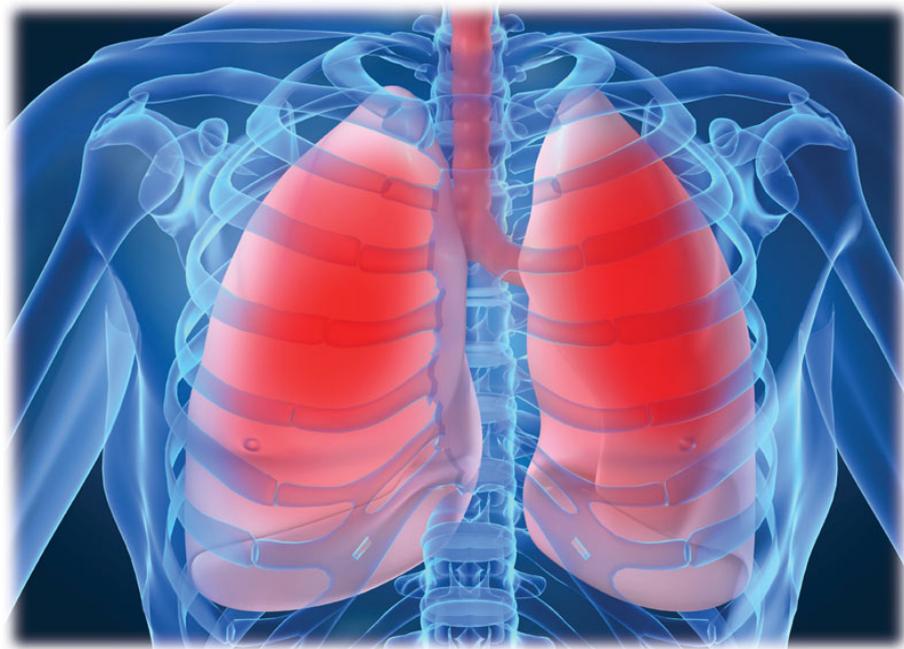




# **NATIONAL ASSOCIATION FOR CONTINUING EDUCATION**



Update in Interventional  
Bronchoscopy 2014

**Final Outcome Report**

## **Challenges in Pulmonary and Critical Care: 2014**

**Presented at:  
Cleveland Clinic Florida  
Weston, Florida  
December 6, 2014**

Report Date: January 14, 2015

# 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 1.25 pharmacology hours).

# Commercial Support

Challenges in Pulmonary and Critical Care: 2014 CME activity was supported through educational grants from the following companies:

Actelion

Boehringer Ingelheim Pharmaceuticals, Inc.

CSL Behring

Grifols

Intermune

VITAS Innovative Hospice Care

United Therapeutics

# Agenda

7:00-8:00	Continental Breakfast and Registration	12:25- 1:10	Lunch Break/Exhibits
8:00-8:10	Welcome Remarks Franck Rahaghi, MD, MHS, FCCP	1:10-2:10	Transition to End of Life Care: The How and Why Nydia Martinez Galvis, MD
8:10-9:10	Pulmonary Hypertension: New Horizons and New Perspectives Robert Schilz, DO, PhD	2:10-3:10	Idiopathic Pulmonary Fibrosis: A New Hope Franck Rahaghi, MD, MHS, FCCP
9:10-10:10	Sleep Apnea: Changes in Practice, Hope for better outcomes Laurence Smolley, MD	3:10-3:25	Break/Exhibits
10:10- 10.25	Break/Exhibits	3:25-4:25	Update in Interventional Bronchoscopy 2014 Eduardo Oliveira, MD, MBA, FCCP
10:25-11:25	COPD: New Developments, New Treatment Horizons Anas Hadeh, MD, FCCP	4:25-4:30	Concluding Remarks Franck Rahaghi, MD, MHS, FCCP
11:25-12:25	Alpha-1 Antitrypsin Deficiency: Evidence for Efficacy Robert A. Sandhaus, MD, PhD		

# Levels of Evaluation

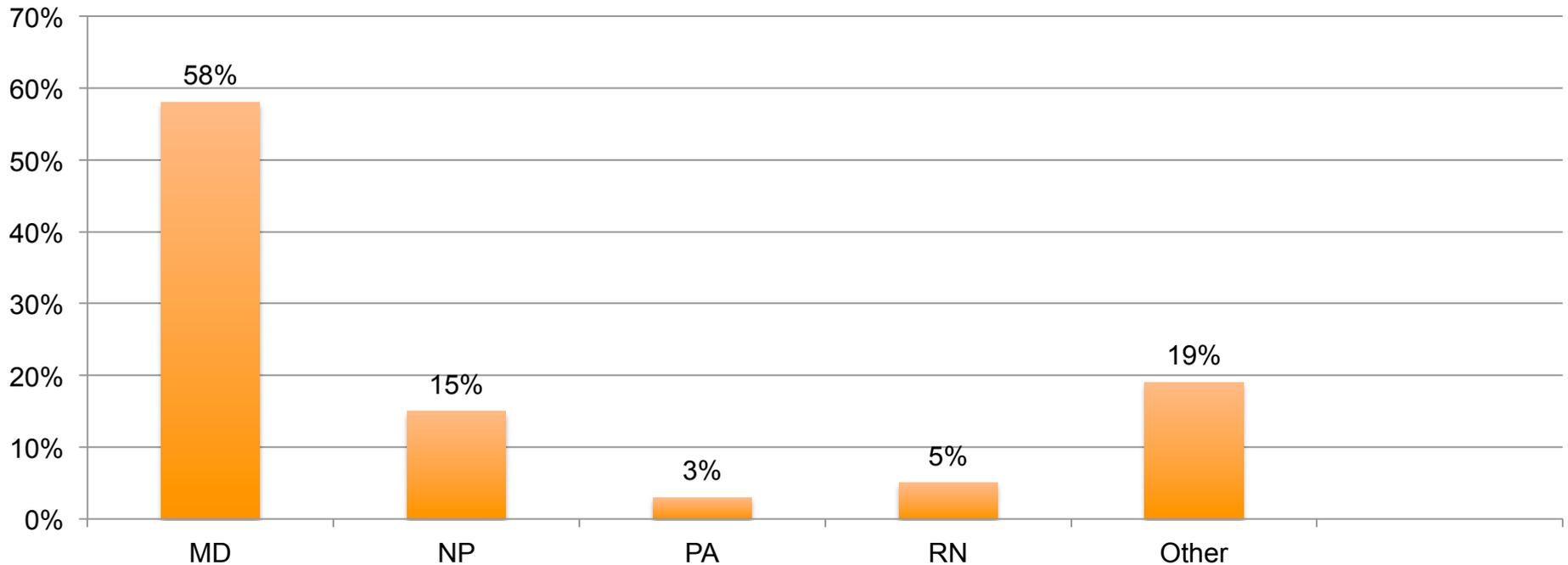
Consistent with the policies of the ACCME, NACE evaluates the effectiveness of all CME activities using a systematic process based on the following model:

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

- 101 attendees
- 58% Physicians; 15% NPs; 3% PAs; 5% RNs; 19% Other
- Over 62% in community-based practice
- 42% PCPs, 35% Pulmonology; 2% Rheumatology; 3% Cardiology; 18% Other or did not respond



N =88

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

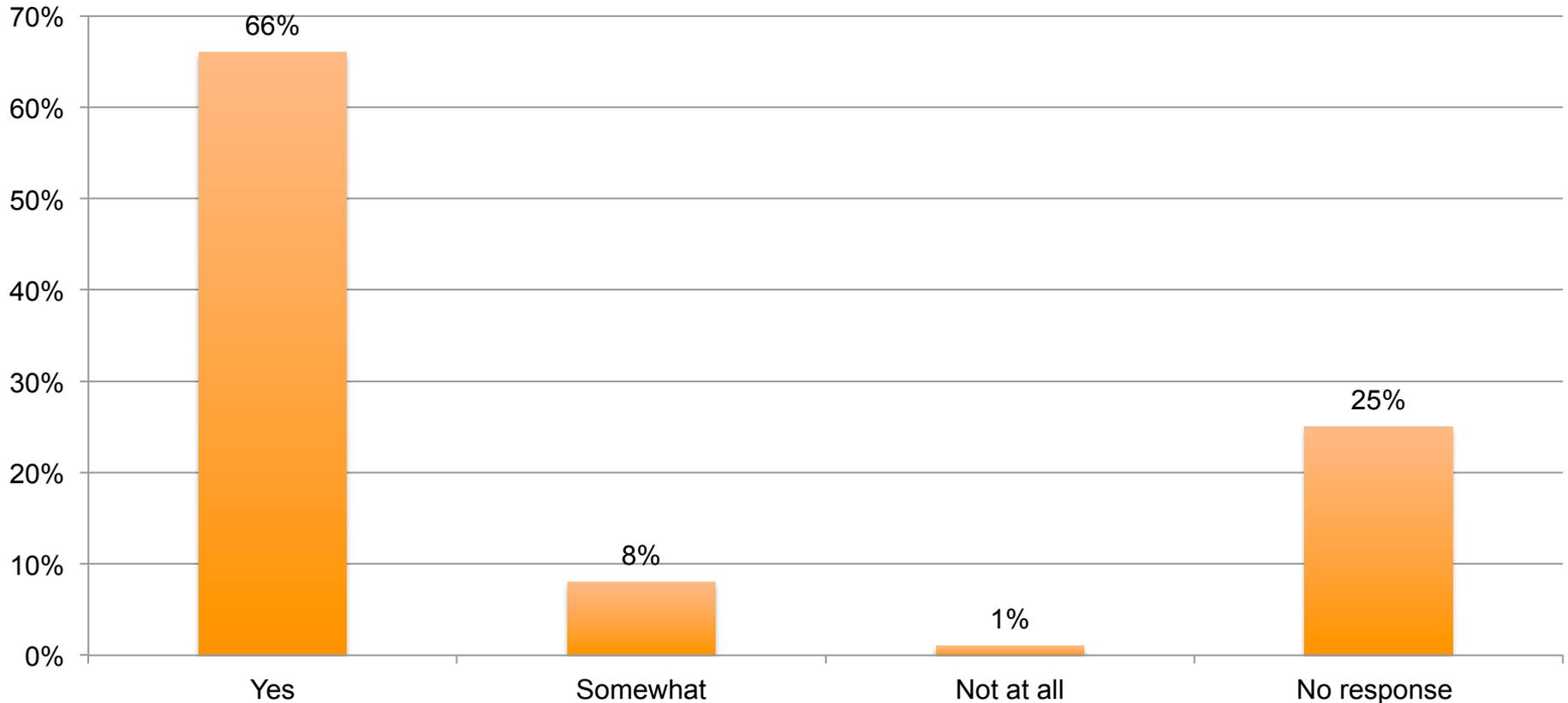
## Level 2: Satisfaction

- 100% rated the activity as very good to excellent
- 100% indicated the activity improved their knowledge
- 100% stated that they learned new strategies for patient care
- 82% 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 tools available to interventional bronchoscopy; Describe patient selection in this area; Discuss upcoming interventions and trials



Did learners indicate they achieved the learning objectives?

**Yes! 74% 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. <sup>1</sup>

- **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 2014

## Faculty

Eduardo Oliveira, MD, MBA, FCCP  
Director, Interventional Pulmonology Program  
Cleveland Clinic Florida  
Weston, FL

## Learning Objectives

- Discuss the tools available to interventional bronchoscopy
- Describe patient selection in this area
- Discuss upcoming interventions and trials

# Key Findings

## Update in Interventional Bronchoscopy 2014

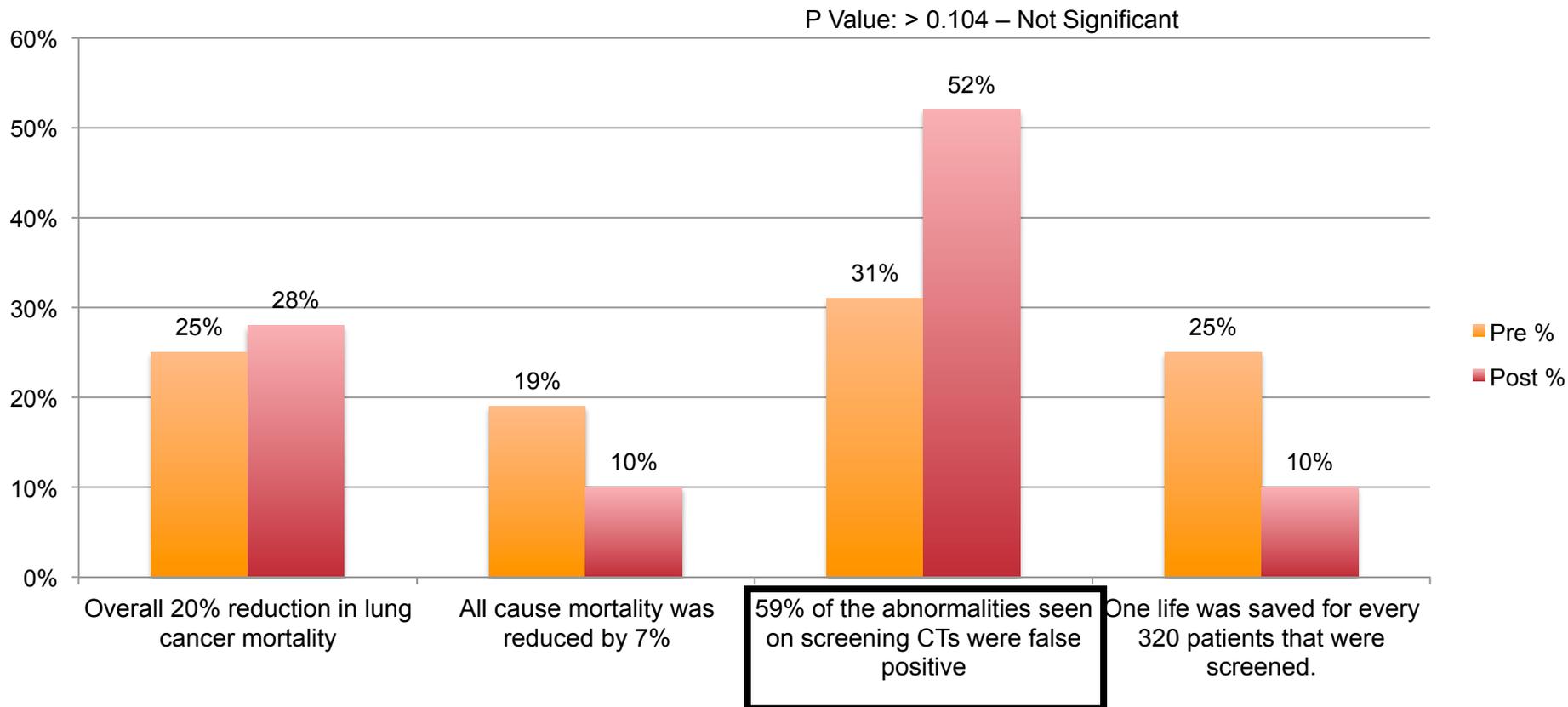
Knowledge/Competence	Learners did not demonstrate improvement in their answers from pre to post-testing on none of the three case-based questions regarding Interventional Bronchoscopy.
Confidence	Whereas the majority of learners rated themselves as having very low confidence in their understanding of 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, 14% 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 38% indicated that they will change their approach.
Change of Practice Behavior	97% 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=27

# Case Vignette Knowledge and Competence Assessment Questions

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

Of the options below, which one is incorrect, regarding the main findings of the NLST trial (Low dose CT lung cancer screening trial)



Pre N = 32  
Post N = 29

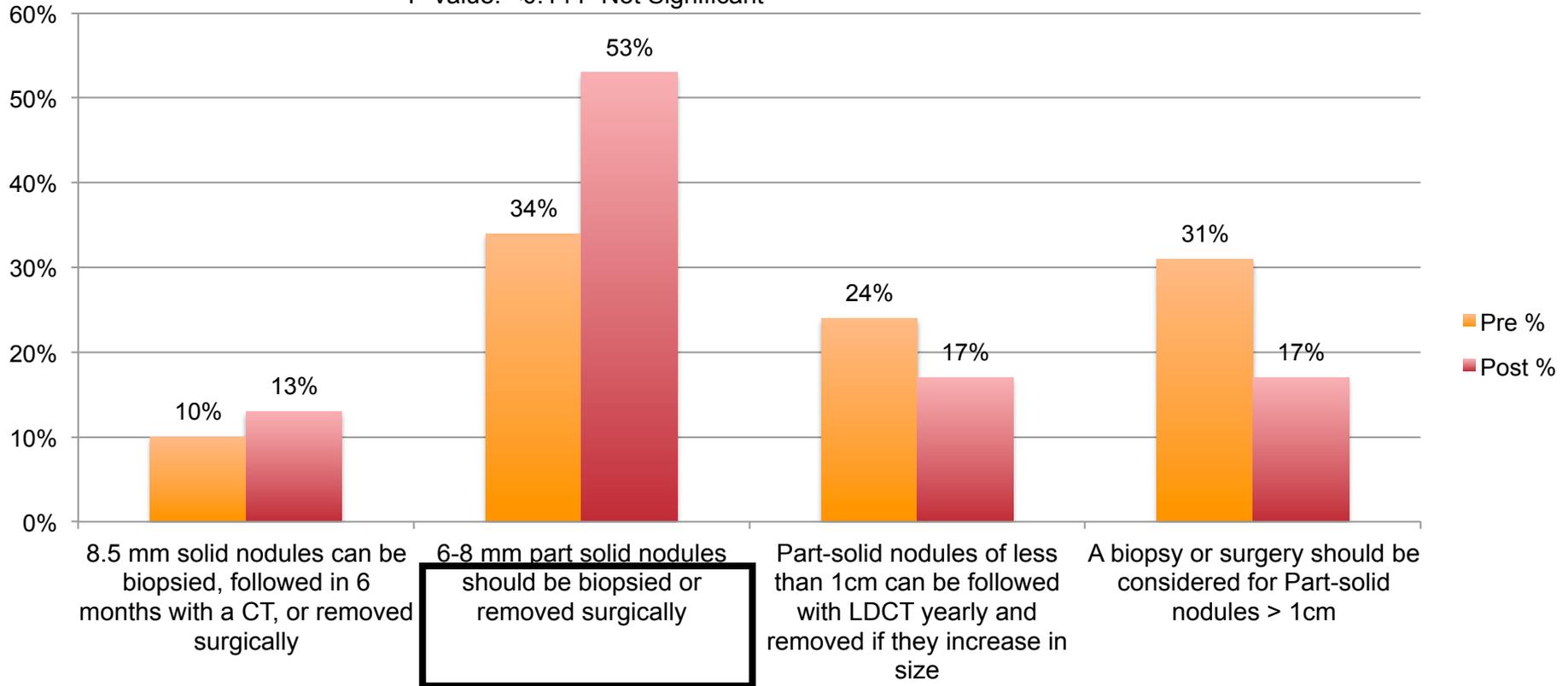
Red highlight indicates no significant difference between pre and post testing.

# Case Vignette Knowledge and Competence Assessment Questions

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

The following management recommendations are not consistent with current NCCN guidelines regarding lung nodules found on screening CT (LDCT) scans of high risk

P Value: <0.144 -Not Significant



Pre N = 29  
Post N = 30

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

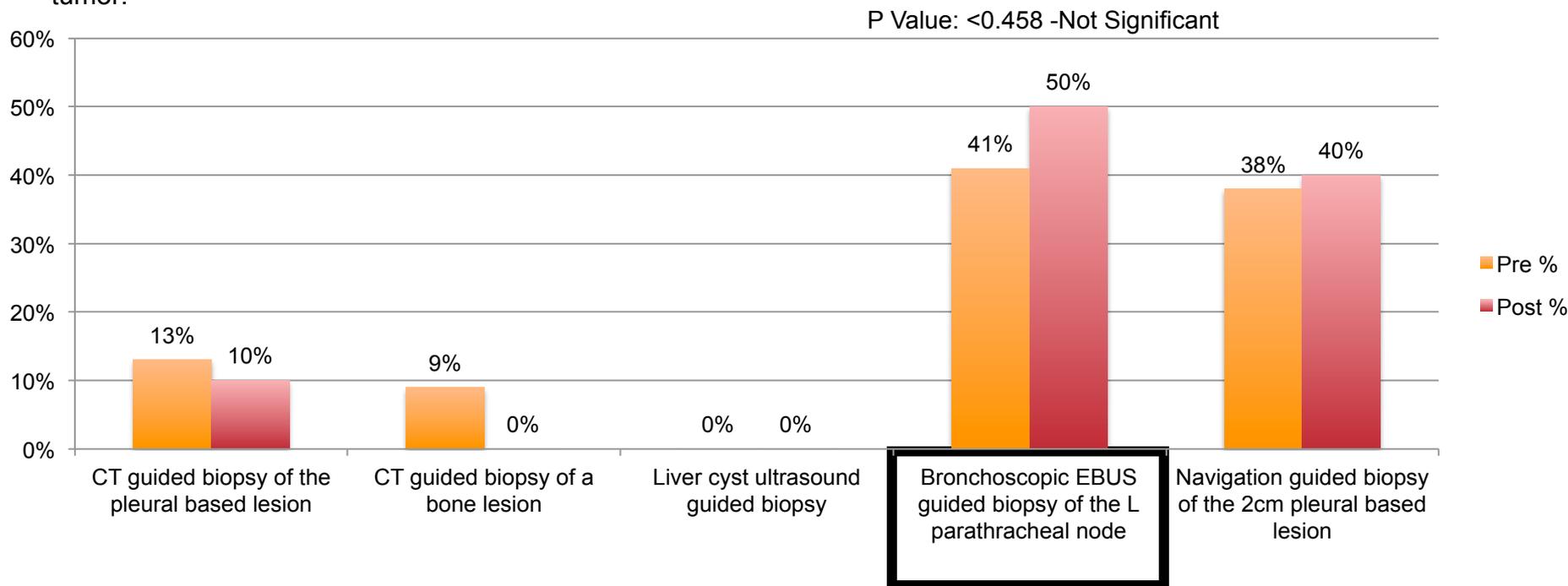
# Case Vignette Knowledge and Competence Assessment Questions

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

A 58 y.o. female with emphysema and a 2 cm pleural based lung mass presents for evaluation. Her CT chest and PET scans are reviewed and reveals the following:

- 2 cm pleural based lesion on the R suspicious for cancer
- Bone lesions very suspicious for malignancy in the pelvis, hip and humerus.
- A large liver cyst
- 1.5 cm FDG-avid L paratracheal adenopathy
- A brain lesion also very suspicious for malignancy

Biopsy of which site is most likely to provide the best combination of most accurate staging and molecular analysis of the tumor:



Pre N = 32  
Post N = 30

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

# Change in Practice Behavior Question

Presented after lecture.

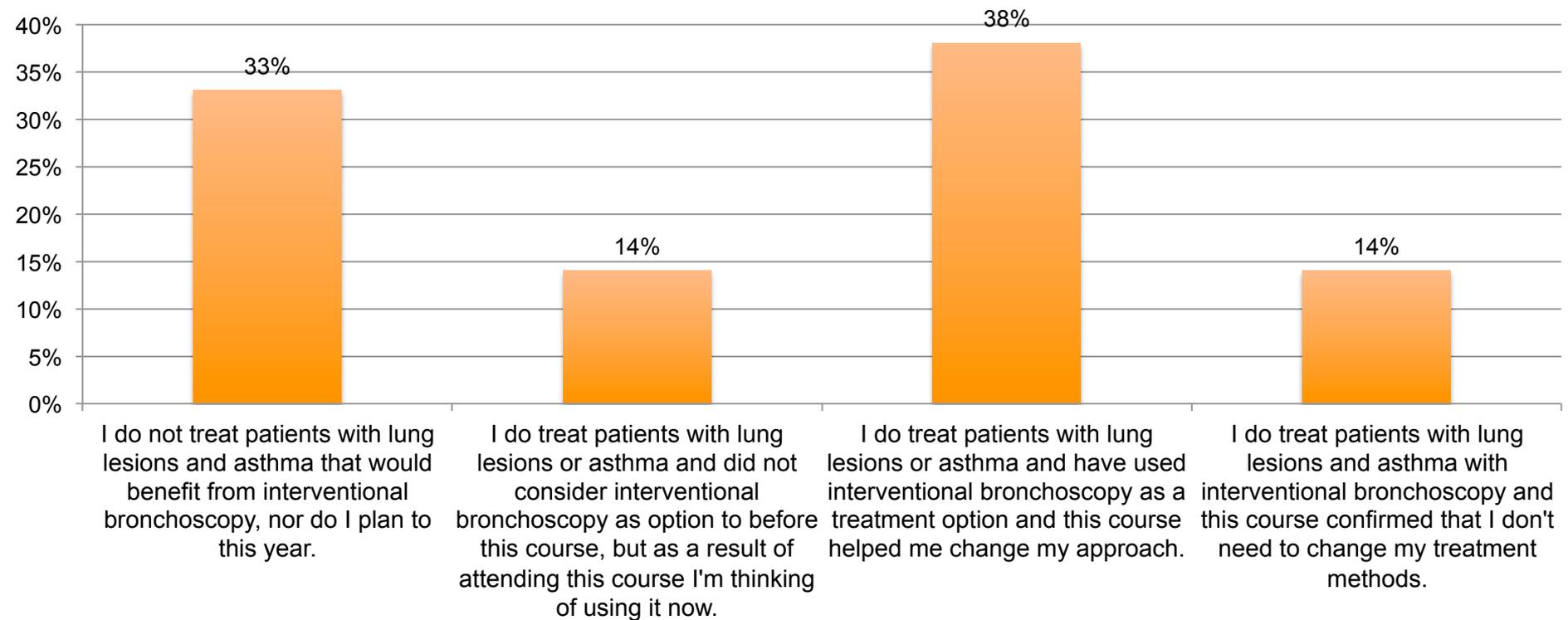
Which of the statements below describes your understanding of the role interventional bronchoscopy in the diagnosis and management of lung diseases?

**Pre-Contemplation Stage**

**Contemplation Stage**

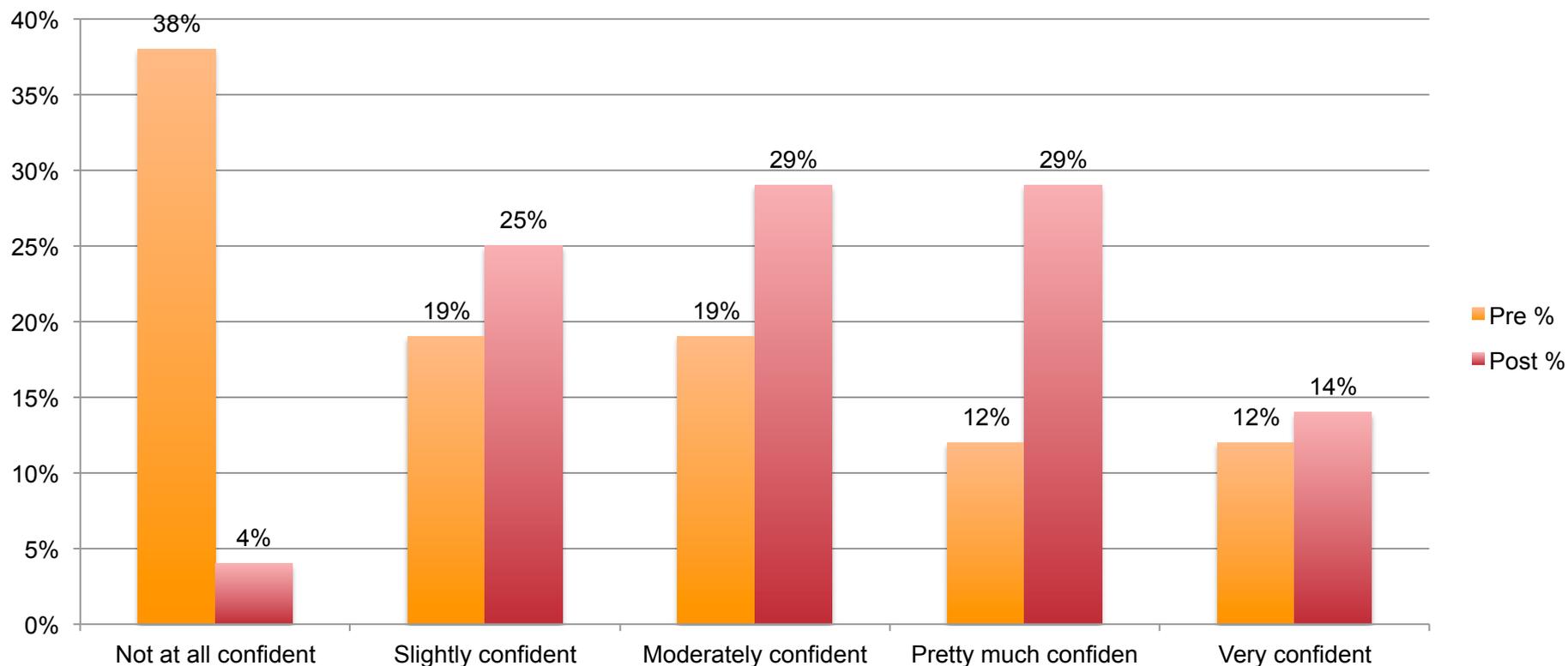
**Preparation for  
Action Stage**

**Pre-Contemplation/  
Confirmation Stage**



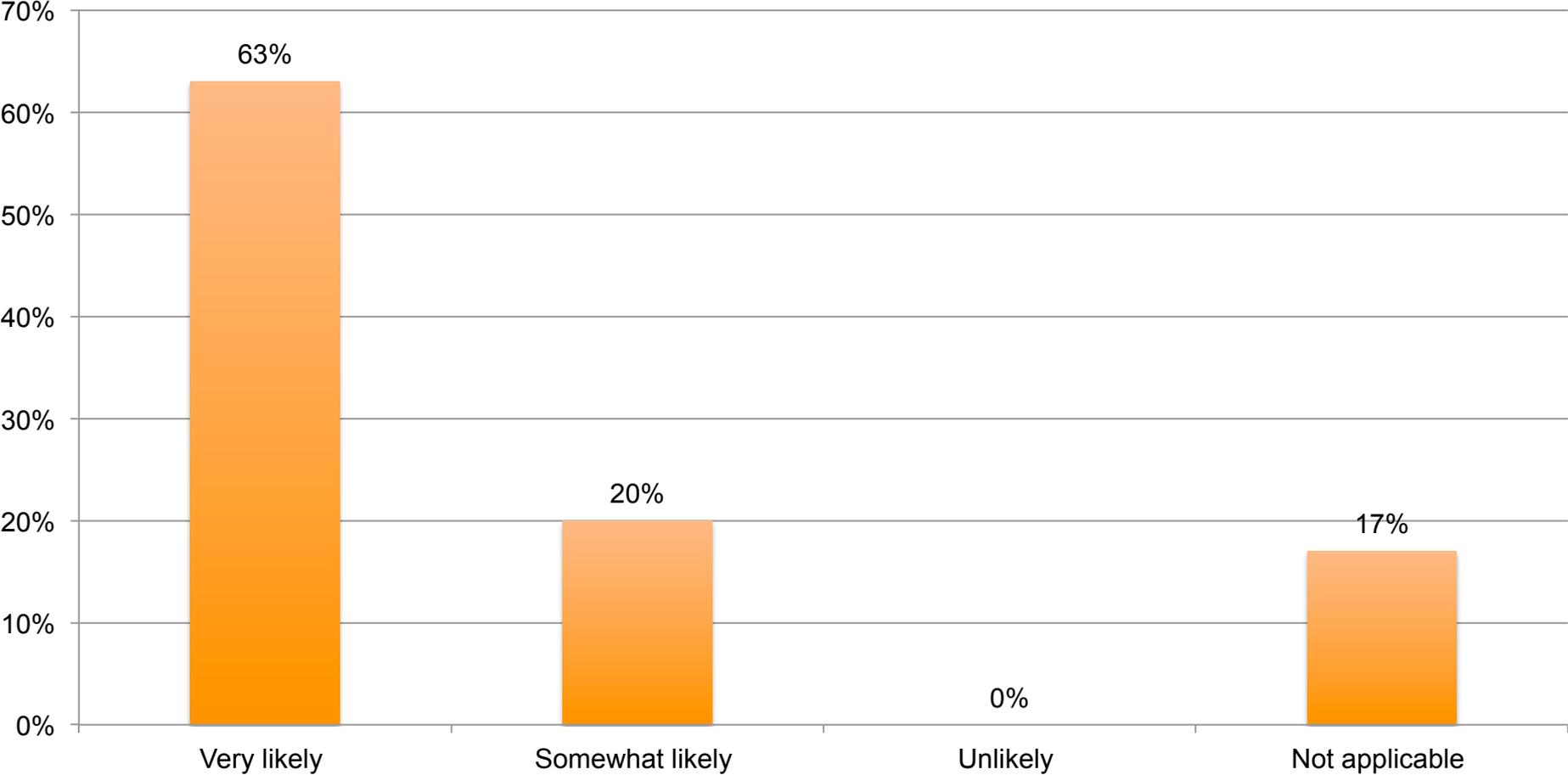
# Changes in Confidence from Pre to Post-Testing Update in Interventional Bronchoscopy 2014

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



Pre N = 26  
Post N = 28

# Intention to Change Practice Behavior and Implement Learning



N =89

# Discussion and Implications

## Update in Interventional Bronchoscopy 2014

- A number of interventional bronchoscopic procedures have been developed for both diagnostic and therapeutic purposes, and the exponential growth of this field, with its inherently interdisciplinary scope, emphasizes the need for education in this area

-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 four questions asked.

Confidence: Participants indicated a strong overall increase in self-reported confidence levels in their understanding of these procedures. Attendees who reported that they felt confident to very confident in their understanding rose from 24% to 43% by the end of the activity. Those who were not confident decreased from 38% to 4%.

Intention for Change in Practice Behavior: Sixty-three percent of participants reported that they were very likely to utilize information learned from this activity in their practice and 83 percent are likely to very likely to implement change as a result of attending this meeting.

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