



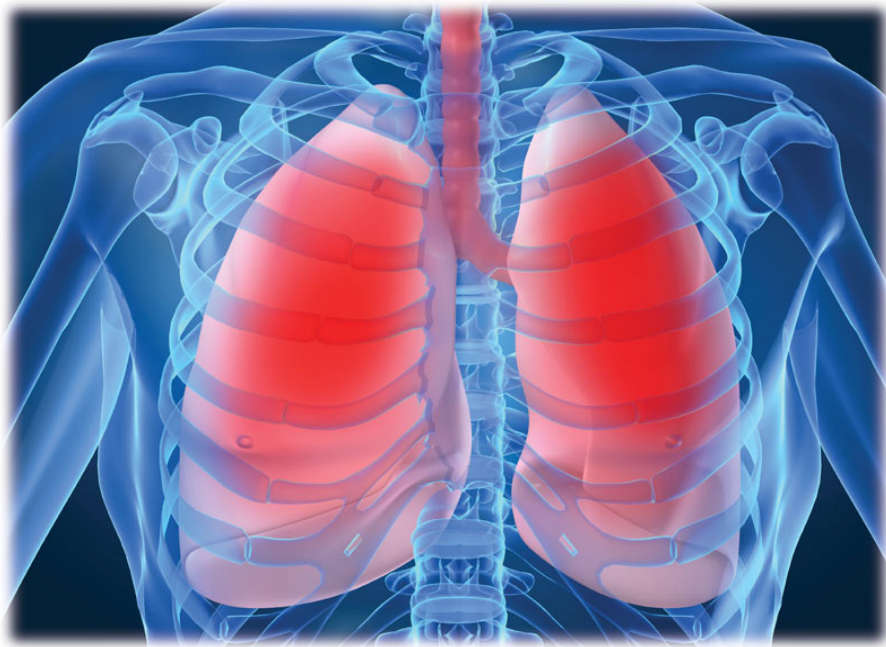
# **NATIONAL ASSOCIATION FOR CONTINUING EDUCATION**

Alpha-1 Antitrypsin  
Deficiency: Future of  
Diagnosis and Treatment

**Outcome Report**

## **Challenges in Pulmonary and Critical Care: 2011**

Report Date: 12/31/11



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

## **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*<sup>™</sup>.

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

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

# Levels of Evaluation

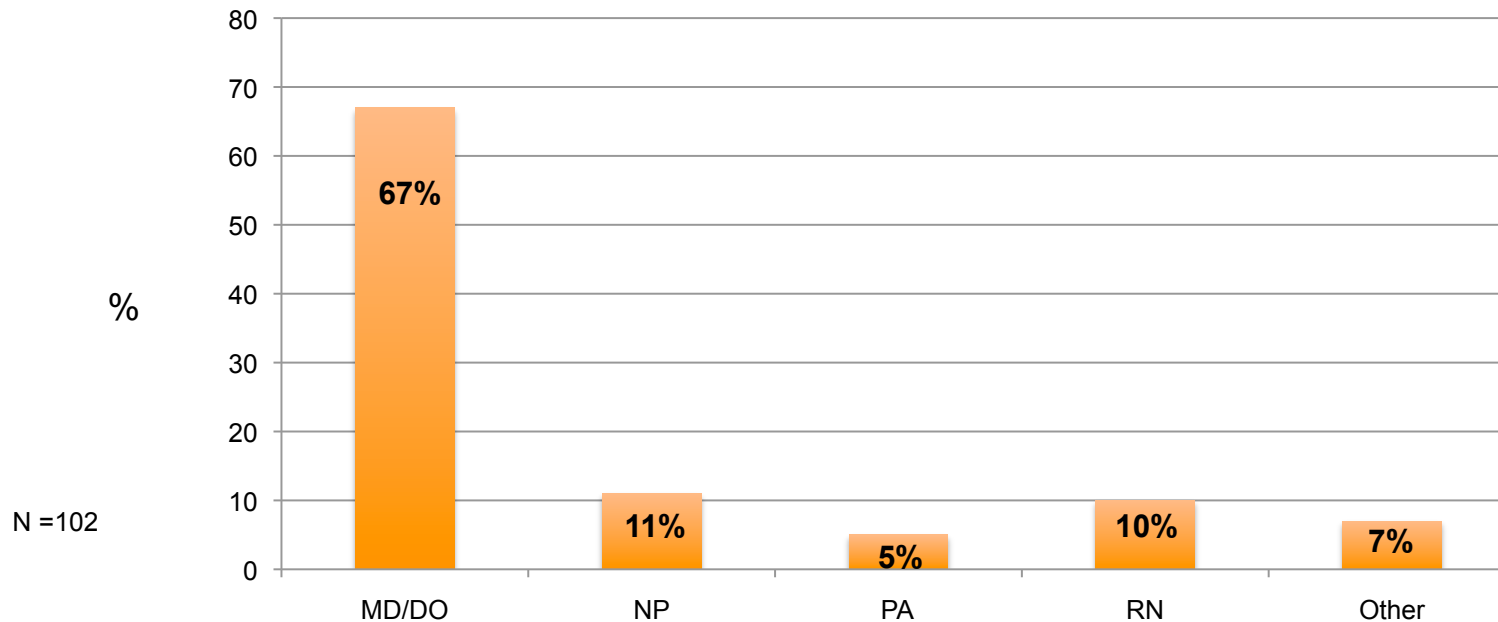
Consistent with the policies of the ACCME, NACE evaluates the effectiveness of all CME activities using a systematic process based on the following model:

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

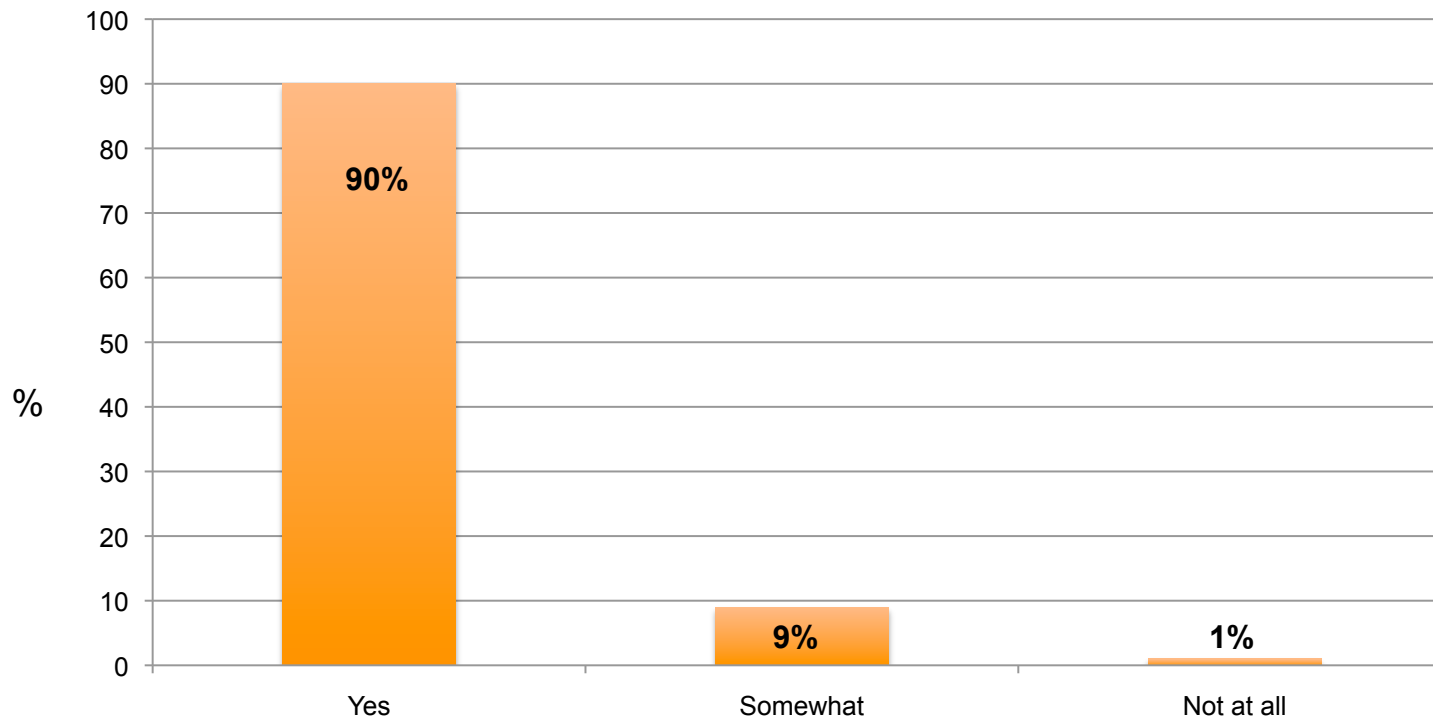
- 97% rated the activity as very good to excellent
- 99% indicated the activity improved their knowledge
- 95% stated that they learned new strategies for patient care
- 89% said they would implement new strategies that they learned in their practice
- 99% said the program was fair-balanced and unbiased

Were our learners satisfied? **Yes!**

# Level 2: Satisfaction

**Upon completion of this activity, I can now –**

Explain the prevalence of alpha-1 antitrypsin deficiency(AATD); Discuss AATD testing by ancillary staff and the pulmonary function lab; Explore novel approaches to increase AATD testing.



Did learners indicate they achieved the learning objectives?

**Yes! 99% 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.

# **Alpha-1 Antitrypsin Deficiency: Future of Diagnosis and Treatment**

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

Faculty

Franck Rahaghi, MD, MHS, FCCP

Director, Pulmonary Hypertension Clinic

Director, Pulmonary Education and Rehabilitation

Cleveland Clinic Florida

Weston, FL

### **Learning Objectives**

- Explain the prevalence of alpha-1 antitrypsin deficiency (AATD)
- Discuss AATD testing by ancillary staff and the pulmonary function lab
- Explore novel approaches to increase AATD testing

# Key Findings

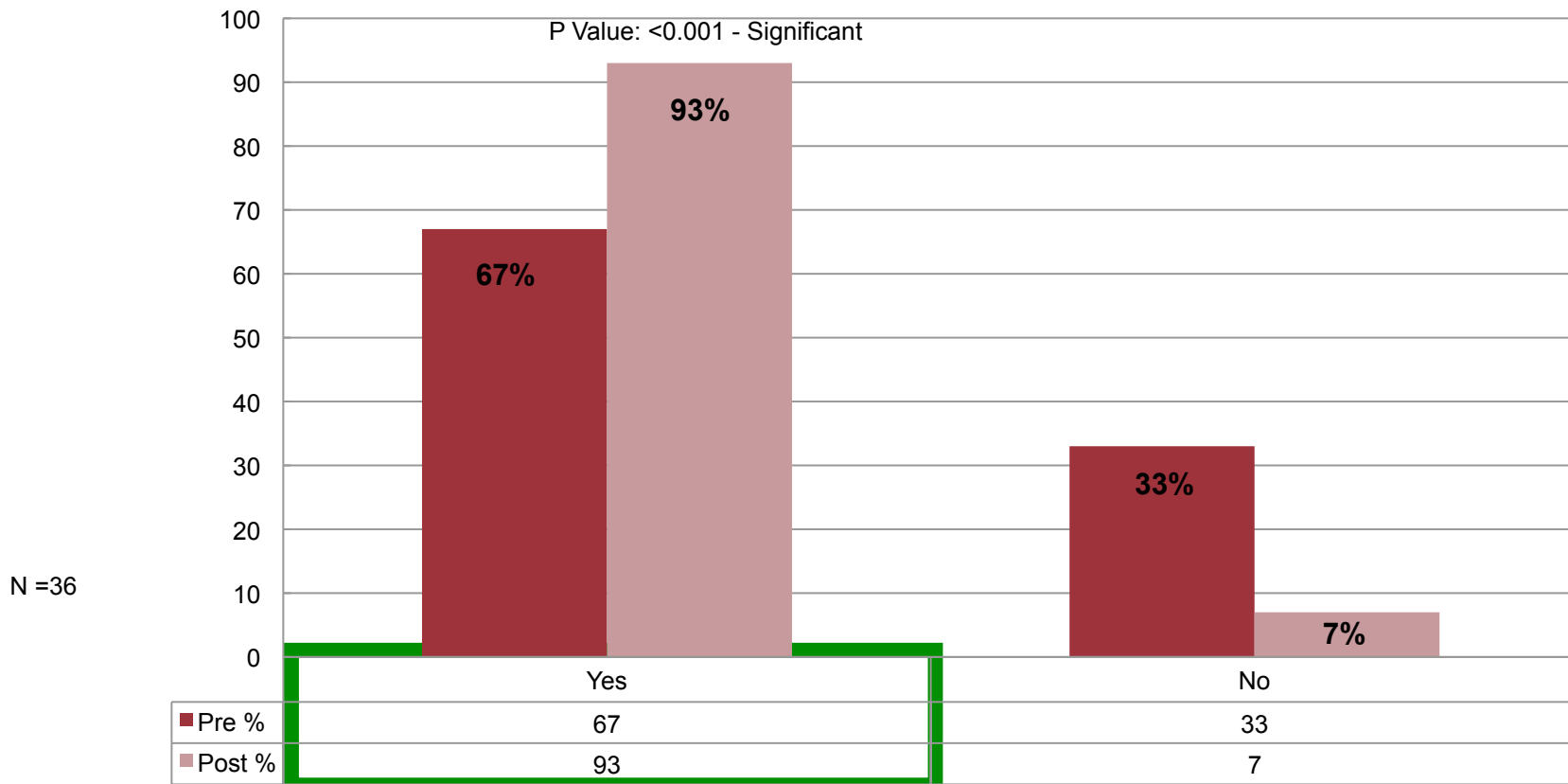
## Alpha-1 Antitrypsin Deficiency: Future of Diagnosis and Treatment

Knowledge/Competence	Learners demonstrated significant improvement in their answers from pre to post-testing on two of the three case-based questions regarding Alpha-1 Antitrypsin Deficiency.
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.)

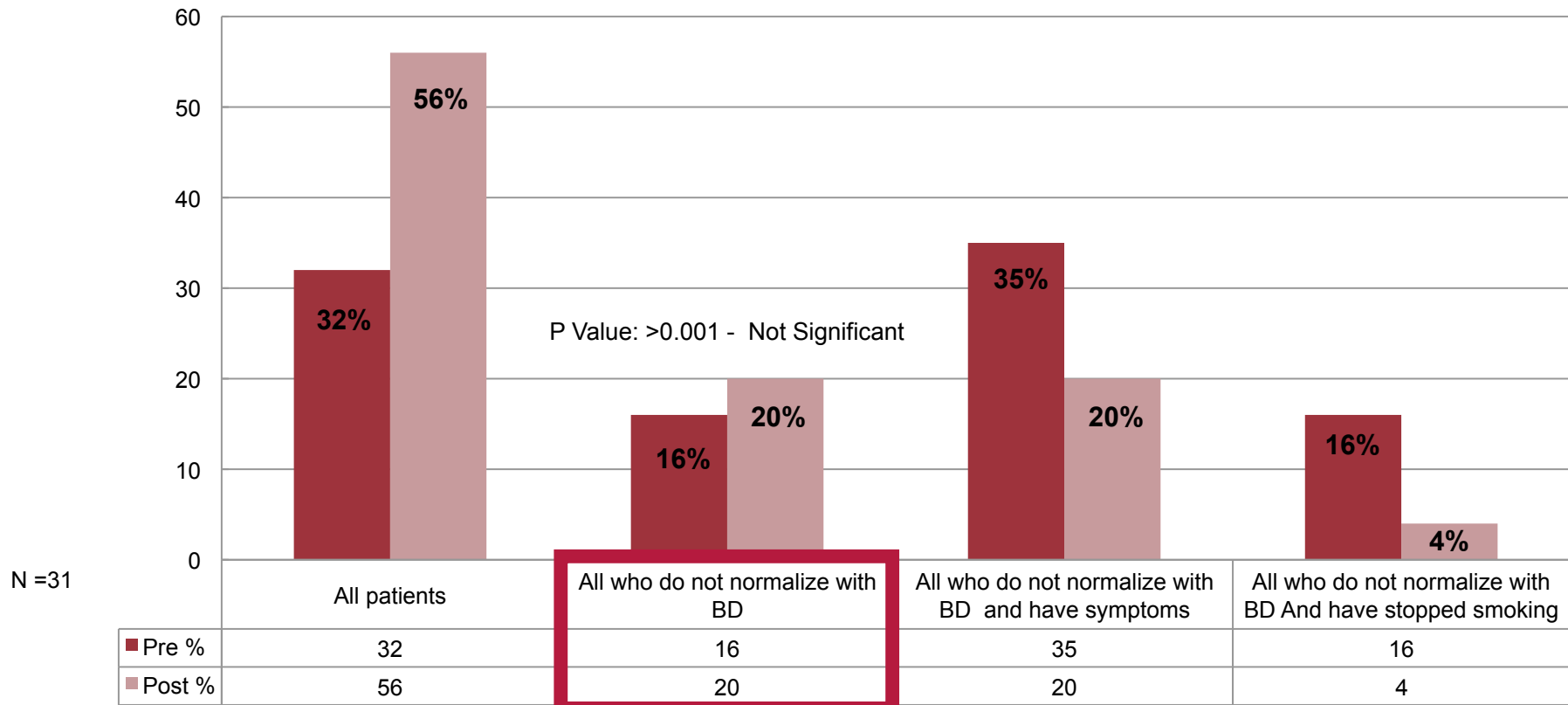
GG is a 45 yo with history of asthma. His spirometry shows: -FVC 80% -FEV-1 60%, post 75% ( > 200 ml increase) -Ratio 0.65. Occasional exacerbations on LABA + Steroids. Would you test patient for alpha-1 Antitrypsin deficiency?



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.)

ATS/ERS recommend Alpha-1 Testing In Chronic Obstructive Pulmonary Disease (COPD)

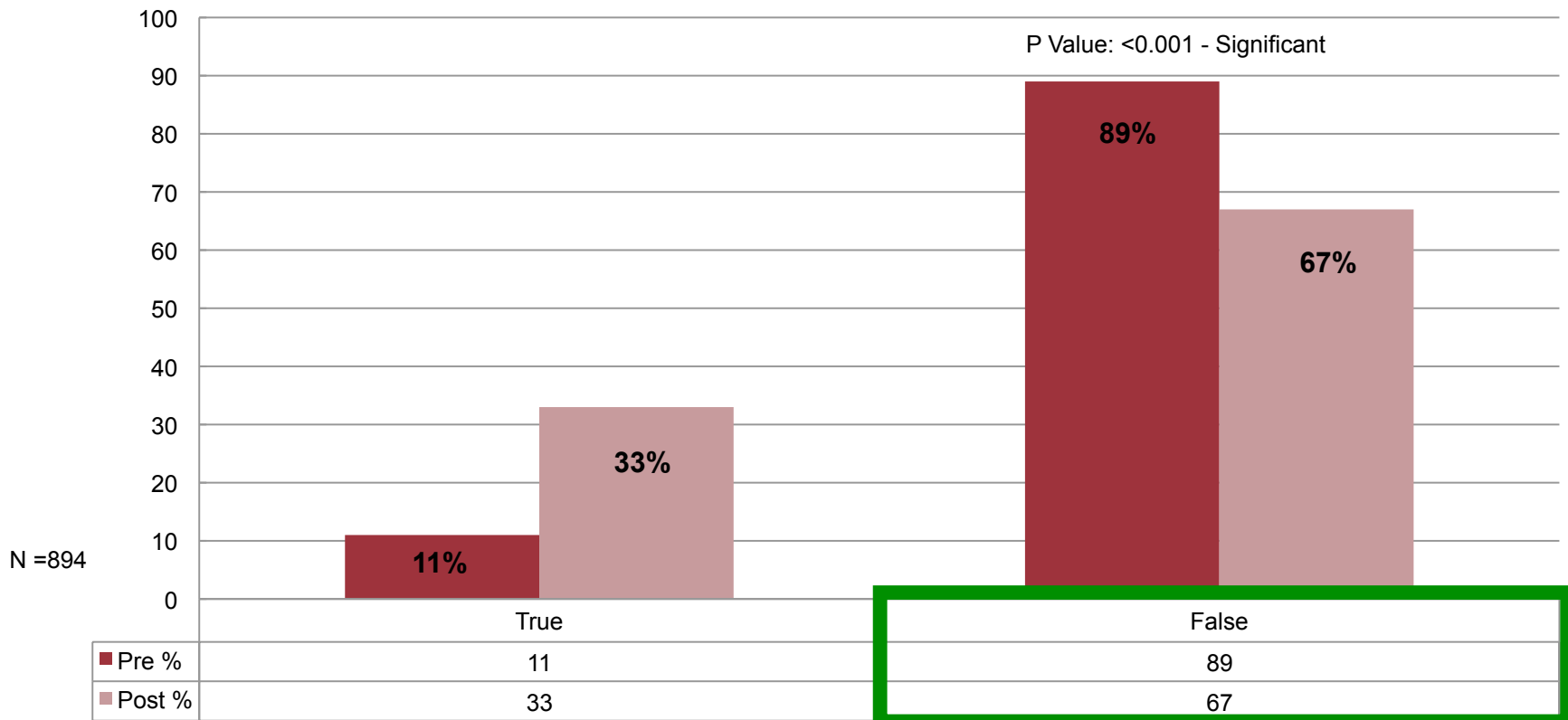


Red highlight indicates no significant difference between pre and post testing.

## Case Vignette Knowledge and Competence Assessment Questions

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

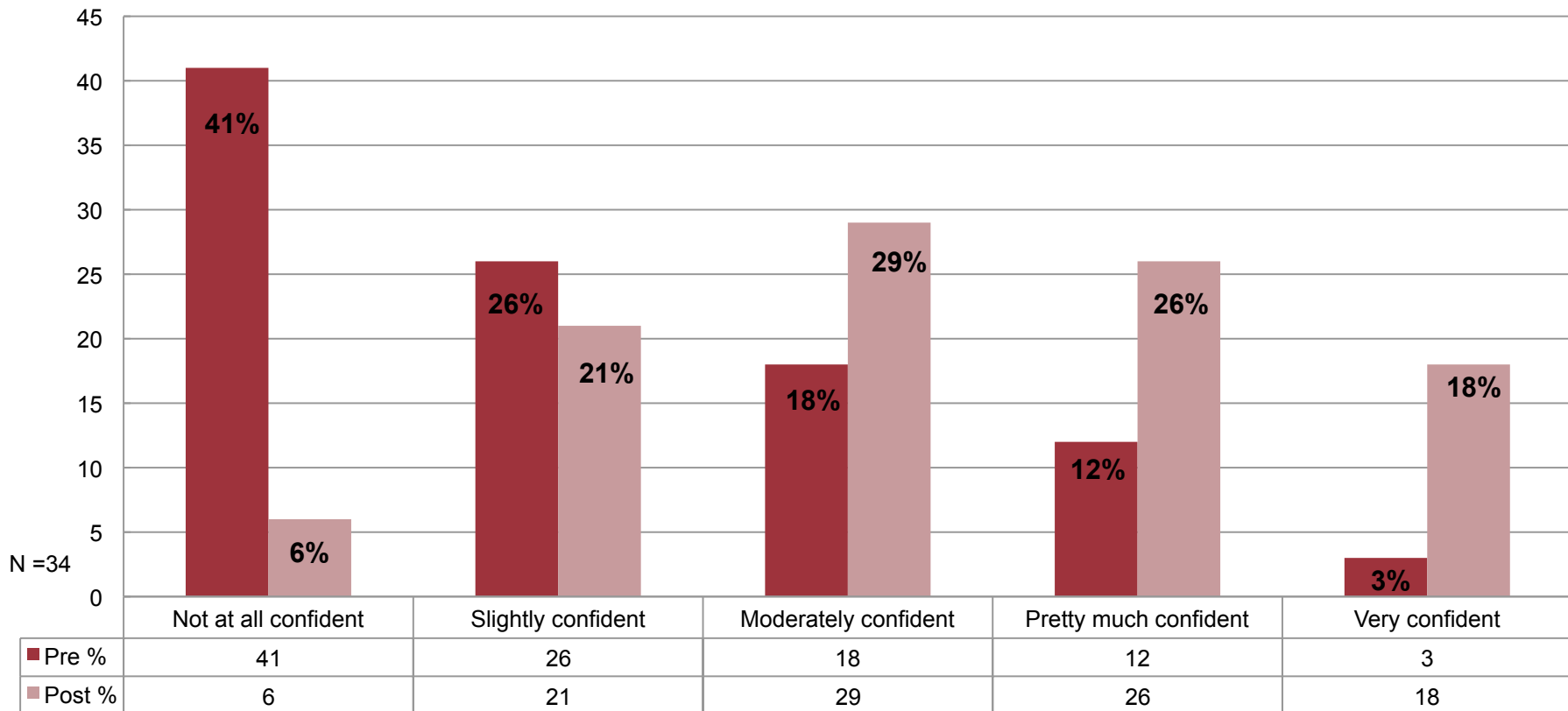
JJ is a 65 yo. and has smoked for 40 yrs -FVC 70% -FEV1 40% no BR -Ratio 0.57 No point in testing him since as a smoker, even if he is positive, he would not get replacement therapy



Green highlight indicates significant difference between pre and post testing.

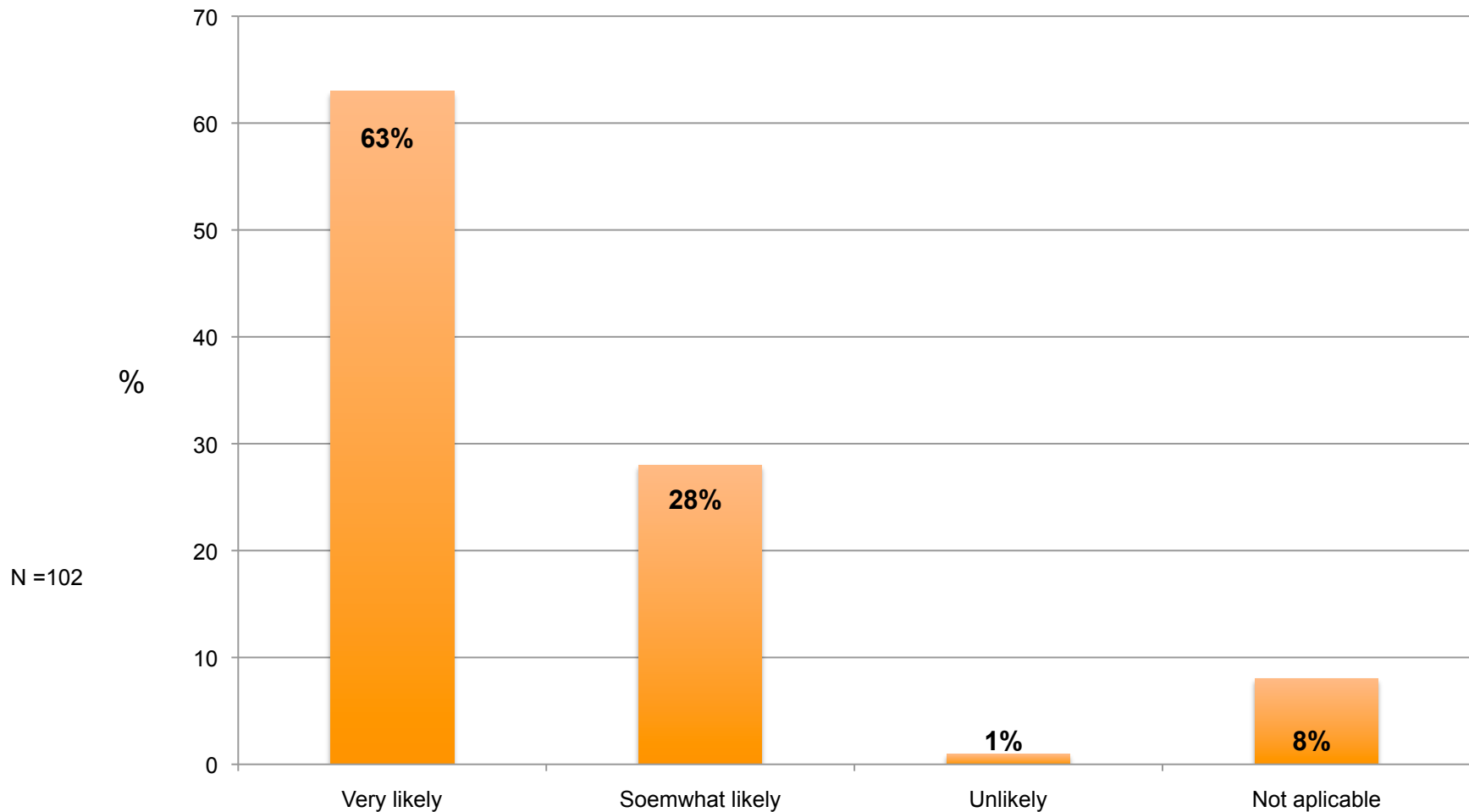
## Changes in Confidence from Pre to Post-Testing Alpha-1 Antitrypsin Deficiency: Future of Diagnosis and Treatment

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 Alpha-1 Antitrypsin Deficiency: Future of Diagnosis and Treatment

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





# Discussion and Implications

## Alpha-1 Antitrypsin Deficiency: Future of Diagnosis and Treatment

Alpha-1 Antitrypsin Deficiency (AATD) is an under-diagnosed condition. The need for continued education in the area of AATD was demonstrated based on literature reviews and surveys of primary care providers that were completed prior to the conference. This educational activity aimed to bring greater awareness about this condition to primary care providers. Planners sought to help primary care providers better explain the prevalence of alpha-1 antitrypsin deficiency (AATD), be better able to discuss AATD testing by ancillary staff and the pulmonary function lab, and enable them to explore novel approaches to increase AATD testing.

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. The results indicated improvement in knowledge in two of the areas tested during the program specifically with respect to testing patients with asthma and COPD for AATD.

Sixty three percent of the attendees indicated that they were very likely to change their practice after the meeting, and twenty eight percent suggested that they would be likely to do so.

Attendee confidence in treating patients with AATD improved following their exposure to the educational material.

This event was successful in the goal of improving understanding of AATD to primary care providers and pulmonologists and had a positive impact in terms of changing their practice.

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 screening methods and new treatment algorithms.