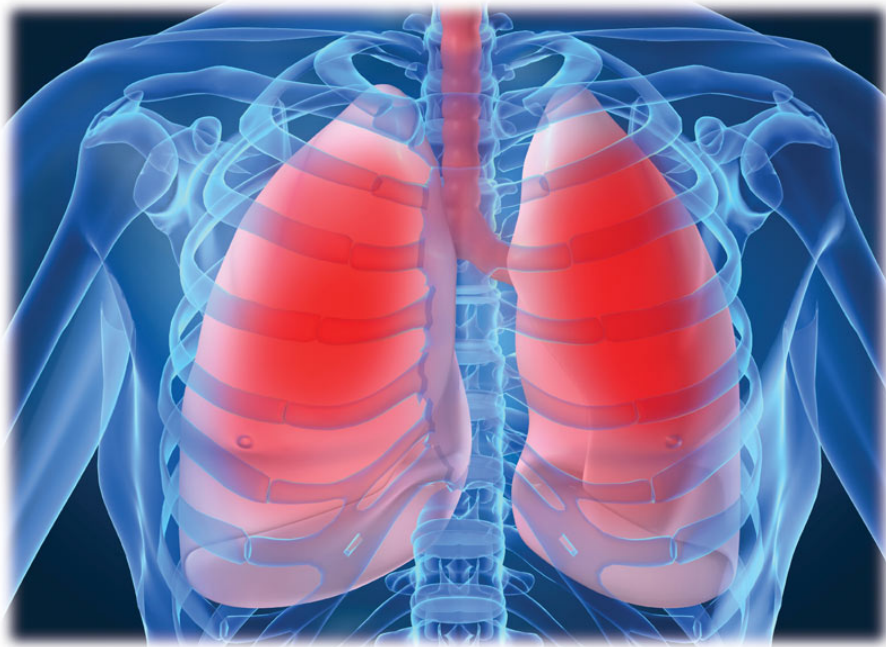




NATIONAL ASSOCIATION FOR CONTINUING EDUCATION



Electromagnetic Navigation Bronchoscopy
and Bronchial Thermoplasty: Two
Techniques That Are Revolutionizing
Bronchoscopy

Final Outcome Report

Challenges in Pulmonary and Critical Care: 2012

**Presented at:
Cleveland Clinic Florida
Weston, Florida
December 1, 2012**

Report Date: May 2, 2013

Course Director

Franck Rahaghi, MD, MHS, FCCP

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 live activity for a maximum of 7 *AMA PRA Category 1 Credits*[™]. Physicians should only claim the credit commensurate with the extent of their participation in the activity.

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of University of Massachusetts Medical School and the National Association for Continuing Education. The University of Massachusetts Medical School is accredited by the ACCME to provide continuing medical education for physicians.

The University of Massachusetts Medical School designates this live activity for a maximum of 1 *AMA PRA Category 1 Credit*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Commercial Support

Challenges in Pulmonary and Critical Care: 2012 CME activity was supported through educational grants or donations from the following companies:

Actellion

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Hospira, Inc.

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Agenda

7:15-7:50	Continental Breakfast and Registration	12:15- 1:00	Lunch Break/Exhibits
7:50-8:00	Welcome Remarks Franck Rahaghi, MD, MHS, FCCP	1:00-2:00	Idiopathic Pulmonary Fibrosis: Updates from IPFNET and New Horizons Robert Kaner, MD
8:00-9:00	Electromagnetic Navigation Bronchoscopy and Bronchial Thermoplasty: Two Techniques That Are Revolutionizing Bronchoscopy Eduardo Oliveira, MD, MBA	2:00-3:00	New Directions in Treatment of Asthma Raed A. Dweik, MD
9:00-10:00	COPD: New Developments, New Treatment Horizons Charlie Strange, MD	3:00-3:15	Break/Exhibits
10:00- 10.15	Break/Exhibits	3:15-4:15	Sedation in the ICU Jinesh Mehta, MD
10:15-11:15	Alpha-1 Antitrypsin Deficiency: How to Change Franck Rahaghi, MD, MHS, FCCP	4:15-5:315	Management of Chronic Cough Gustavo Ferrer, MD
11:15-12:15	Pulmonary Hypertension: A Disease Evolution Ioana Preston, MD	5:15-5:30	Closing Remarks Franck Rahaghi, MD, MHS, FCCP

Levels of Evaluation

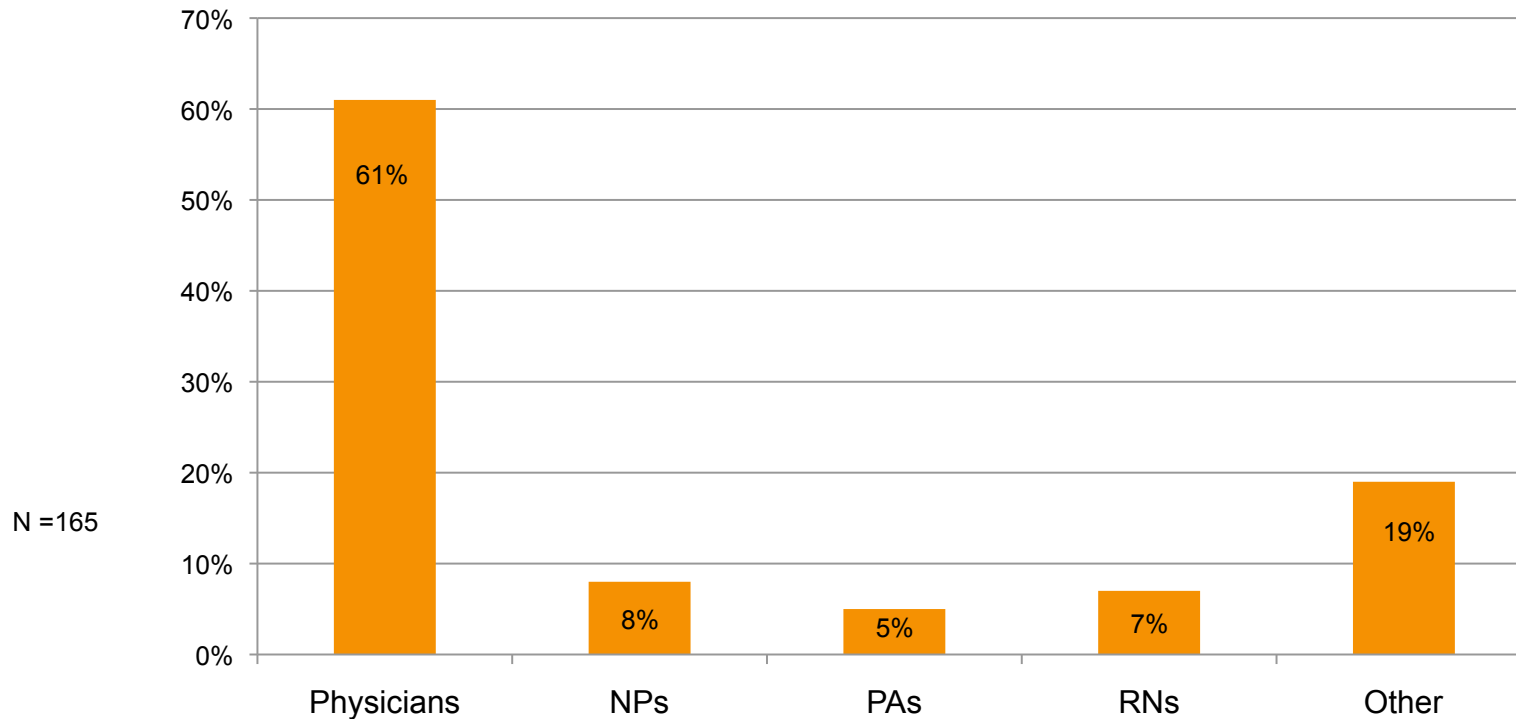
Consistent with the policies of the ACCME, NACE evaluates the effectiveness of all CME activities using a systematic process based on the following model:

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

- 122 attendees
- 61% Physicians; 8% NPs; 5% PAs; 7% RNs; 19% Other
- Over 40% in community-based practice
- 37% PCPs, 40% Pulmonologists; 3% Rheumatology; 3% Cardiologists; 17% Other or did not respond



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

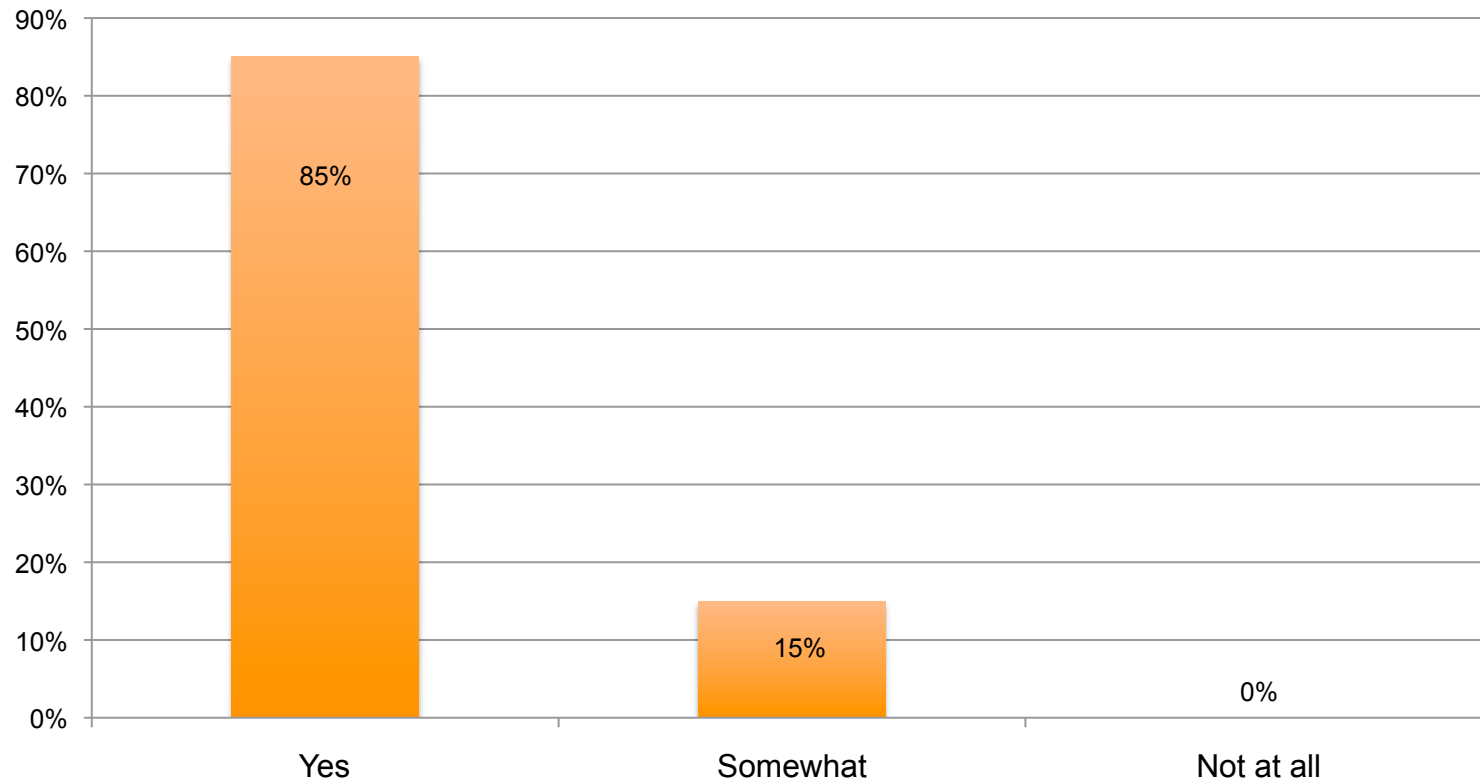
Level 2: Satisfaction

- 100% rated the activity as very good to excellent
- 98% indicated the activity improved their knowledge
- 98% stated that they learned new strategies for patient care
- 85% 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 – Define the methodology and advantages of navigational bronchoscopy; Describe bronchial thermoplasty and review the data for the procedure; Define patient selection for these procedures:



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 Med 14 (10): 771-80.

Electromagnetic Navigation Bronchoscopy and Bronchial Thermoplasty: Two Techniques That Are Revolutionizing Bronchoscopy

Faculty

Eduardo Oliveira, MD, MBA
Chairman, Division of Medicine
Director of the Interventional Pulmonology Program
Cleveland Clinic Florida
Weston, FL

Learning Objectives

- Define the methodology and advantages of navigational bronchoscopy
- Describe bronchial thermoplasty and review the data for the procedure
- Define patient selection for these procedures

Key Findings

Electromagnetic Navigation Bronchoscopy and Bronchial Thermoplasty: Two Techniques That Are Revolutionizing Bronchoscopy

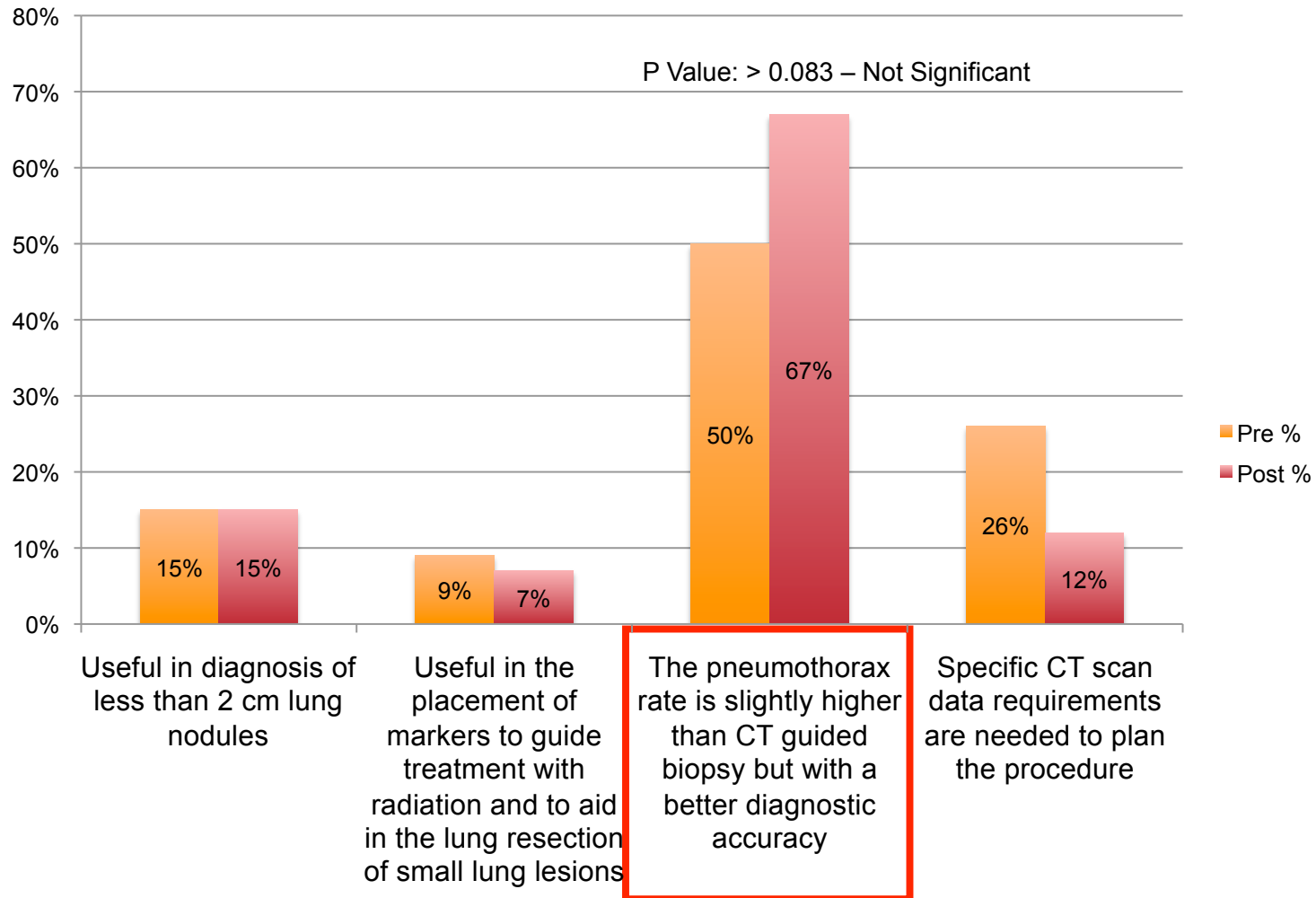
Knowledge/Competence	Learners demonstrated improvement in their answers from pre to post-testing on three of the three case-based questions regarding Electromagnetic Navigation Bronchoscopy and Bronchial Thermoplasty.
Confidence	Whereas the majority of learners rated themselves as having very low confidence in their understanding the use of Electromagnetic Navigation Bronchoscopy and Bronchial Thermoplasty before the education most of the learners showed very high gains in confidence after the program.
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.
Change of Practice Behavior	89% 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.

N=57

Case Vignette Knowledge and Competence Assessment Questions

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

The statements below are true with respect to electromagnetic navigation guided bronchoscopy except:

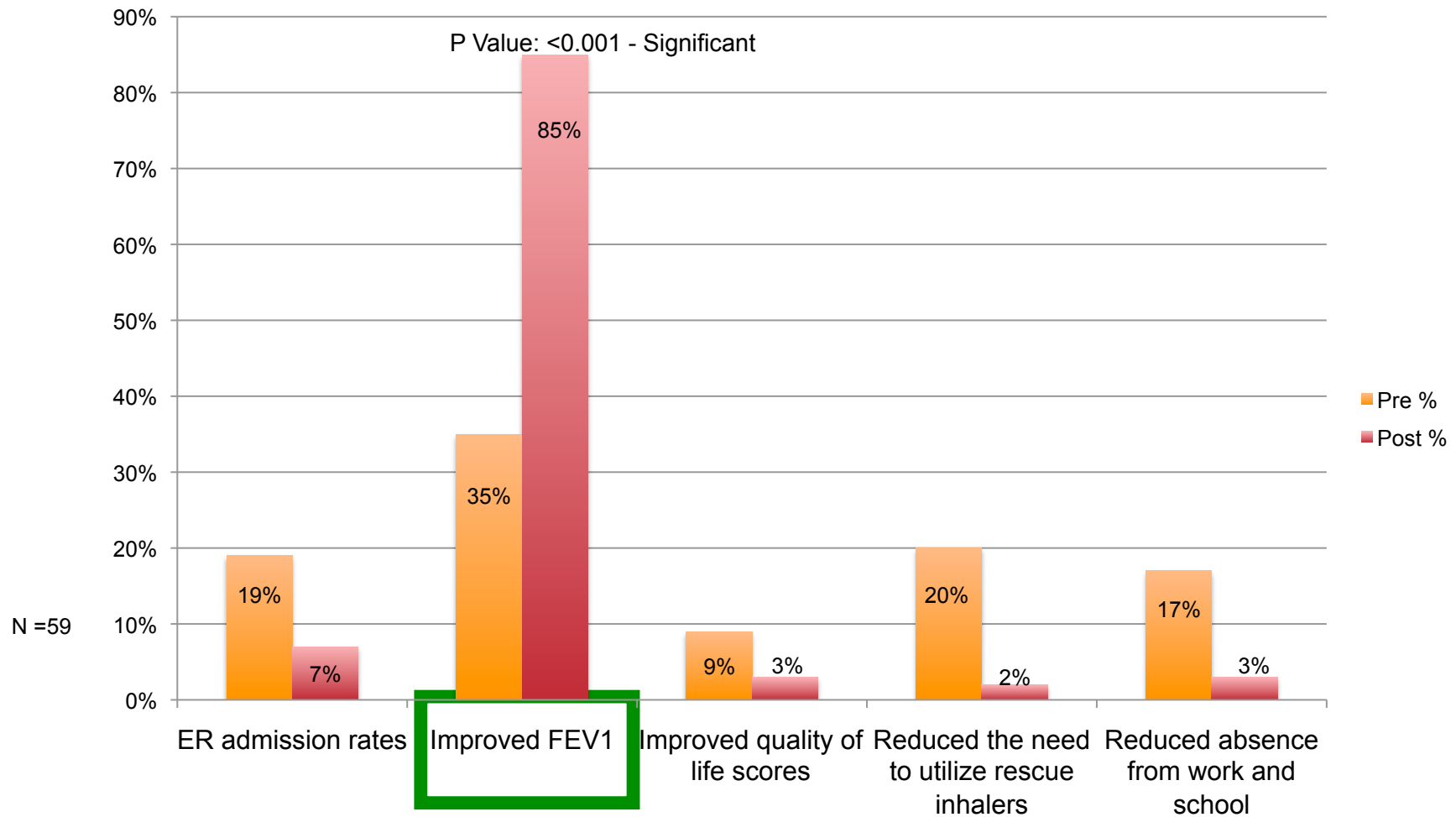


Red highlight indicates no significant difference between pre and post testing.

Case Vignette Knowledge and Competence Assessment Questions

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

Bronchial thermoplasty has been shown to improve the following in patients with moderate to severe asthma except:

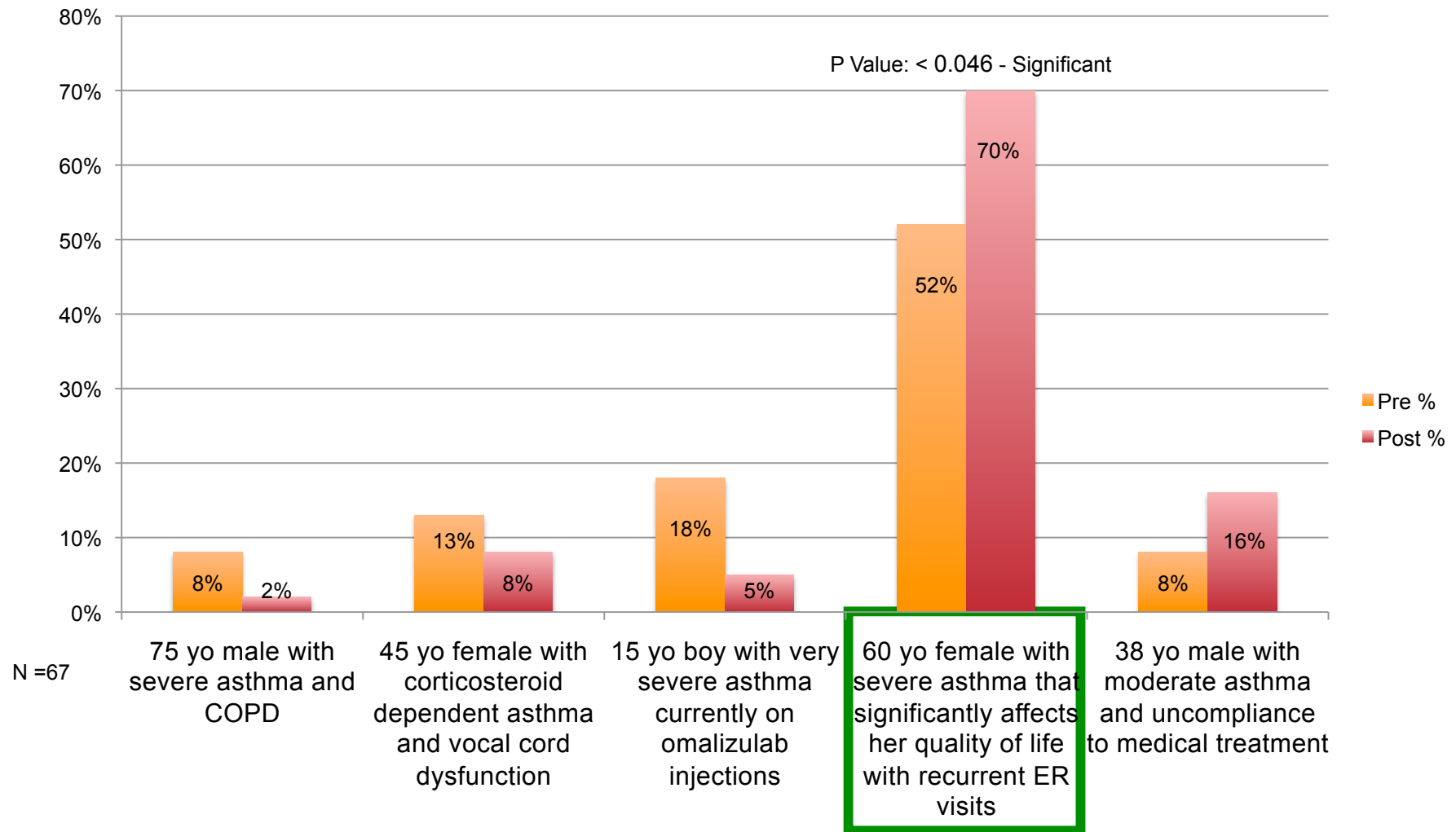


Green highlight indicates significant difference between pre and post testing.

Case Vignette Knowledge and Competence Assessment Questions

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

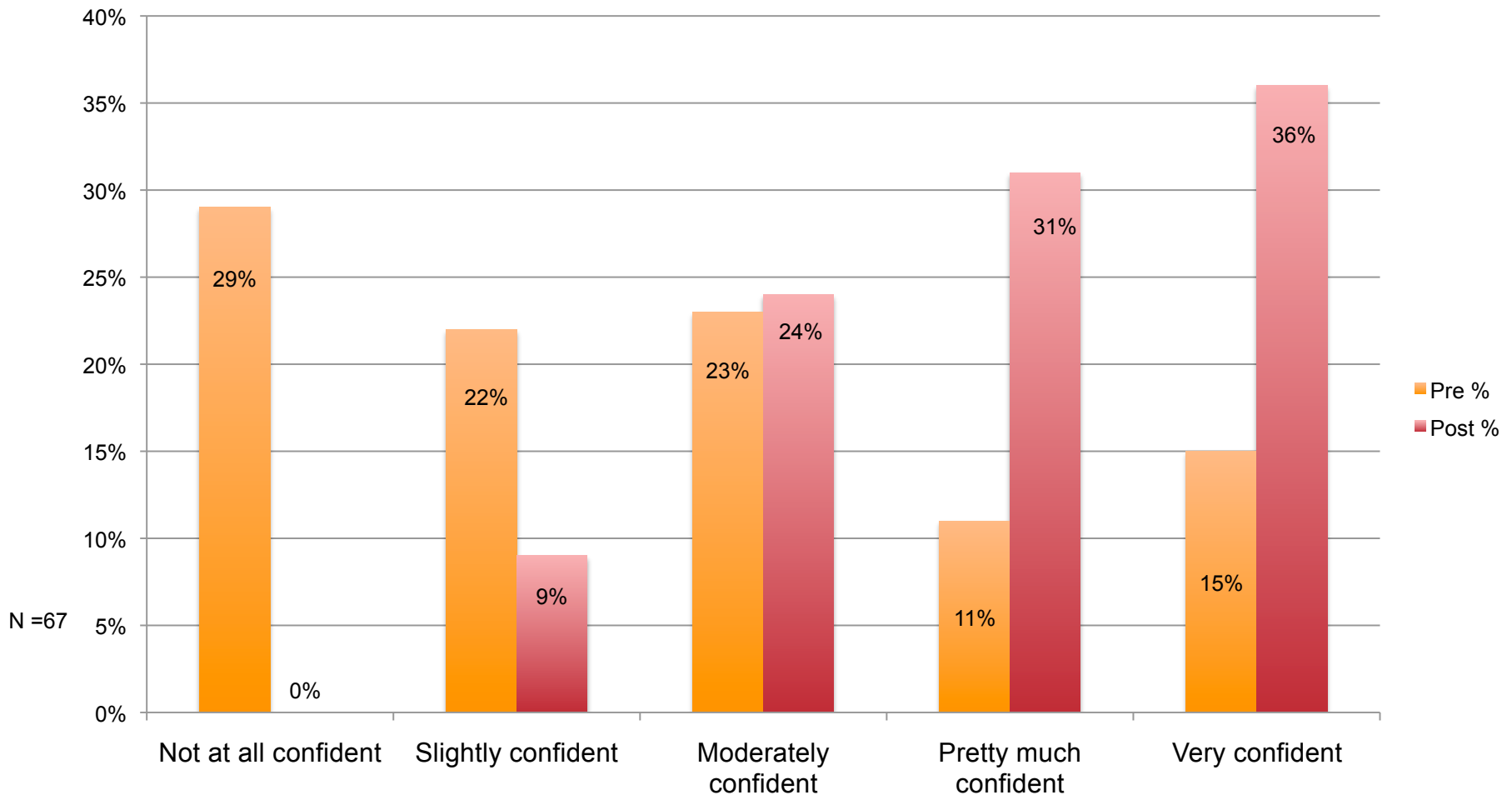
The following patient is most likely to benefit from bronchial thermoplasty:



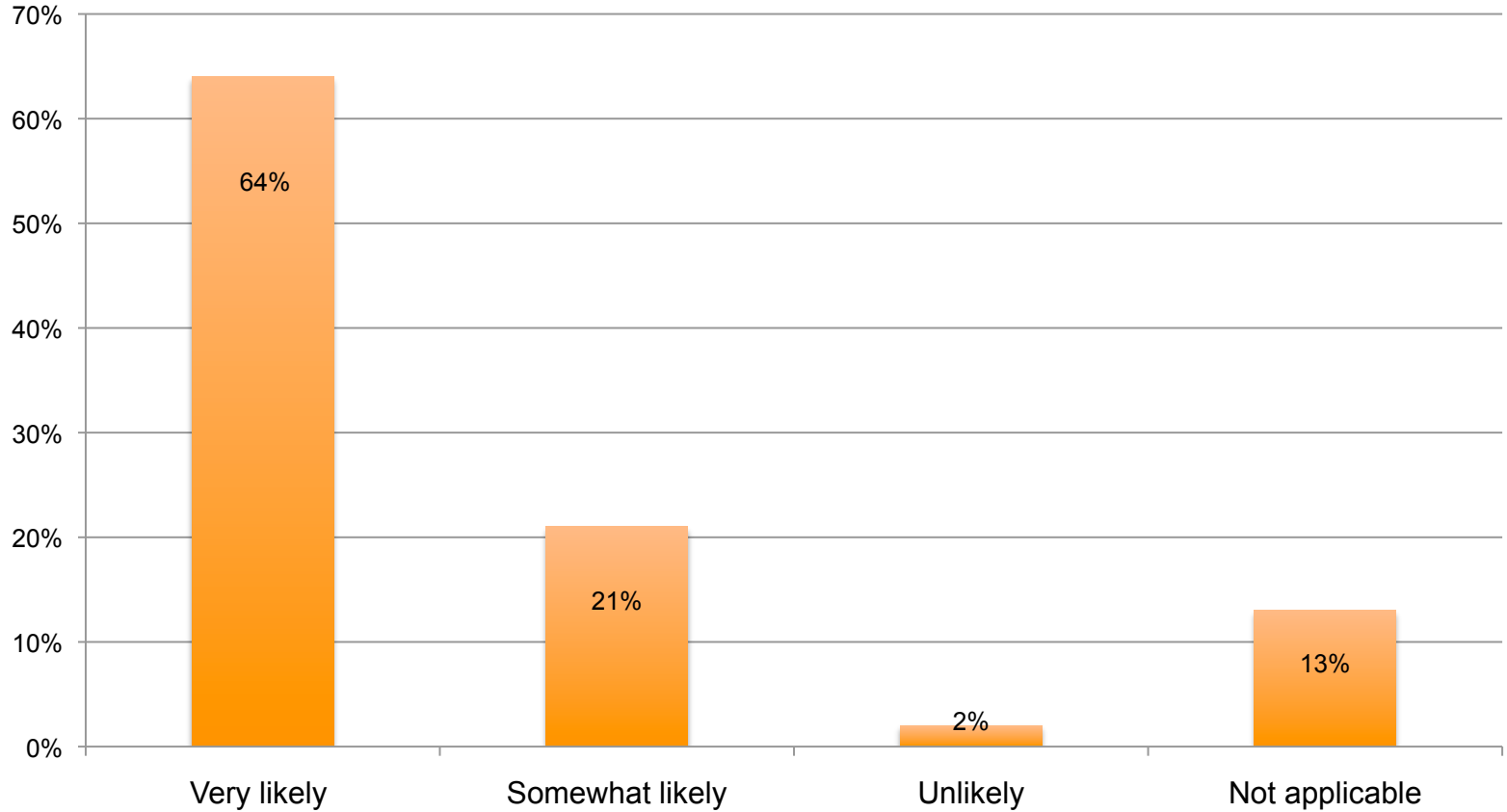
Green highlight indicates significant difference between pre and post testing.

Changes in Confidence from Pre to Post-Testing Electromagnetic Navigation Bronchoscopy and Bronchial Thermoplasty: Two Techniques That Are Revolutionizing Bronchoscopy

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



Intention to Change Practice Behavior and Implement Learning



N = 165

Discussion and Implications

Electromagnetic Navigation Bronchoscopy and Bronchial Thermoplasty: Two Techniques That Are Revolutionizing Bronchoscopy

Electromagnetic navigation is a novel diagnostic technique which allows bronchoscopic sampling of peripheral pulmonary nodules and mediastinal adenopathy. Planners conducted a needs assessment for this topic and gaps in knowledge. The objective of this activity was to educate learners about the methodology and advantages of navigational bronchoscopy, describe bronchial thermoplasty, and define patient selection for these two procedures

Knowledge/Competence: Attendee knowledge was assessed at two points for this activity: prior to the activity and immediately following the activity using the case vignettes and knowledge questions listed above. The results indicated improvement in knowledge as measured by positive changes in pre to post-test scores on all three questions asked about electromagnetic navigation bronchoscopy and bronchial thermoplastic, and 2 out of three in a statistically significant manner.

Confidence: Participants indicated a strong overall increase in self-reported confidence levels in their understanding of these procedures. Attendees who reported that they felt very confident in their understanding rose from 15% to 30% by the end of the activity.

Intention for Change in Practice Behavior: Sixty-four percent of participants reported that they were very likely to utilize information learned from this activity in their practice.

Summary: This activity was successful in the goal of improving understanding of electromagnetic navigation bronchoscopy and bronchial thermoplasty. As a result of this physicians will be able to better select patients for these procedures.