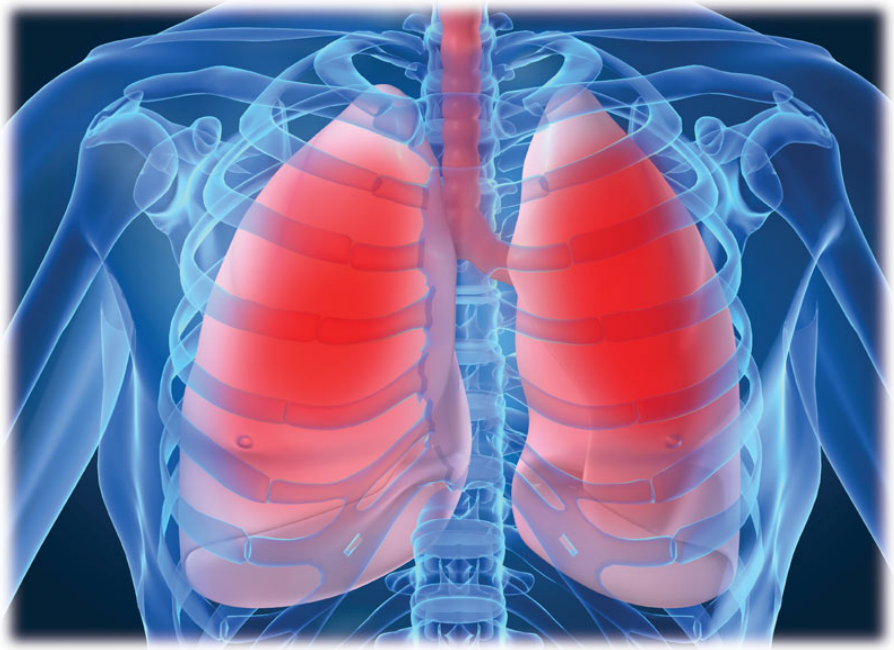
NATIONAL ASSOCIATION FOR CONTINUING EDUCATION



What is New in Lung Cancer: Diagnosis and Management

Outcome Report

Challenges in Pulmonary and Critical Care: 2011

Presented at:
Cleveland Clinic Florida
Weston, Florida
December 3, 2011

Report Date: 12/31/11

Course Director

Franck Rahaghi, MD, **MHS**
Director, Pulmonary Hypertension Clinic
Director, Pulmonary Education and Rehabilitation
Chair of Quality
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 educational activity for a maximum of 4 *AMA PRA Category 1 Credits™.*

*The Cleveland Clinic Florida designates this educational activity for a maximum of 2 *AMA PRA Category 1 Credits™.*

* This applies to the full day CME activity entitled Challenges in Pulmonary and Critical Care: 2011.

Commercial Support

Challenges in Pulmonary and Critical Care: 2011 CME activity was supported through educational grants or donations from the following companies:

Actellion
Boehringer Ingelheim
CSL Behring
United Therapeutics Corporation

Agenda

7:20-7:50	Continental Breakfast and Registration
7:50-8:00	Welcome Remarks Franck Rahaghi, MD,MHS, FCCP
8:00-9:00	**What is New in Lung Cancer: Diagnosis and Management** **Eduardo Oliveira, MD, MBA**
9:00-10:00	COPD: New Developments Charlie Strange, MD
10:00- 10.30	Break/Vendor Area
10:30-11:00	Keynote Speaker: Representative Debbie Wasserman Schultz, Florida's 20th District –Health Care in the United States
11:00-12:00	Anticoagulation: What is New Victor Tapson, MD
12:00- 1:00	Lunch/Exhibits
1:00-2:00	*Pulmonary Hypertension: State of the Art Franck Rahaghi, MD, MHS, FCCP
2:00-3:00	*Alpha-1 Antitrypsin Deficiency: Future of Diagnosis and Treatment Franck Rahaghi, MD, MHS, FCCP
3:00-3:15	Break/Vendor Area
3:15-4:15	Sleep Medicine: Latest Advances in Sleep Medicine: Diagnosis and Treatment Laurence Smolley, MD
4:15-4:30	Closing Remarks Franck Rahaghi, MD, MHS, FCCP

Levels of Evaluation

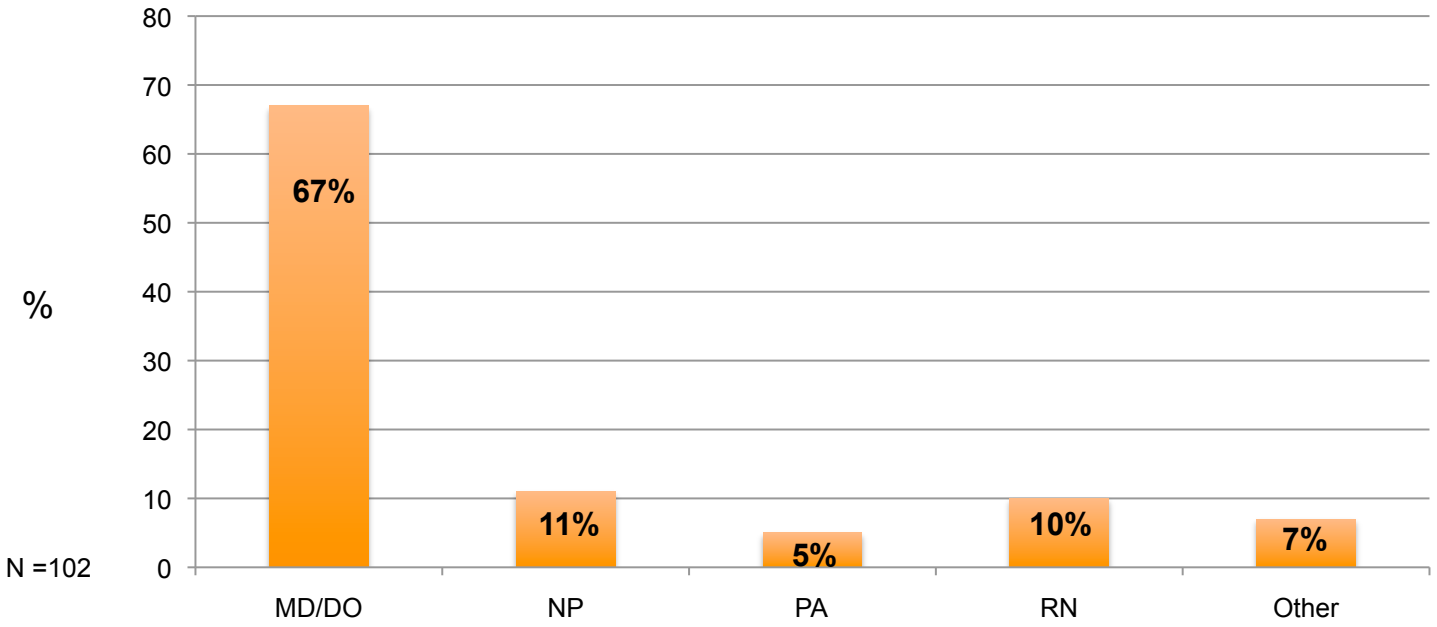
Consistent with the policies of the ACCME, NACE evaluates the effectiveness of all CME activities using a systematic process based on the following model:

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

- 102 attendees
- 67% Physicians; 11% NPs; 5% PAs; 10% RNs; 7% Other
- Over 80% in community-based practice
- 47% PCPs, 21% Pulmonologists; 1%Endocrinologists; 1% Cardiologists; 2% Rheumatologist; 28% Other or did not respond



Did we reach the right audience? Yes!

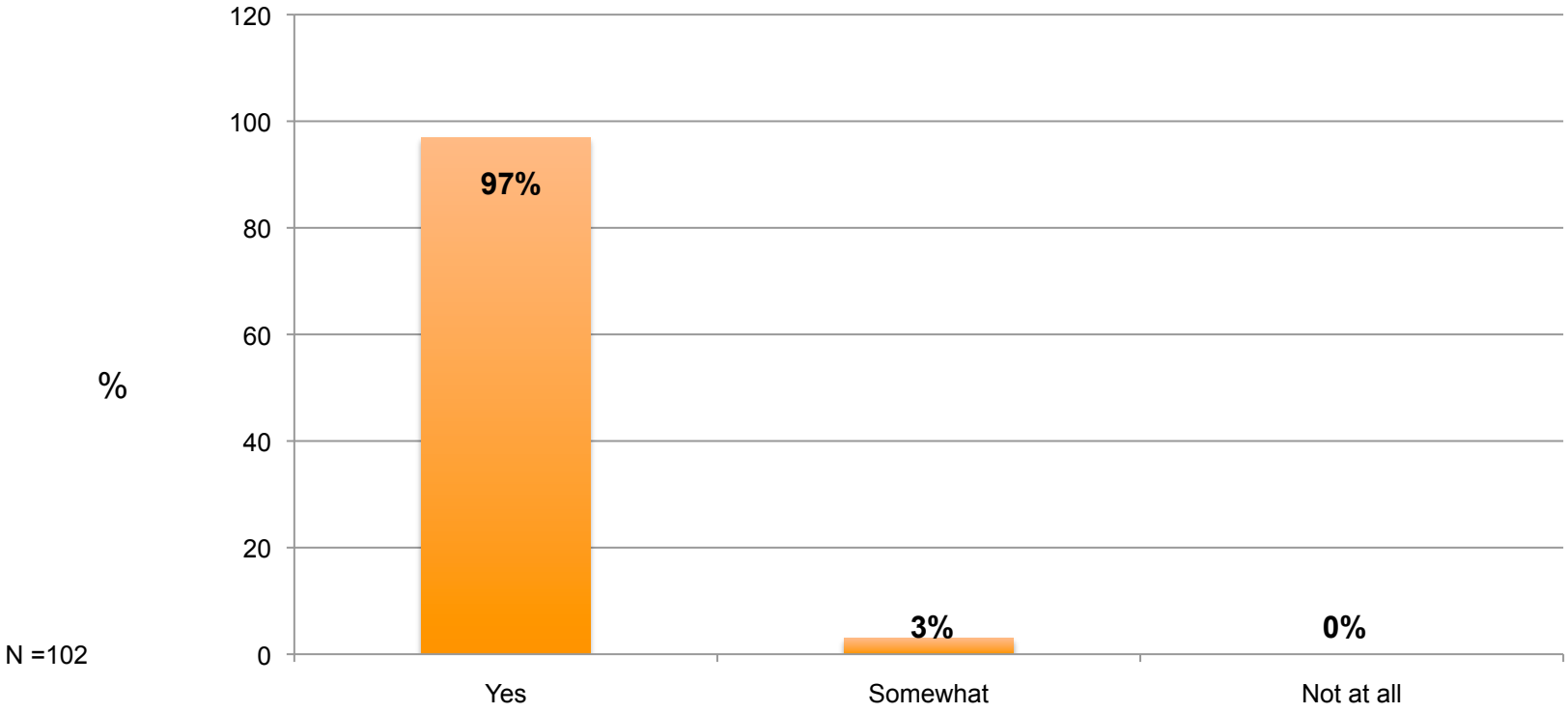
Level 2: Satisfaction

- 97% rated the activity as very good to excellent
- 99% indicated the activity improved their knowledge
- 95% stated that they learned new strategies for patient care
- 89% said they would implement new strategies that they learned in their practice
- 99% 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 most recent data and recommendations regarding lung cancer screening; Describe current modalities for the diagnosis and staging of lung cancer; Discuss evidence based medicine treatment modalities for lung cancer.



Did learners indicate they achieved the learning objectives?
Yes! 100% 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

- **Level 3: Competence to Apply Critical Knowledge**

  Case-based vignettes and pre- and post-test knowledge questions were asked with each session in the CME activity. 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. [1]

- **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.

- **Level 4: Self-Reported Change in Practice Behavior**

  Intent to change and change four weeks after CME activity.

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 Med14(10): 771-80.

What is New in Lung Cancer: Diagnosis and Management

Faculty

Eduardo Oliveira, MD, MBA

Chairman, Division of Medicine

Director of the Interventional Pulmonology Program

Cleveland Clinic Florida

Weston, FL

Learning Objectives

- Discuss most recent data and recommendations regarding lung cancer screening
- Describe current modalities for the diagnosis and staging of lung cancer
- Discuss evidence based medicine treatment modalities for lung cancer

Key Findings

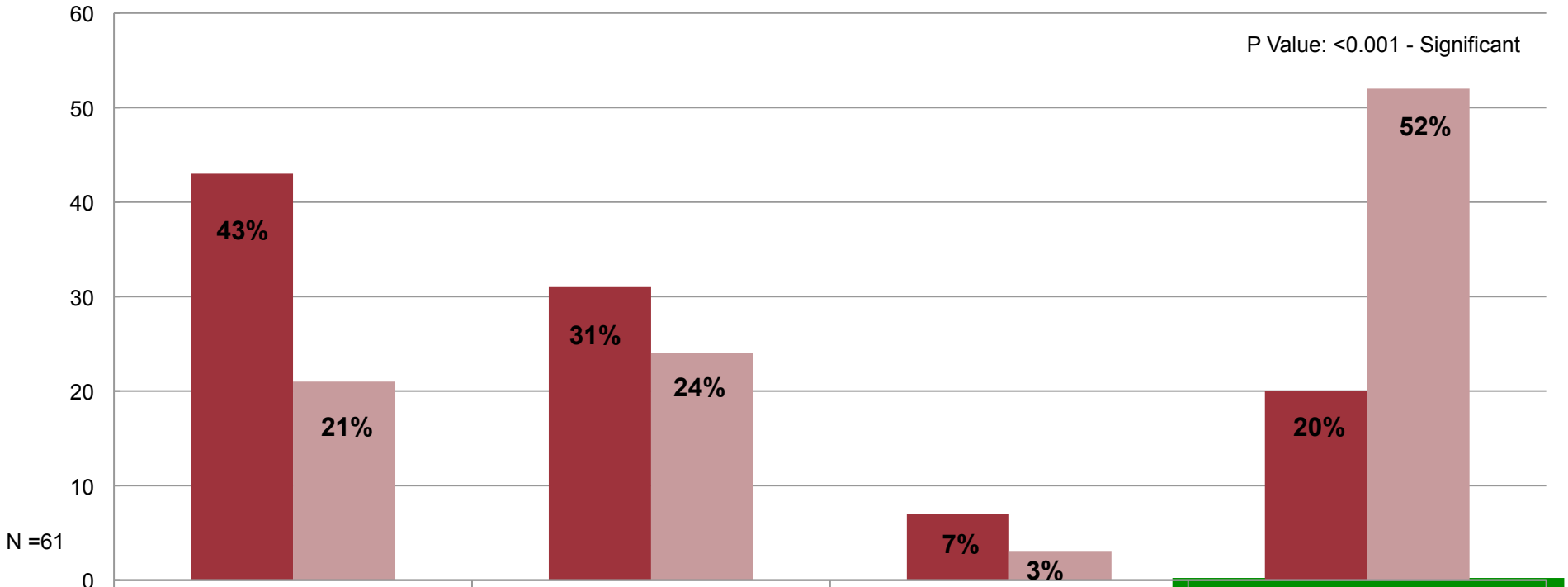
What is New in Lung Cancer: Diagnosis and Management?

Knowledge/Competence	Learners demonstrated significant improvement in their answers from pre to post-testing on four of the four case-based questions regarding diagnosis and management of Lung Cancer.
Confidence	Participants reported higher confidence levels in providing care to patients with this condition following the education.
Intent to Perform	Learners stated that they were very likely (63%) to somewhat likely (28%) to implement strategies learned at this session in their practice.

Case Vignette Knowledge and Competence Assessment Questions

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

65 yo male with a 30 pack-year history of smoking and a history of CHF presents with a left upper lobe lung mass by chest radiograph. His chest CT reveals a LUL lung mass with a 3 cm pre-carinal node anteriorly, and a small to moderate L pleural effusion. PET/CT reveals positive uptake in the LUL, pre-carinal node and L adrenal gland.
The next best diagnostic option in this case is:



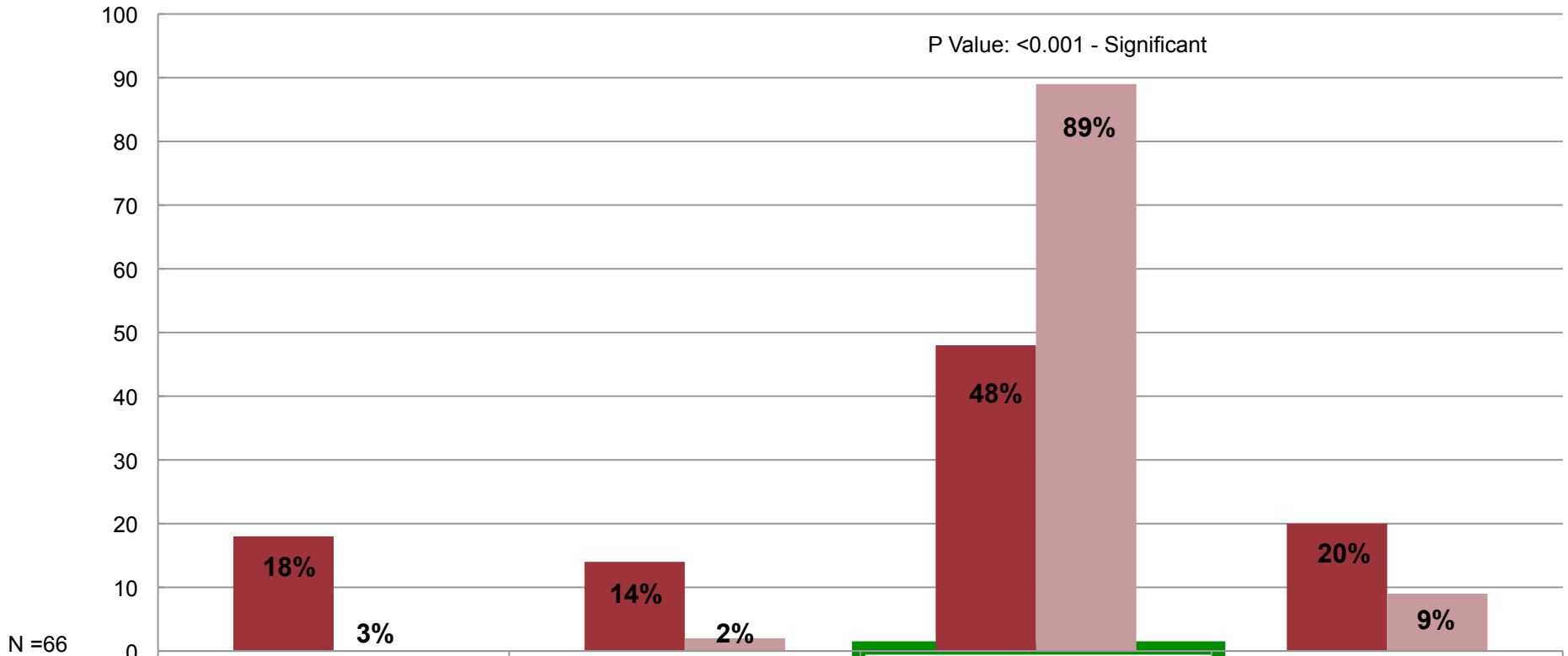
	CT guided biopsy of LUL lung mass	EBUS guided biopsy of the pre-carinal node	CT guided biopsy of the adrenal mass	Thoracenthesis of the L effusion
Pre %	43	31	7	20
Post %	21	24	3	52

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.)

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?



N =66

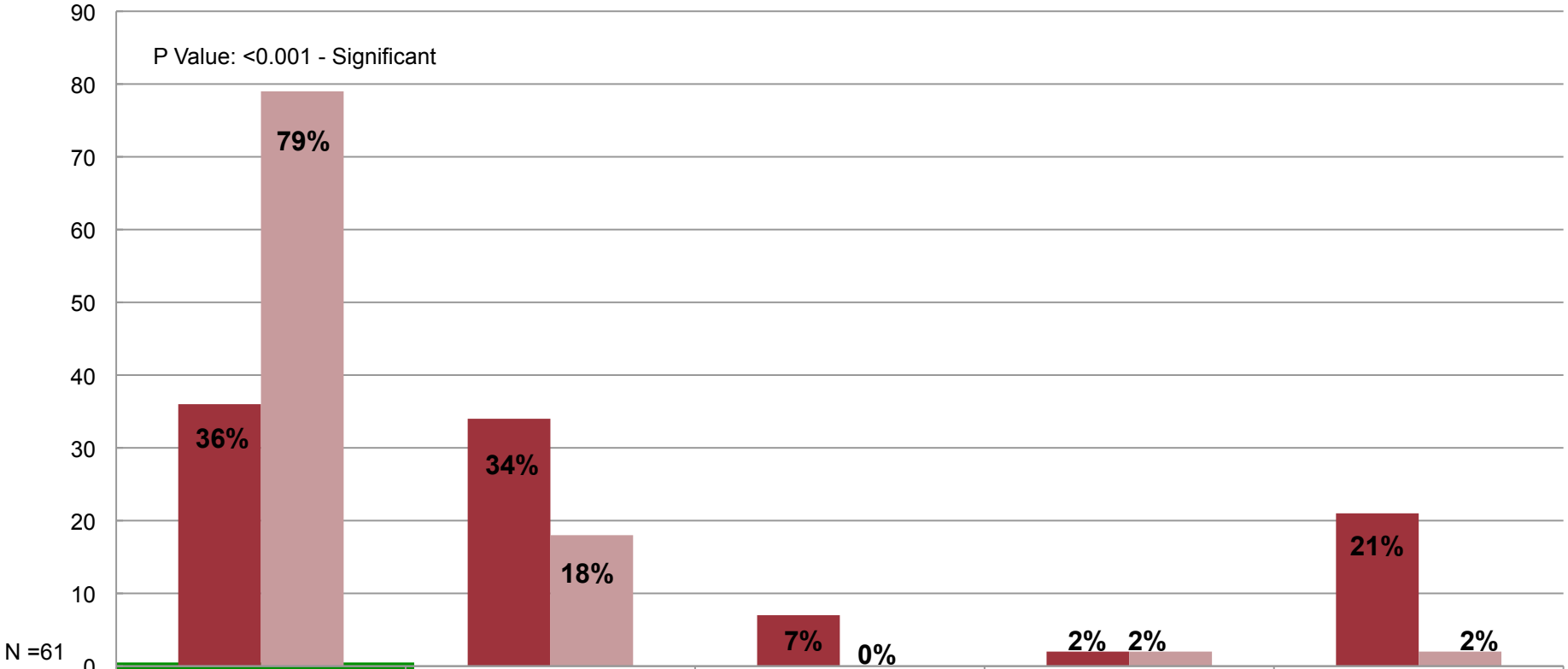
	HER2	EML4-ALK	EGFR	KRAS
Pre %	18	14	48	20
Post %	0	2	89	9

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.)

The oncologist decides to give the patient an EGFR-TK inhibitor. Which factor below has been associated with fatal side effects?



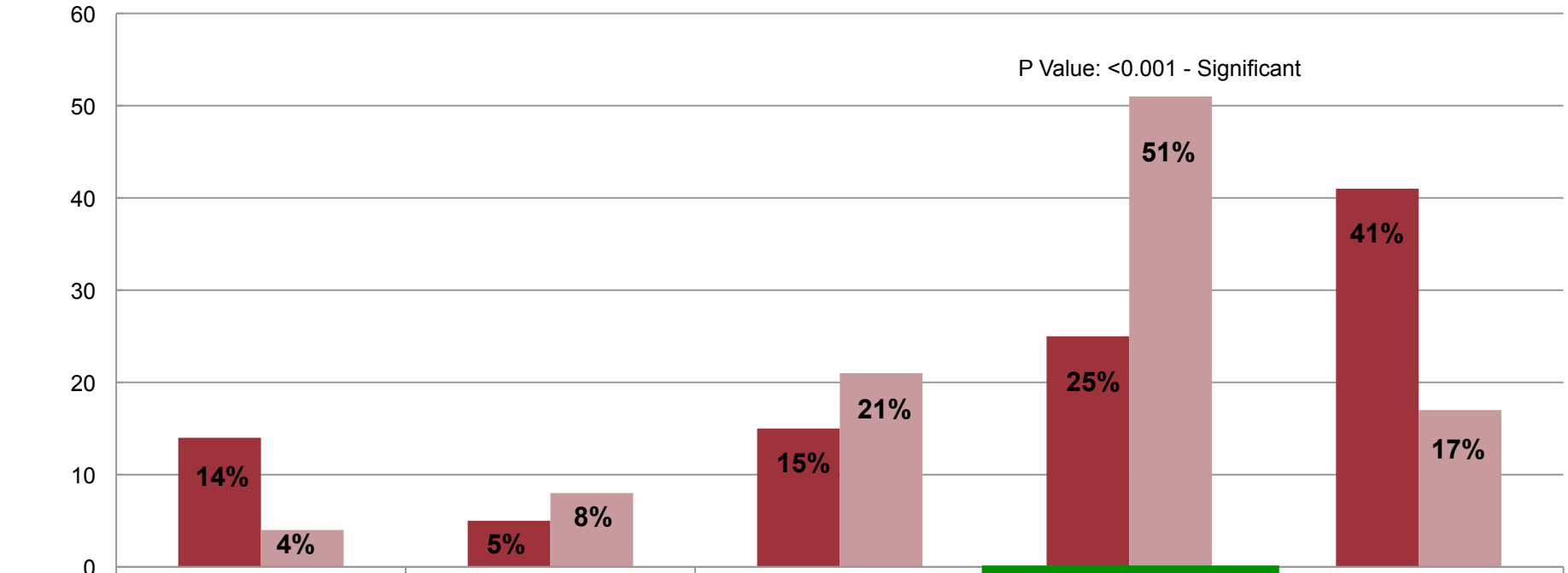
	Squamous cell type	NSCLC otherwise not specified	Women	Nonsmokers	Asian ethnicity
Pre %	36	34	7	2	21
Post %	79	18	0	2	2

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.)

His brother is 50 years old and has smoked for 30 years 1ppd. He asks you if there is a way to be screened for lung cancer. All of the above is correct about lung cancer screening except:

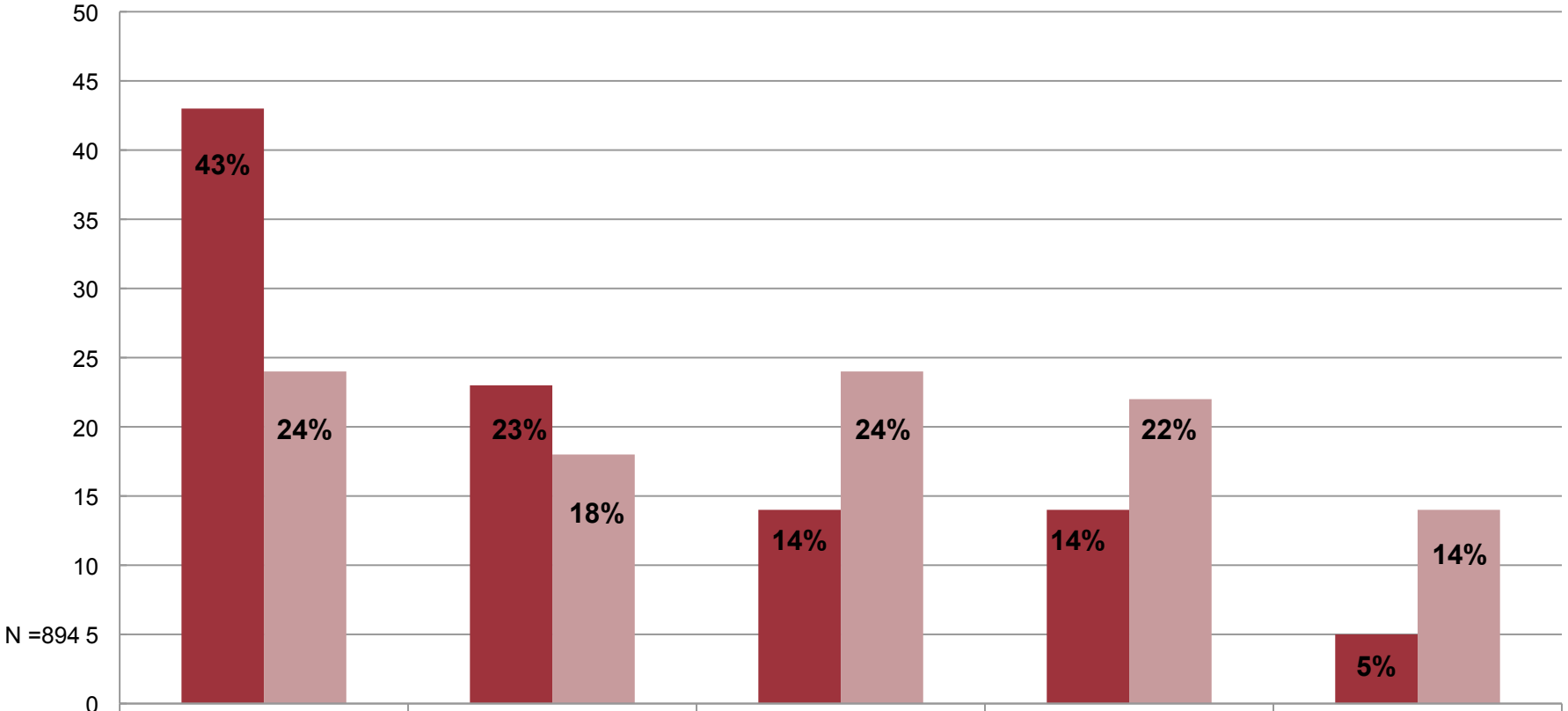


N =59	The NSLT low dose CT trial has shown a 20% relative risk reduction in mortality from lung cancer compared to chest radiograph	The all cause mortality of the CT screening arm was reduced by 6.7%	No lung cancer screening program is currently approved by Medicare.	The number needed to screen for lung cancer is larger than for breast as well as colorectal cancer	The overall false positive rate of an abnormal scan was 96%
Pre %	14	5	15	25	41
Post %	4	8	21	51	17

Green highlight indicates significant difference between pre and post testing.

Changes in Confidence from Pre to Post-Testing
What is New in Lung Cancer: Diagnosis and Management

On a scale of 1 to 5 please rate how confident you would be in treating patients with this condition.

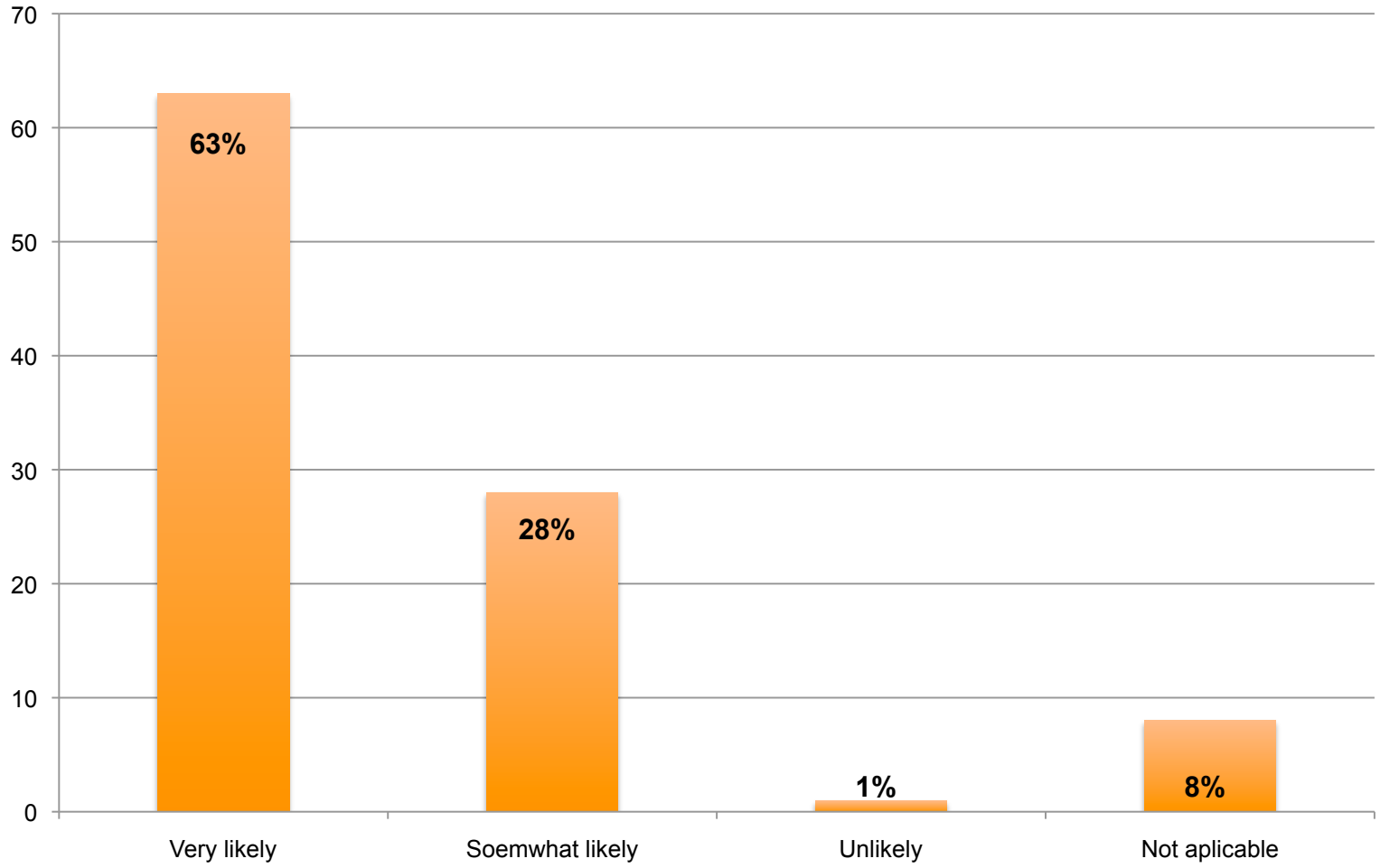


	Not at all confident	Slightly confident	Moderately confident	Pretty much confident	Very confident
Pre %	43	23	14	14	5
Post %	24	18	24	22	14

Intention to Change Practice Behavior and Implement Learning
What is New in Lung Cancer: Diagnosis and Management

How likely are you to implement strategies learned from this presentation in your practice?

N =102



Discussion and Implications

What is New in Lung Cancer: Diagnosis and Management

The objectives of this educational activity were to discuss recent data and recommendations for the screening of lung cancer, describe current modalities for the diagnosis and staging of lung cancer, and discuss evidence-based treatment options for patients with lung cancer.

To assess the educational effectiveness of the activity, attendee knowledge was assessed at 2 points for this program: prior to the lecture and immediately following the lecture using the case vignettes and knowledge questions listed above. In four out of four questions, attendees showed they improved in their knowledge of lung cancer screening and treatment based on the information they learned during the educational activity.

Furthermore, over 95% of the attendees surveyed three weeks after they attended the activity indicated that they had made some changes in their practice behavior to implement the learning objectives of the program.

The presenter, Dr. Edward Oliveira, was well received by the attendees as they rated him to be knowledgeable in the topic, presented findings in a fair and balanced manner, and he was able to improve the confidence of the attendees.

Based on the data collected at this educational activity, there appears to be a need for further education on this topic with respect to new treatment for advanced lung disease and screening CT protocols.