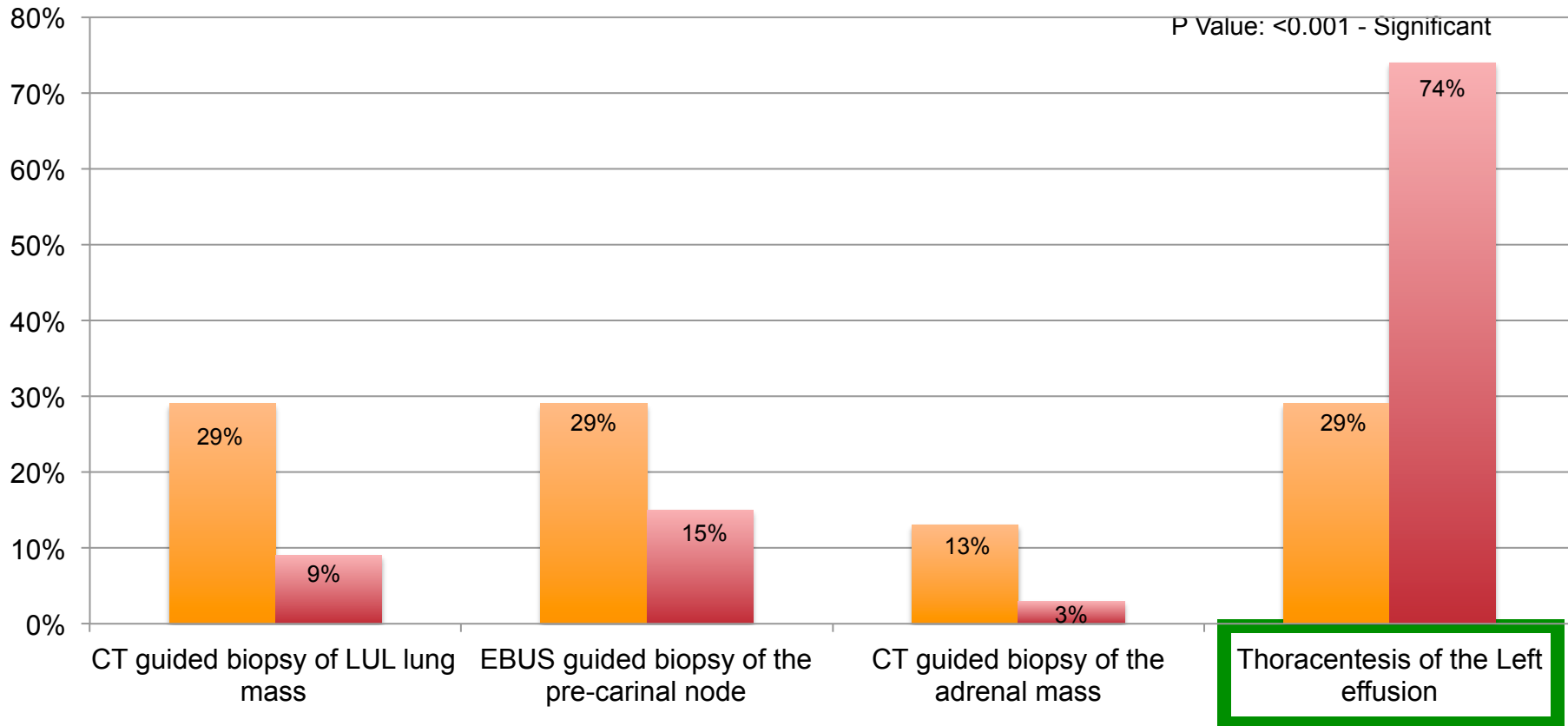
Knowledge/Competence	Learners demonstrated significant improvement in their answers from pre to post-testing on two of the four case-based questions regarding Lung Cancer.
Confidence	Whereas the majority of learners rated themselves as having low confidence in their understanding of treating Lung Cancer before the education most of the learners showed gains in confidence after the program.
Intent to Perform	As a result of this program, 19% of learners who did not manage Lung Cancer before are considering doing so, while 25% indicated that they will change their treatment methods.
Change of Practice Behavior  N=61	87% of learners who responded to our four week survey indicated that they had changed their practice behavior to implement the learning objectives of this program within four weeks after they attended the activity.

# Case Vignette Knowledge and Competence Assessment Questions

(Presented before and after lecture. Boxed answer is correct.)

A 68 year old male with a 40 pack-year history of smoking presents with a lung mass on chest radiography. His chest CT reveals a centrally located 4 cm LUL lung mass with a 3 cm pre-carinal node anteriorly, and a small to moderate Left pleural effusion. PET/CT reveals positive uptake in the LUL, pre-carinal node and Left adrenal gland.

**The next best diagnostic option in this case is:**



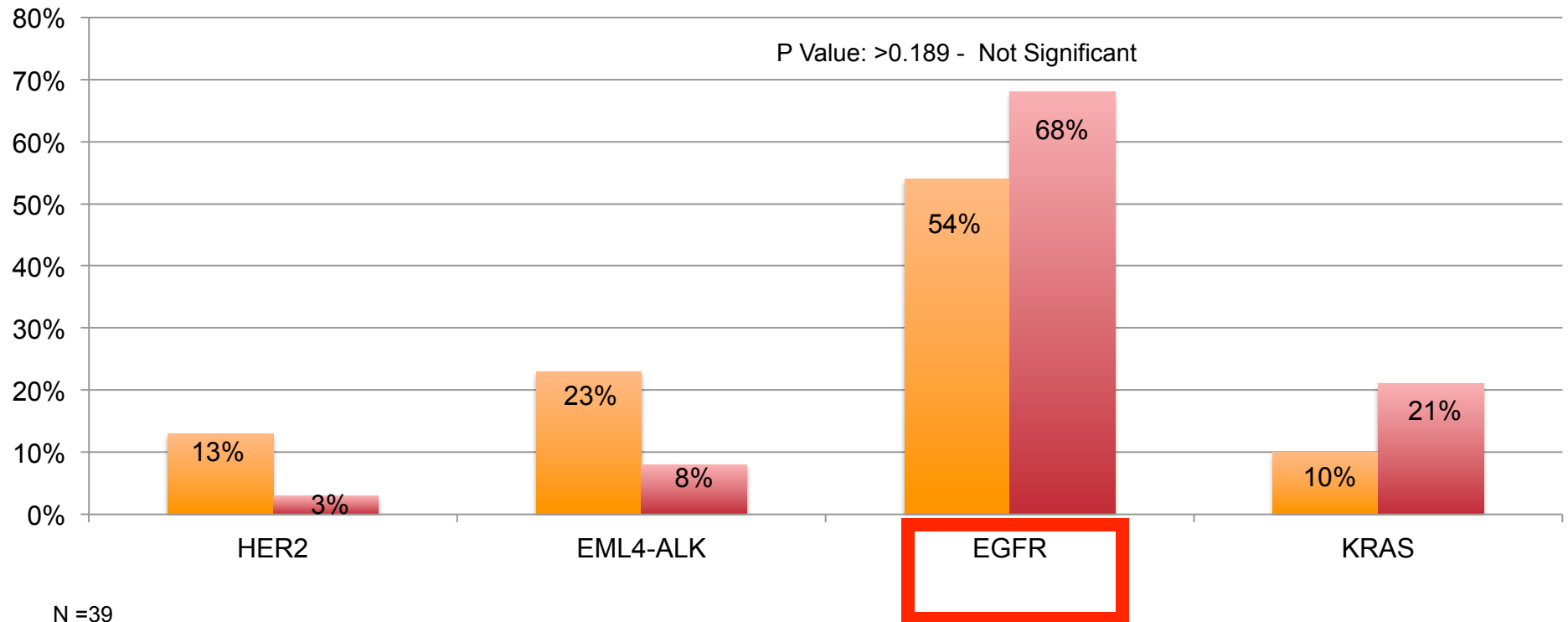
N =45

Green highlight indicates significant difference between pre and post testing.

# Case Vignette Knowledge and Competence Assessment Questions

(Presented before and after lecture. Boxed answer is correct.)

A 68 year old male with a 40 pack-year history of smoking presents with a lung mass on chest radiography. His chest CT reveals a centrally located 4 cm LUL lung mass with a 3 cm pre-carinal node anteriorly, and a small to moderate Left pleural effusion. PET/CT reveals positive uptake in the LUL, pre-carinal node and Left adrenal gland. The patient is found to have a NSCLC, which appears to be adenocarcinoma. **What mutation, if present, is most likely to impact your treatment decision:**



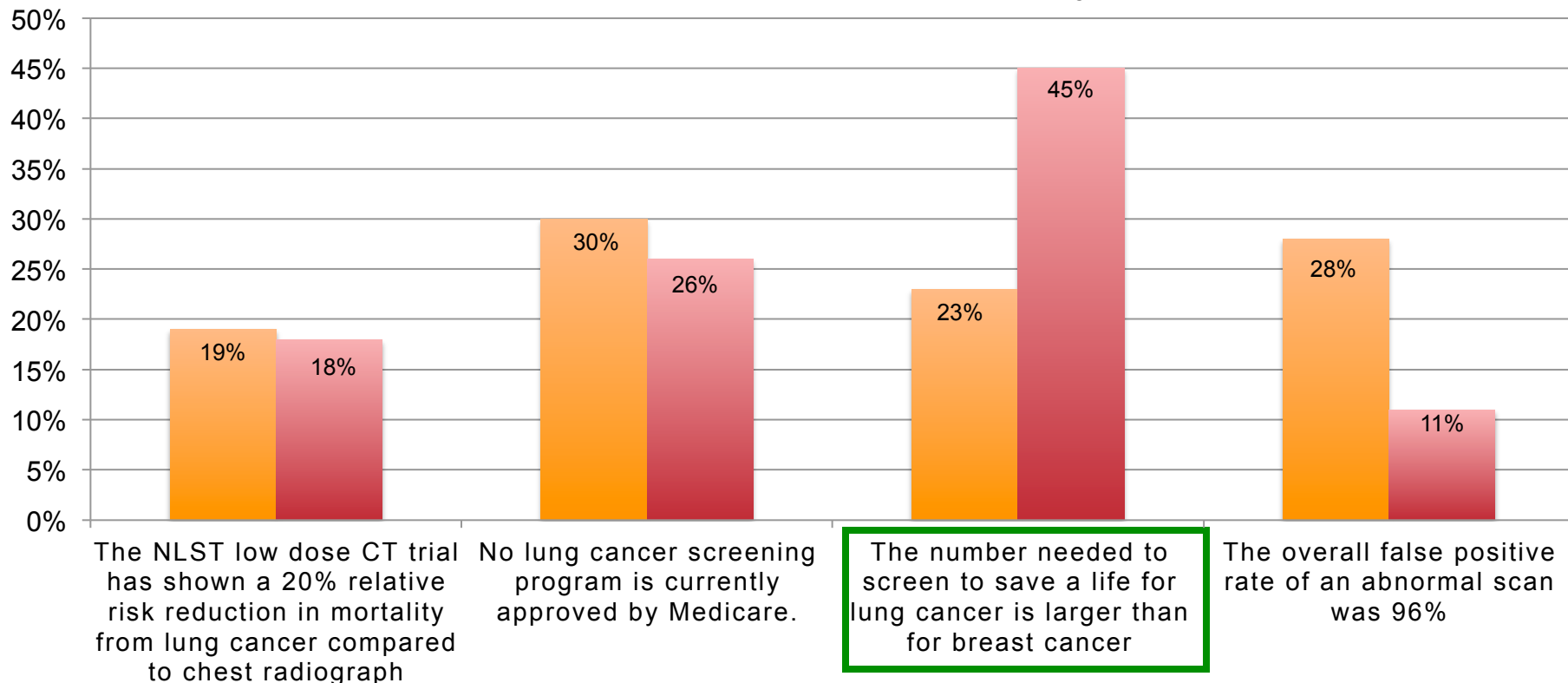
Red highlight indicates no significant difference between pre and post testing.

# Case Vignette Knowledge and Competence Assessment Questions

(Presented before and after lecture. Boxed answer is correct.)

His 65 year old brother has smoked 1 pack of cigarettes for 30 years 1ppd. He asks you if there is a way to be screened for lung cancer. All of the following are TRUE about lung cancer screening EXCEPT:

P Value: >0.040 - Significant



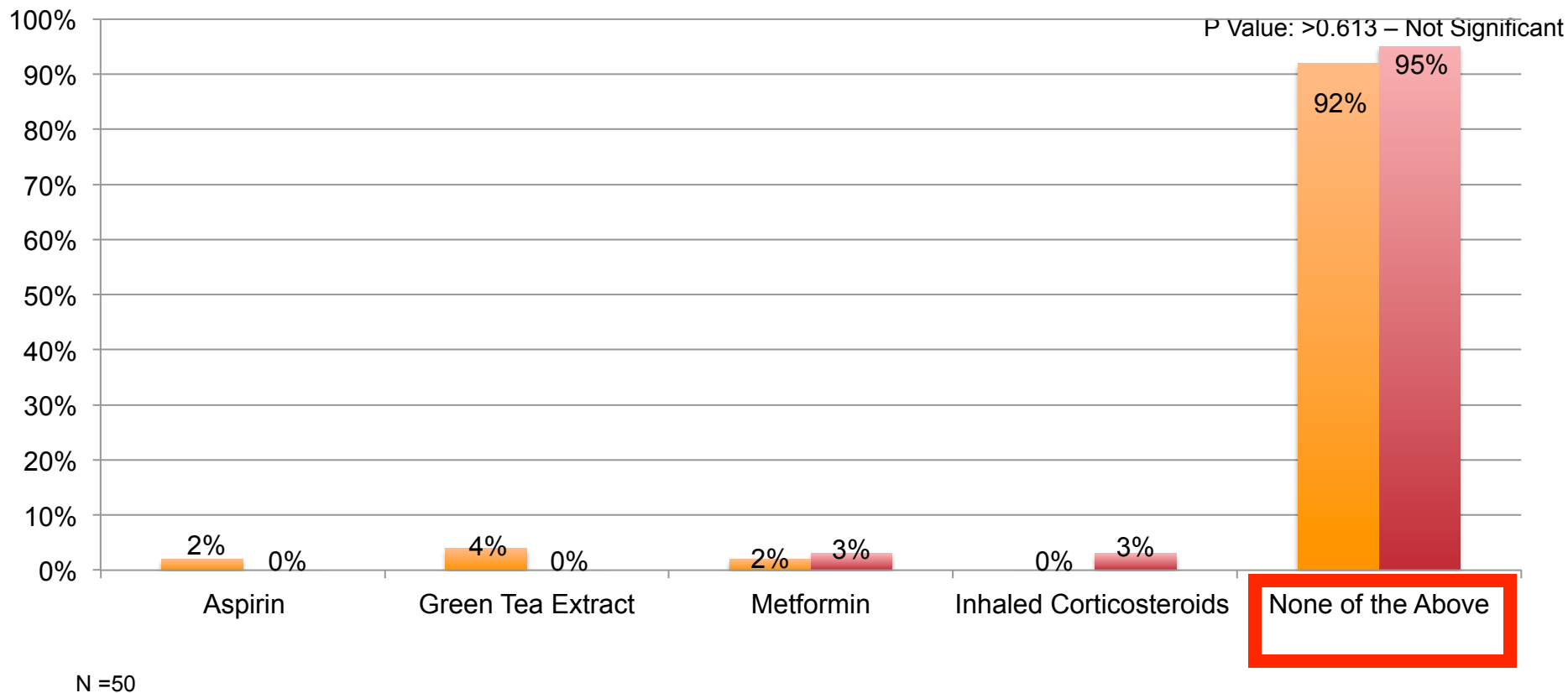
N =43

Green highlight indicates significant difference between pre and post testing.

# Case Vignette Knowledge and Competence Assessment Questions

(Presented before and after lecture. Boxed answer is correct.)

Which of the following would you recommend to his brother as a means to prevent lung cancer from developing:



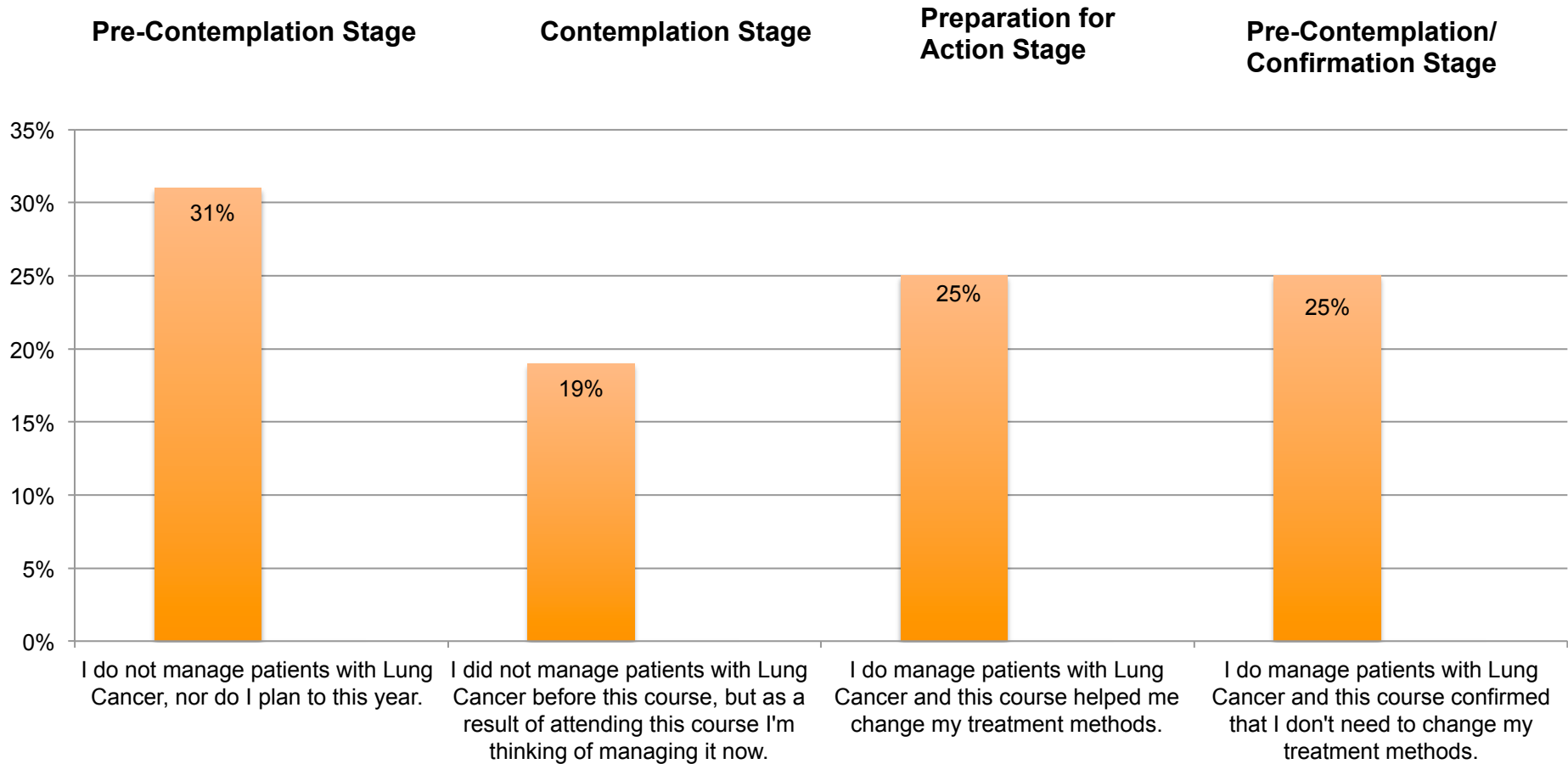
Red highlight indicates no significant difference between pre and post testing.



# Change in Practice Behavior Question

Presented after lecture.

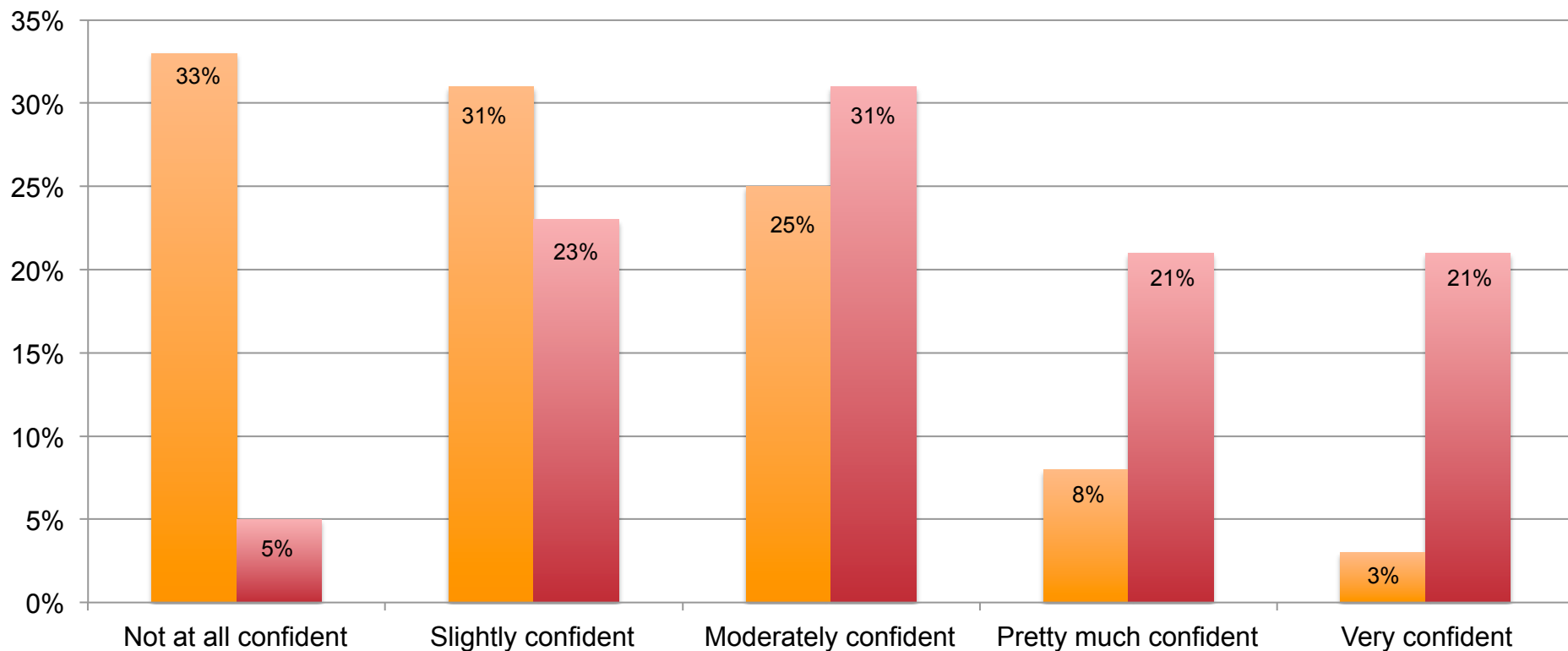
Which of the statements below describes your approach to diagnosing and treating patients with Lung Cancer?



# Changes in Confidence from Pre to Post-Testing

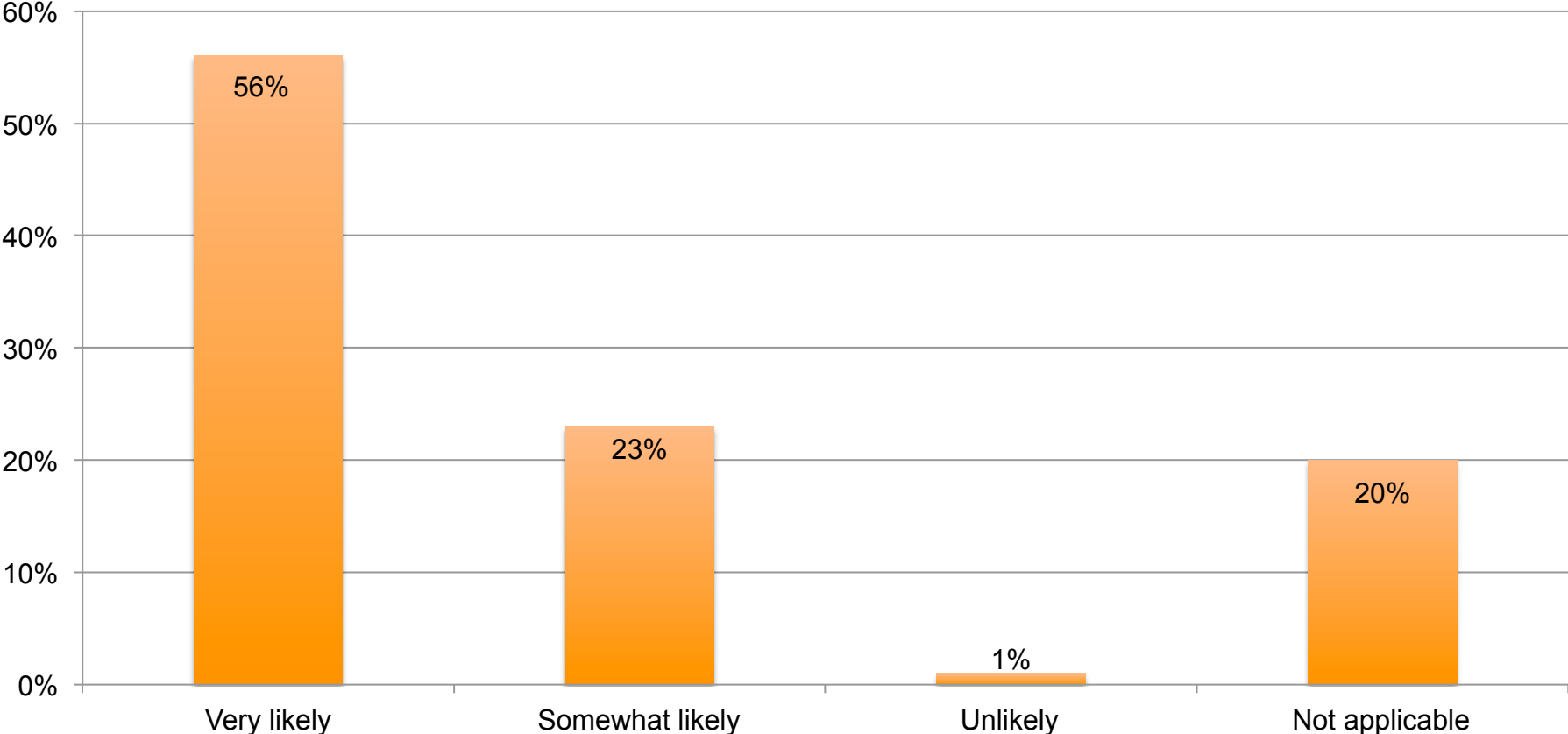
## Lung Cancer: State of the Art 2013

On a scale of 1 to 5: Please rate how confident you would be treating a patient with lung cancer:



N =39

# Intention to Change Practice Behavior and Implement Learning



N =119

# Discussion and Implications

## Lung Cancer: State of the Art 2013

Lung cancer is the number one killer among cancers, and in spite of advancements, continues to pose a huge burden to our population. There has been new advances, and new diagnostic and therapeutic interventions in the making. A comprehensive review of our current knowledge was delivered during this program

**Knowledge/Competence:** Attendee knowledge was assessed at 2 points for this activity—prior to and immediately following the activity using the case vignettes and questions described earlier. The results indicated an improvement in knowledge in two out of four questions in a statistically significant manner with two other questions trending toward improvement, but not reaching significance.

**Readiness for Practice Change:** Forty-five percent of attendees claimed that they will now further diagnose and treat lung cancer or will change their practice patterns as a result of exposure to this program.

**Confidence:** Participants indicated a strong overall increase in self-reported confidence levels in managing patients with this lung cancer. Attendees who reported that they felt very confident in their knowledge rose from 3% to 21% by the end of the activity.

**Change in Practice Behavior:** Seventy nine percent of attendees suggested they were likely or very likely to change their practice patterns as a result of this event.

**Summary:** Future programming should continue to educate clinicians on current diagnoses guidelines as well as new methods and treatment algorithms.