
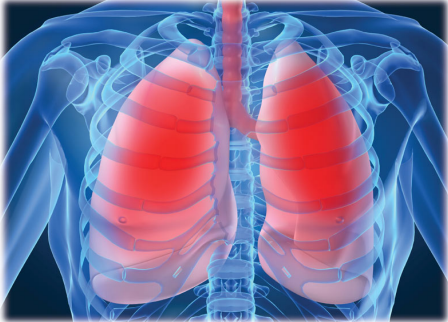


**Outcome Report**  
Interventional Bronchoscopy Update:  
Valves for Emphysema and Treatments of Asthma



**NATIONAL ASSOCIATION  
FOR CONTINUING EDUCATION**



**Challenges in  
Pulmonary and  
Critical Care:  
2010**

**Presented at:  
Cleveland Clinic Florida  
Weston, Florida  
December 4, 2010**

Report Date: 2/18/11

### **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: 2010.

## Commercial Support

Challenges in Pulmonary and Critical Care: 2010 CME activity was supported through educational grants or donations from the following companies:

Actellion  
 CSL Behring  
 Gilead Sciences  
 Talecris Biotherapeutics  
 United Therapeutics Corporation

## Agenda

7:45-8:15	Continental Breakfast and Registration	12:15- 1:15	Lunch/Exhibits
8:15-8:30	Welcome Remarks Franck Rahaghi, MD,MHS, FCCP	1:15-2:15	Pulmonary Hypertension: Reflections on New Directions Franck Rahaghi, MD, MHS, FCCP
8:30-9:30	Bronchiectasis in Adults Anas Hadeh, MD	2:15-3:15	Alpha-1 Antitrypsin Deficiency: Future of Diagnosis and Treatment Michael Campos, MD
9:30-10:30	Update on Idiopathic Pulmonary Fibrosis: State of the Art and the New Guidelines Gustavo Ferrer, MD	3:15-3:30	Break/Vendor Area
10:30- 10:50 <span style="color: red;">Cancelled</span>	Keynote Speaker: Representative Debbie Wasserman Schultz, Florida's 20 <sup>th</sup> District –Health Care in the United States	3:30-4:30	Pulmonary Case Rounds: Interesting Cases in Pulmonary Medicine Franck Rahaghi, MD and Gustavo Ferrer, MD
10:50-11:15	Break/Vendor Area	4:30-4:45	Closing Remarks Franck Rahaghi, MD, MHS, FCCP
11:15-12:15	Interventional Bronchoscopy Update: Valves for Emphysema and Treatments of Asthma Eduardo Oliveira, MD, MBA		

## Levels of Evaluation

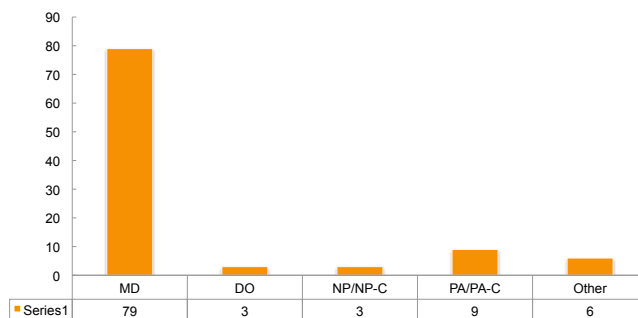
Consistent with the policies of the ACCME, NACE evaluates the effectiveness of all CME activities using a systematic process based on the following model:

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

- 94 attendees
- 70% Physicians; 7% NPs; 11% PAs; 7% RNs; 5% Other
- Over 80% in community-based practice
- 46% PCPs, 2% Endocrinologists; 4% Cardiologists; 19% Pulmonologists; 0% Gastroenterologist; 27% Other or did not respond



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

## Level 2: Satisfaction

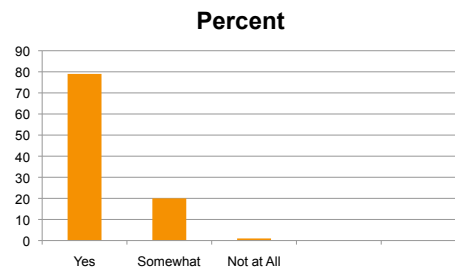
- 98% rated the activity as very good to excellent
- 98% indicated the activity improved their knowledge
- 86% stated that they learned new strategies for patient care
- 77% said they would implement new strategies that they learned in their practice
- 99% said the program was fair-balanced and unbiased

Were our learners satisfied? **Yes!**

## Level 2: Satisfaction

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

Explain patient selection and outcomes of airway valves in the management of emphysema; Explain patient selection and treatment in asthma bronchoscopic thermoplasty; Discuss new horizons for Interventional Bronchoscopy



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.

### Interventional Bronchoscopy Update: Valves for Emphysema and Treatments of Asthma Eduardo Oliveira, MD, MBA

Faculty

Eduardo Oliveira, MD, MBA

Chairman, Division of Medicine

Director, Interventional Pulmonology Program

Cleveland Clinic Florida

Weston, FL

### Learning Objectives

- Explain patient selection and outcomes of airway valves in the management of emphysema
- Explain patient selection and treatment in asthma bronchoscopic thermoplasty
- Discuss new horizons for Interventional Bronchoscopy

### Key Findings

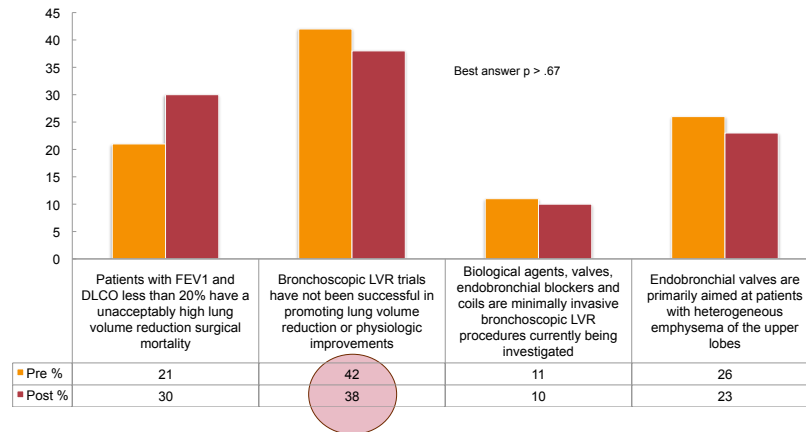
Interventional Bronchoscopy Update: Valves for Emphysema and Treatments of Asthma

Knowledge/Competence	Learners did not demonstrate significant improvement in their answers from pre to post-testing on any of the case-based questions regarding interventional bronchoscopy for treatment of severe emphysema or asthma
Confidence	Participants self-reported that they felt more confident in treating these conditions following the presentation.
Intent to Perform	Learners stated that they were very likely (36%) to somewhat likely (49%) to implement strategies learned at this session in their practice.
Change of Practice Behavior	On a follow-up survey completed 4 weeks after the activity about 80% of learners who responded reported that they strongly agree or agree that they have implemented changes in their practice based on the information they learned in the CME activity.

### Responses to Critical Knowledge and Case-Based Questions

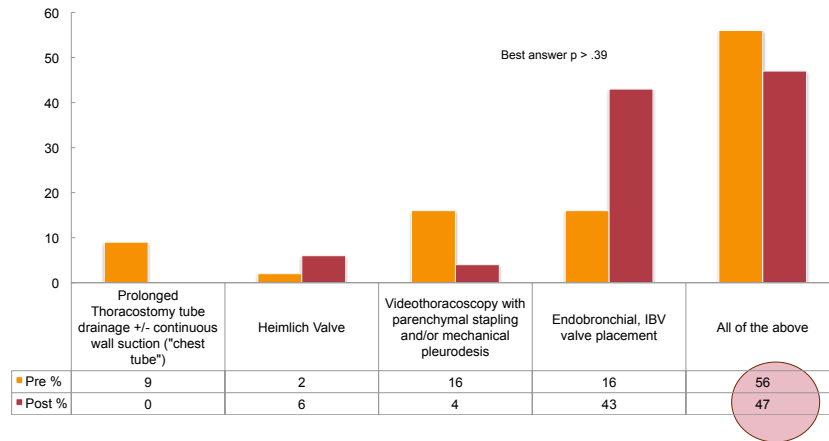
Interventional Bronchoscopy Update: Valves for Emphysema and Treatments of Asthma

A 79 yo patient with severe emphysema, poor performance status with an FEV1 and DLCO 15% predicted, asks you about surgical options to improve his emphysema. All of the following are appropriate statements regarding the current understanding of lung volume reduction (LVR) except:



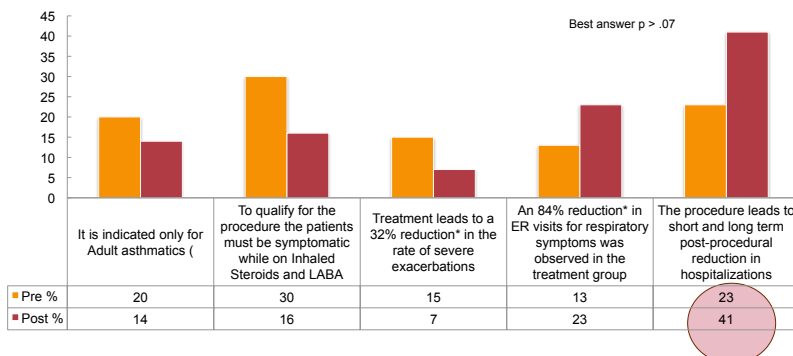
**Responses to Critical Knowledge and Case-Based Questions**  
 Interventional Bronchoscopy Update: Valves for Emphysema and Treatments of Asthma

You are consulted regarding a patient who has developed a persistent air-leak post wedge resection of a lung mass. The chest tube was placed 13 days ago and the leak has not improved at all. Based on your knowledge on this subject, the best option for the treatment of prolonged air-leaks of the lung is:



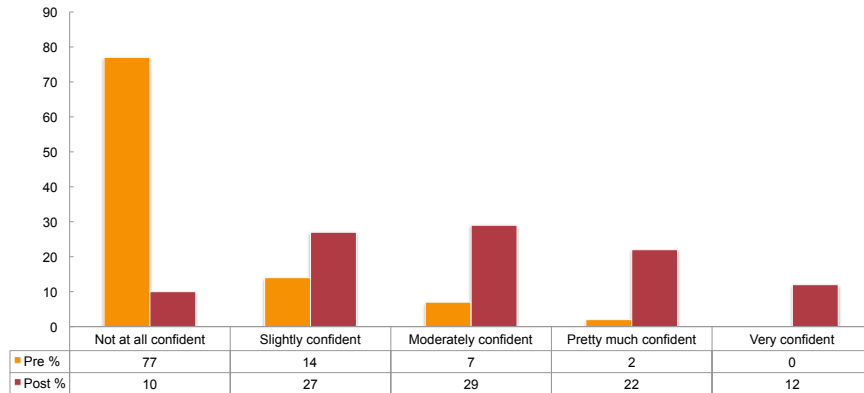
**Responses to Critical Knowledge and Case-Based Questions (cont)**  
 Interventional Bronchoscopy Update: Valves for Emphysema and Treatments of Asthma

A 35 yo male with severe asthma, not well controlled on inhaled steroids, using rescue inhalers two to three times a day, who has had multiple ED visits for asthma exacerbation over the past 12 months comes for follow up. He hands you a Wall Street Journal article discussing a recently FDA approved procedure called bronchial thermoplasty and asks if he would be a good candidate for the procedure. All of the above is true regarding bronchial thermoplasty except:



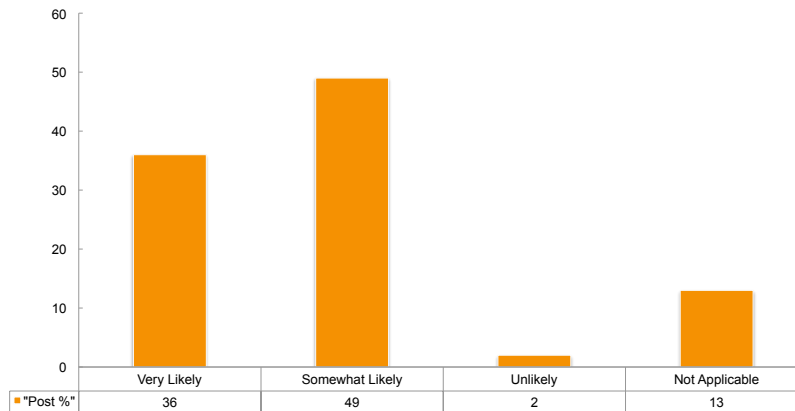
### Changes in Confidence from Pre to Post-Testing Interventional Bronchoscopy Update: Valves for Emphysema and Treatments of Asthma

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 Interventional Bronchoscopy Update: Valves for Emphysema and Treatments of Asthma

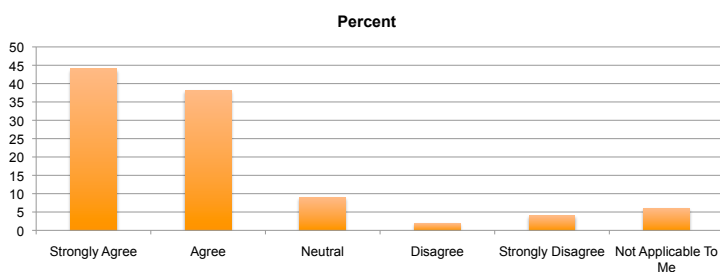
How likely are you to implement strategies learned from this presentation in your practice?





### Self-Reported Changes in Practice Behavior Four Weeks After the Activity Interventional Bronchoscopy Update: Valves for Emphysema and Treatments of Asthma

**Percent of Learners Who Agreed That They Changed Their Actual Practice Behavior for the Learning Objectives Listed Below Four Weeks After the CME Activity**



N=32

**Learning Objectives:** Explain patient selection and outcomes of airway valves in the management of emphysema; Explain patient selection and treatment in asthma bronchoscopic thermoplasty; Discuss new horizons for Interventional Bronchoscopy

## Discussion and Implications

### Interventional Bronchoscopy Update: Valves for Emphysema and Treatments of Asthma

The need for continued education in the evaluation and treatment of severe emphysema and asthma was demonstrated based on literature reviews and surveys completed prior to the conference series.

Dr. Eduardo Oliveira, the NACE faculty for this program, received good ratings on his effectiveness in delivering this material. Attendee knowledge was assessed using the case vignettes listed above with results indicating no statistically significant improvement in the post testing on any of the questions asked. However, participants reported that the learning objectives of the activity were met and they are better able as a result of this lecture to: explain patient selection and outcomes of airway valves in the management of emphysema, explain patient selection and treatment in asthma bronchoscopic thermoplasty, and discuss new horizons for interventional bronchoscopy.

Self-reported confidence in this area of patient care did improve following the education.

A majority of learners reported on a 1 month follow up survey to have implemented the learning objectives of this activity

The poor improvement in post-test scores on case-based questions may indicate that gaps in knowledge in this area exist even after the education was delivered. The topic of interventional bronchoscopy and treatment of emphysema and asthma continues to be an important area for future educational programs.