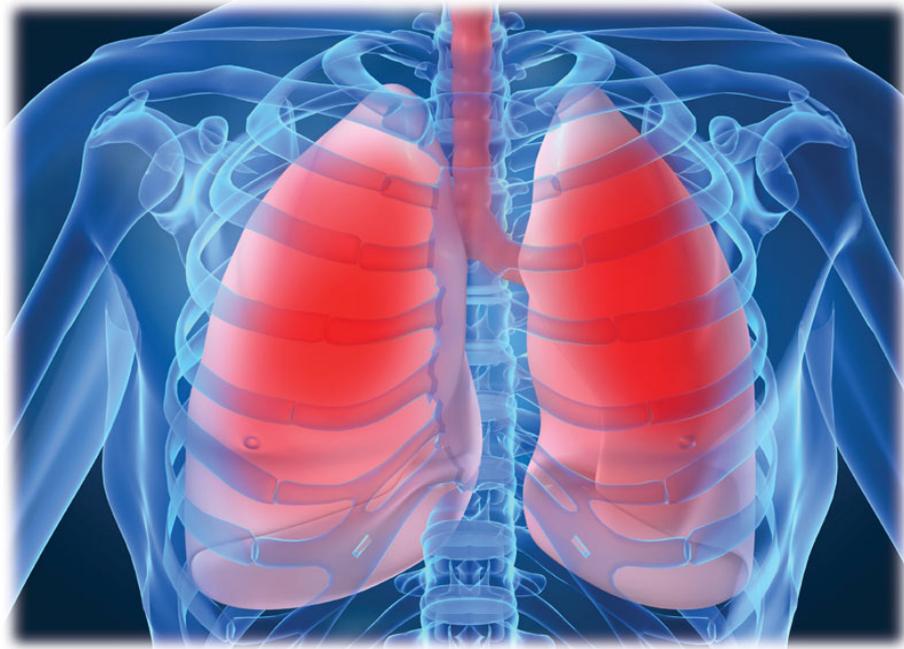




NATIONAL ASSOCIATION FOR CONTINUING EDUCATION



Update in Interventional
Bronchoscopy 2013

Final Outcome Report

Challenges in Pulmonary and Critical Care: 2013

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

Report Date: December 27, 2013

Course Director

Franck Rahaghi, MD, MHS, FCCP

Director, Pulmonary Hypertension Clinic
Director, Pulmonary Education and Rehabilitation
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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.

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

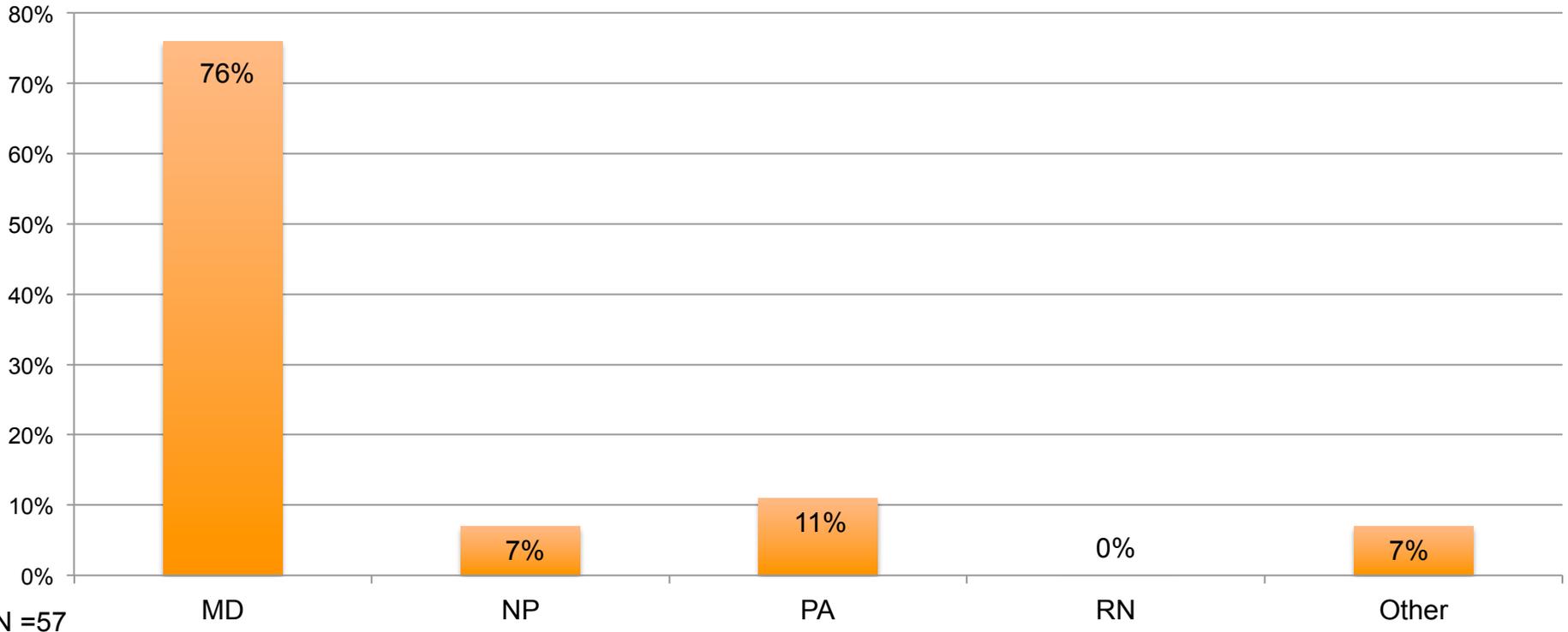
Consistent with the policies of the ACCME, NACE evaluates the effectiveness of all CME activities using a systematic process based on the following model:

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



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

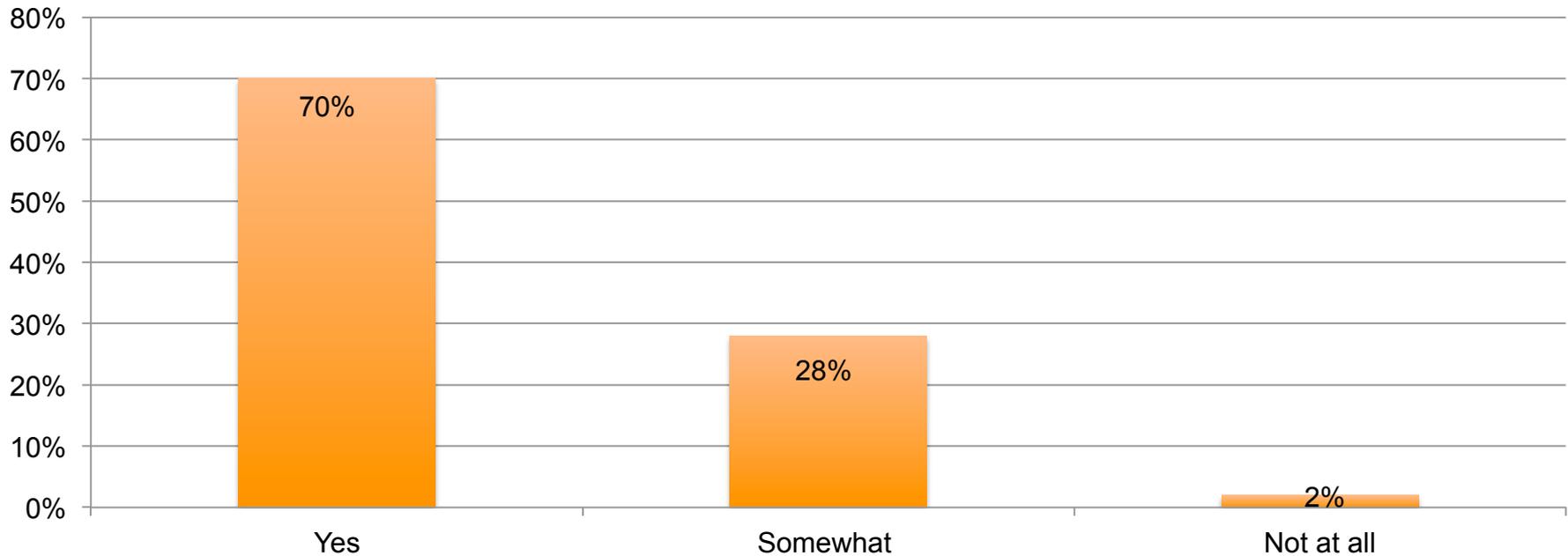
Level 2: Satisfaction

- 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 – Define the tools available to interventional bronchoscopy; Explain patient selection criteria for interventional bronchoscopy; and Discuss the pipeline of new procedures.



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

- **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.

Update in Interventional Bronchoscopy 2013

Faculty

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

Learning Objectives

- Define the tools available to interventional bronchoscopy
- Explain patient selection criteria for interventional bronchoscopy
- Discuss the pipeline of new procedures

Key Findings

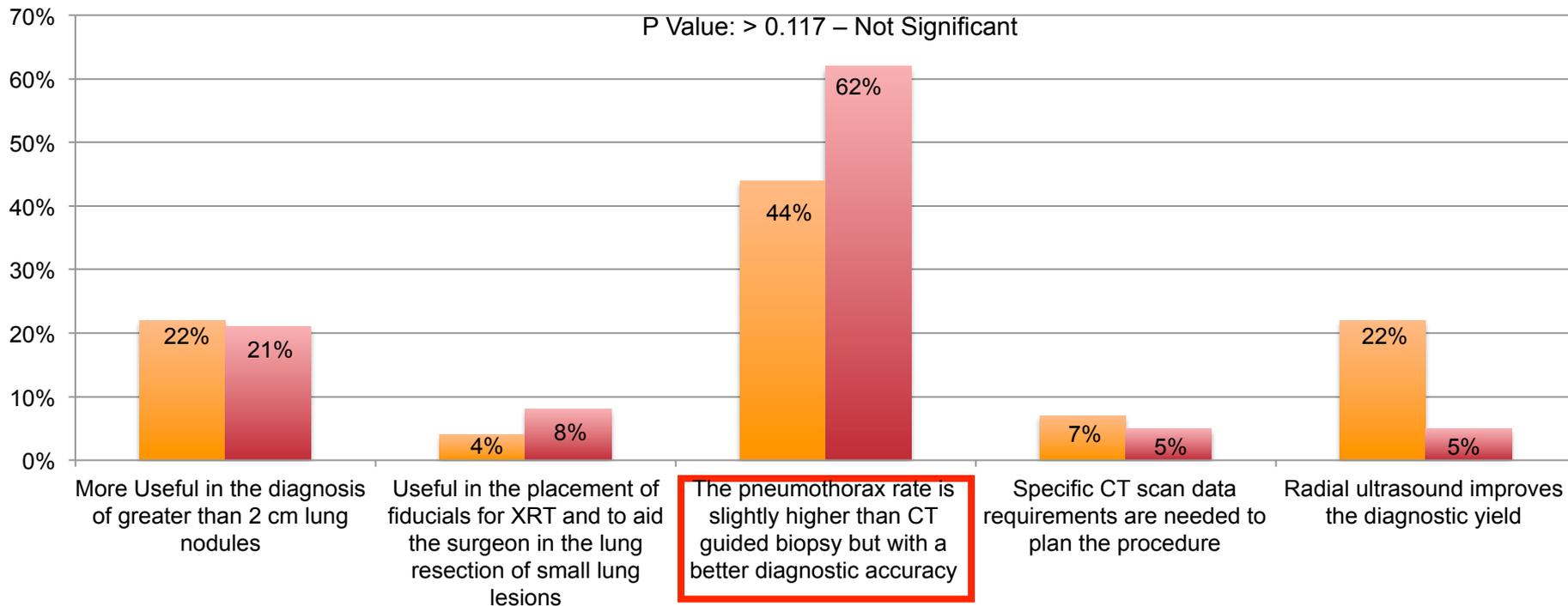
Update in Interventional Bronchoscopy 2013

Knowledge/Competence	Learners demonstrated improvement in their answers from pre to post-testing on one of the three case-based questions regarding Interventional Bronchoscopy.
Confidence	Whereas the majority of learners rated themselves as having very low confidence in their understanding of Interventional Bronchoscopy before the education most of the learners showed high gains in confidence after the program.
Intent to Perform	As a result of this program, 20% of learners who did not manage patients with lung lesions or asthma and did not consider interventional bronchoscopy as option before are considering it now, while 23% indicated that they will change their approach.
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.)

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



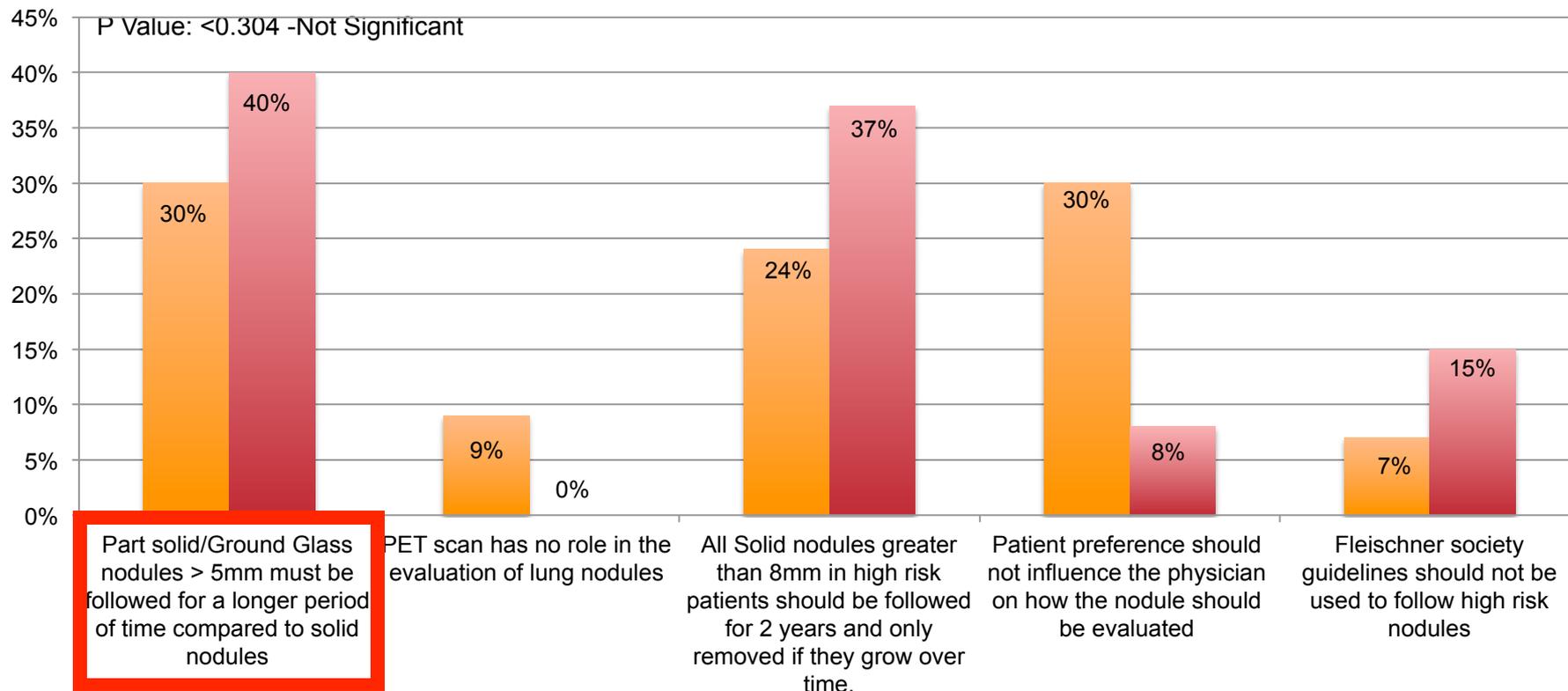
N =45

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.)

Based on the current ACCP recommendations, the following is true regarding the evaluation of lung nodules:



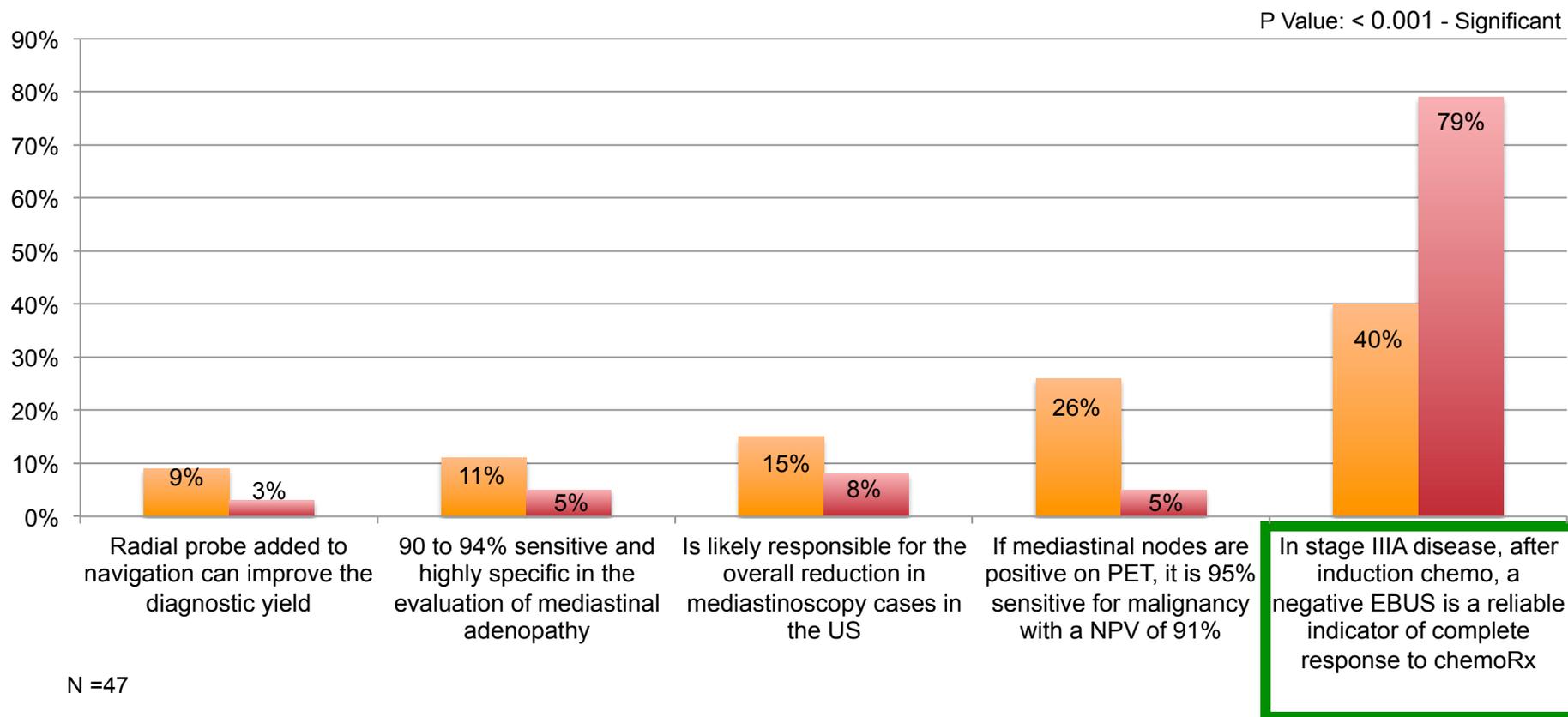
N =52

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.)

The following is true regarding Endobronchial Ultrasonography (EBUS) Except

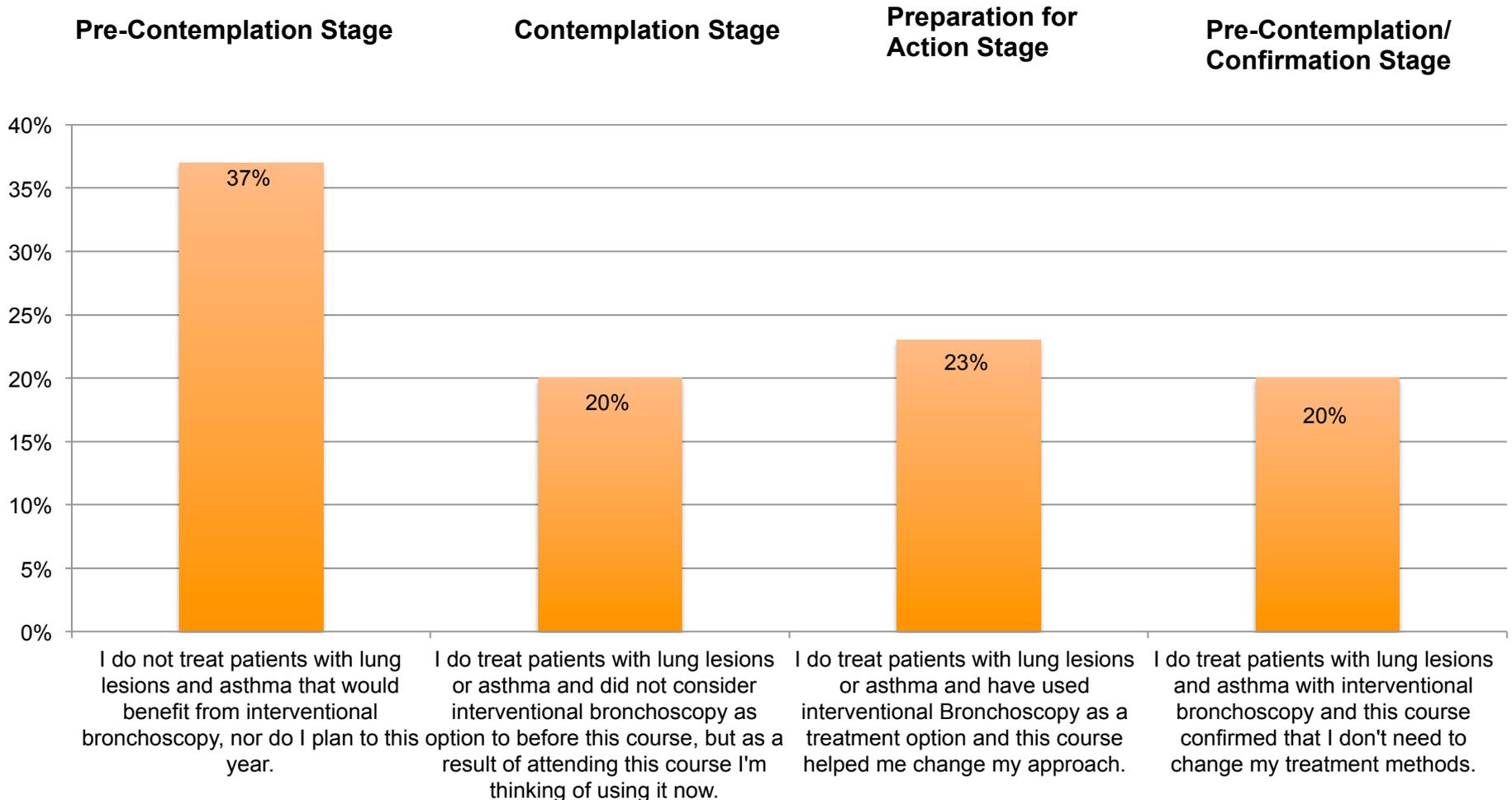


Green highlight indicates significant difference between pre and post testing.

Change in Practice Behavior Question

Presented after lecture.

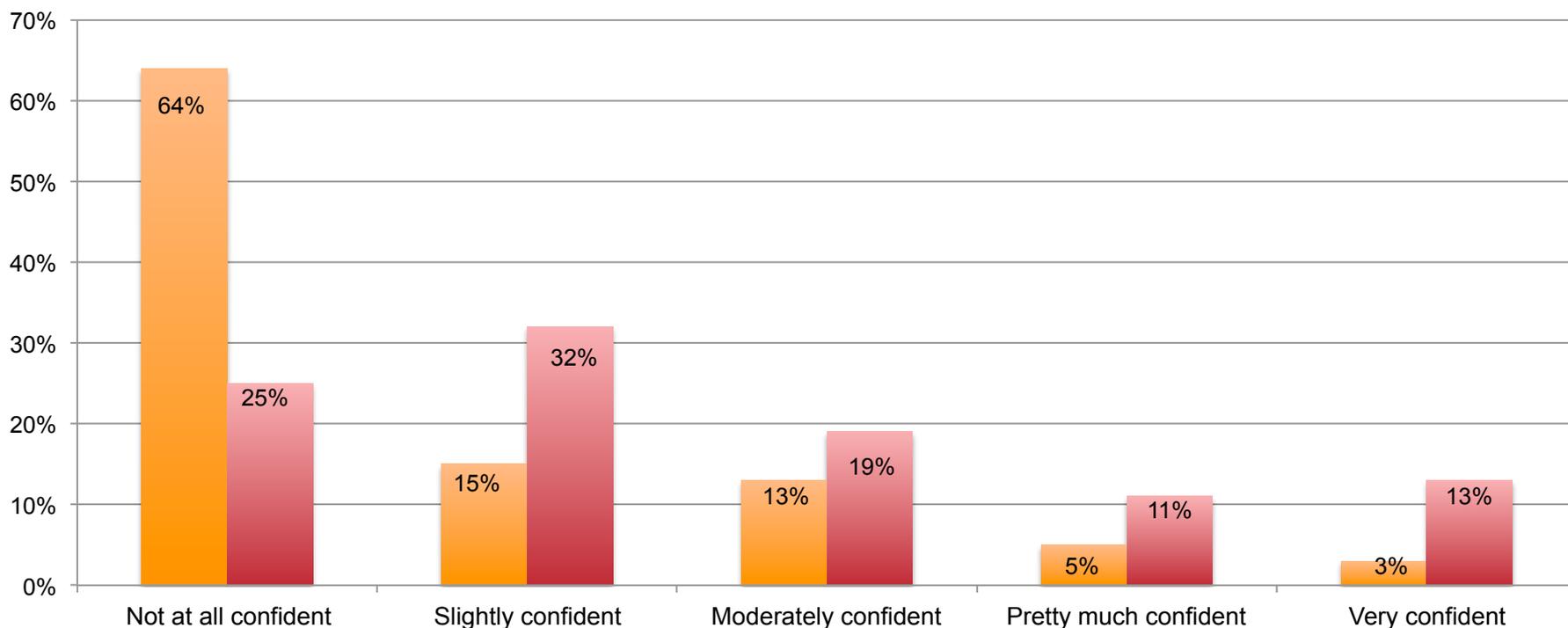
Which of the statements below describes your understanding of the role interventional bronchoscopy in the diagnosis and management of lung diseases?



N = 35

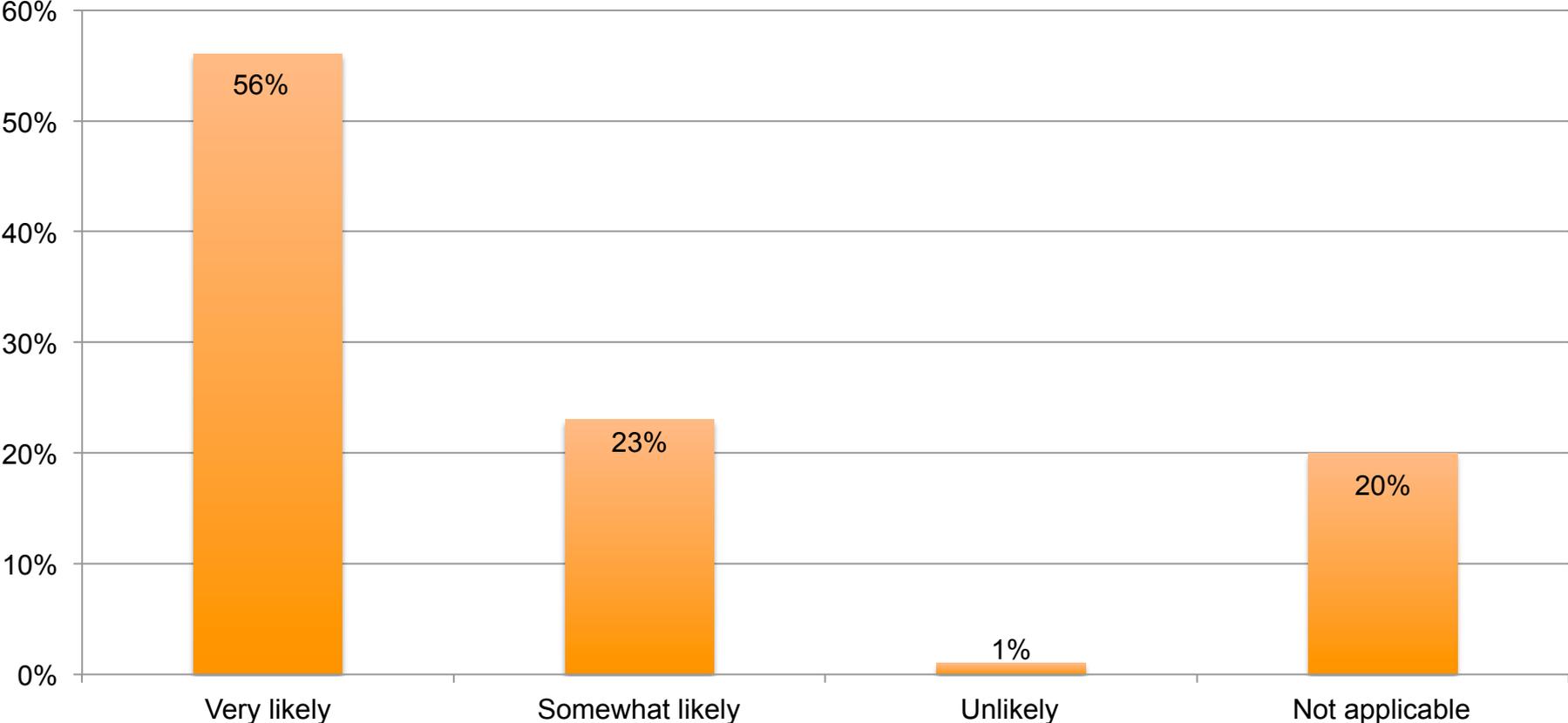
Changes in Confidence from Pre to Post-Testing Update in Interventional Bronchoscopy 2013

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



N =61

Intention to Change Practice Behavior and Implement Learning



N =119

Discussion and Implications

Update in Interventional Bronchoscopy 2013

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 two question out of three, one in a statistically significant manner.

Practice Behavior: Forty-six percent of the attendees either claimed to change their practice or start getting involved in correctly referring patients

Confidence: Participants indicated a strong overall increase in self-reported confidence levels in their understanding of these procedures. There was a consistent improvement in increasing confidence, more that doubling in the confident to very confident categories.

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

Summary: Seventy nine percent of attendees suggested they were likely or very likely to change their practice patterns as a result of this event. his 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.