
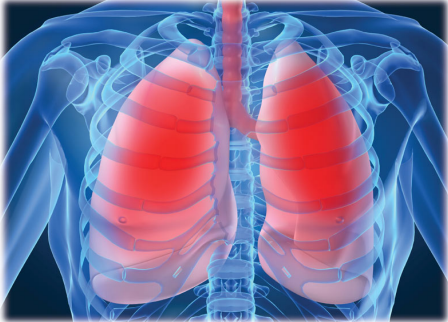


Outcome Report
Pulmonary Hypertension:
Reflections on New Directions



**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
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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 Cancelled	Keynote Speaker: Representative Debbie Wasserman Schultz, Florida's 20 th 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

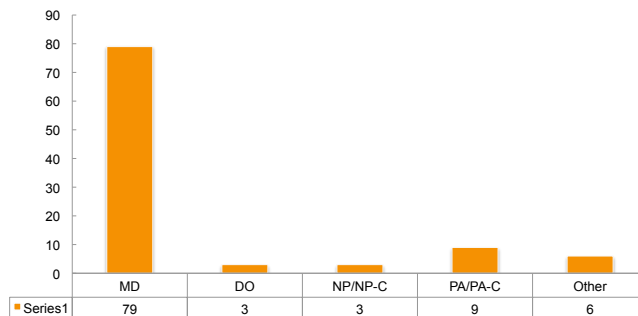
Consistent with the policies of the ACCME, NACE evaluates the effectiveness of all CME activities using a systematic process based on the following model:

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

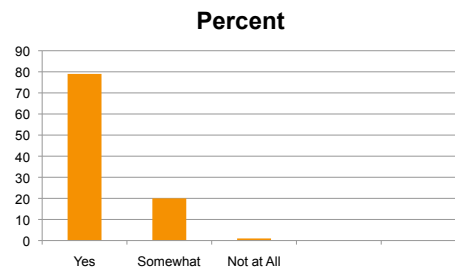
- 98% rated the activity as very good to excellent
- 98% indicated the activity improved their knowledge
- 86% stated that they learned new strategies for patient care
- 77% said they would implement new strategies that they learned in their practice
- 99% said the program was fair-balanced and unbiased

Were our learners satisfied? **Yes!**

Level 2: Satisfaction

Upon completion of this activity, I can now –

Understand the pathophysiology of pulmonary arterial hypertension (PAH);
Diagnose and accurately assess disease severity in PAH; Effectively use
recommended therapies including targeted treatment options for PAH



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.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.

Pulmonary Hypertension: Reflection on New Direction Franck Rahaghi, MD, MHS

Faculty

Franck Rahaghi, MD, MS

Director, Pulmonary Hypertension Clinic

Director, Pulmonary Education and Rehabilitation

Chair of Quality

Cleveland Clinic Florida, Weston, FL

Learning Objectives

- Understand the pathophysiology of pulmonary arterial hypertension (PAH)
- Diagnose and accurately assess disease severity in PAH
- Effectively use recommended therapies including targeted treatment options for PAH

Key Findings

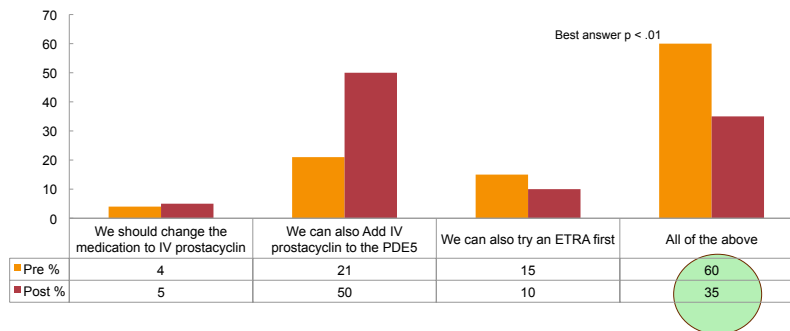
Pulmonary Hypertension: Reflection on New Direction

Knowledge/Competence	Learners only demonstrated significant improvement in their answers from pre to post-testing on one of the three case-based questions regarding methods to diagnose and treat PAH.
Confidence	Participants indicated that they improved in confidence to care for patients with PAH following the educational program.
Intent to Perform	Learners stated that they were very likely (48%) to somewhat likely (39%) 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 79% 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

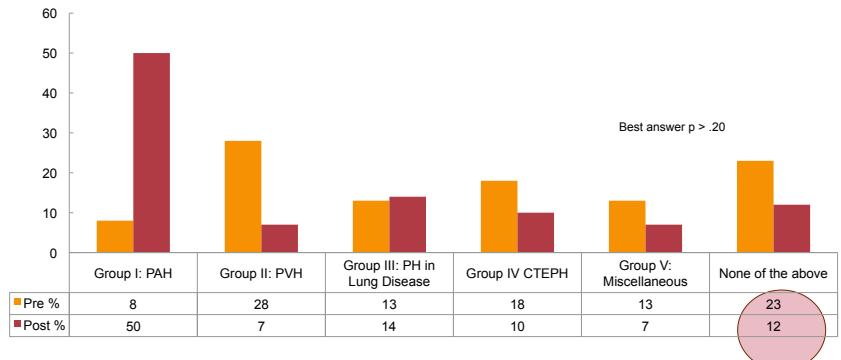
Pulmonary Hypertension: Reflection on New Direction

AJ is a 36 yo female with Group I stage III disease that is getting worse, she has already been on a PDE5. Her 6 min walk went from 380 to 300m, her pressures in Echo increased from 45 to 65, and she feels worse



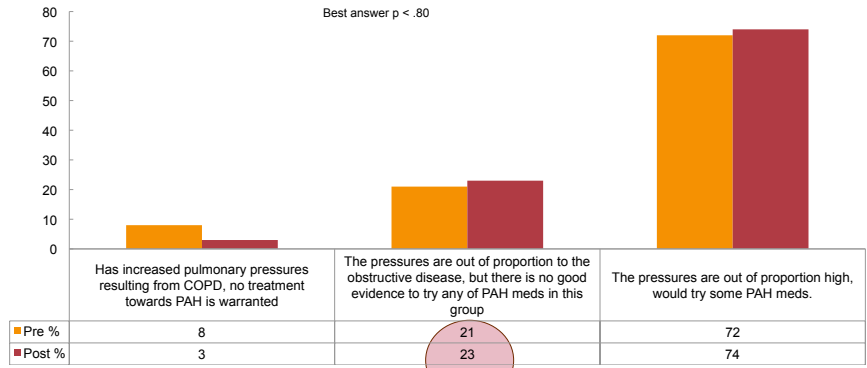
Responses to Critical Knowledge and Case-Based Questions
Pulmonary Hypertension: Reflection on New Direction

Pulmonary Veno-occlusive Disease is now classified under which Group?



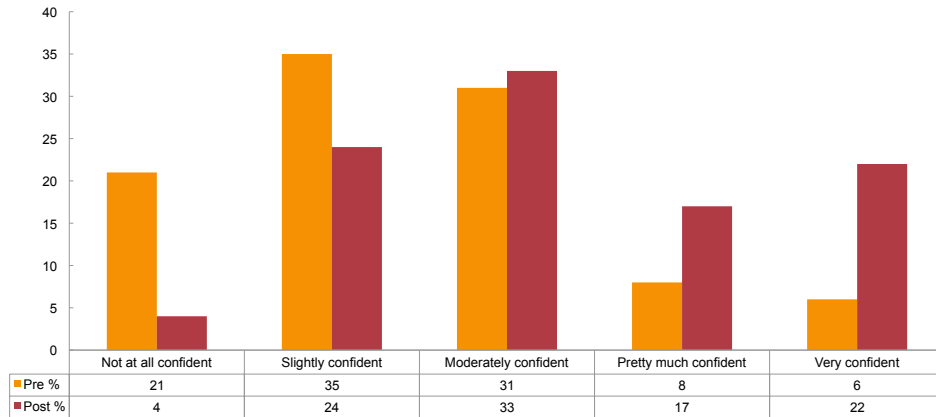
Responses to Critical Knowledge and Case-Based Questions (cont)
Pulmonary Hypertension: Reflection on New Direction

65 year old with COPD diagnosed 15 years ago. He has been treated with Prednisone and Methotrexate for 10 years off and on. He presents with increased dyspnea. On exam, there is increased JVD, basilar crackles (coarse), no wheezing. Chest CT basilar honeycombing, patchy infiltrates, slowly worsening over the last years. Evidence of pulmonary artery enlargement Echo showed RVSP of 55, NL LV, LN Valves FVC 60%, FEV1 65%, VC 60%, DLCO 30% 6 min walk 300m from HR 85/94% to HR 101/86% This patient:



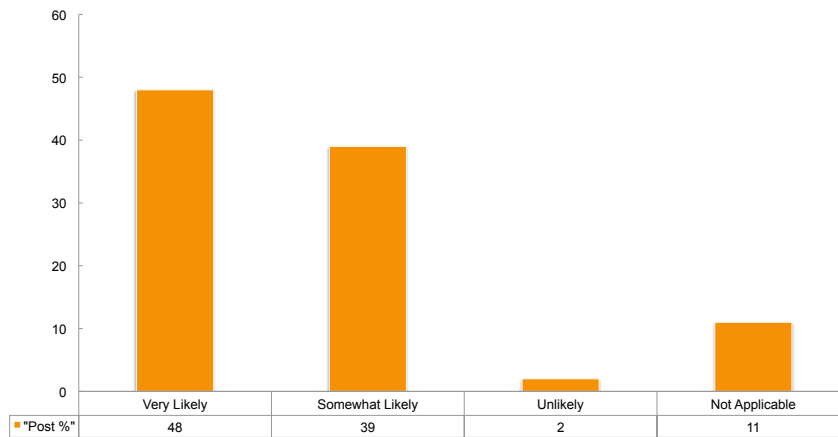
Changes in Confidence from Pre to Post-Testing Pulmonary Hypertension: Reflection on New Direction

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



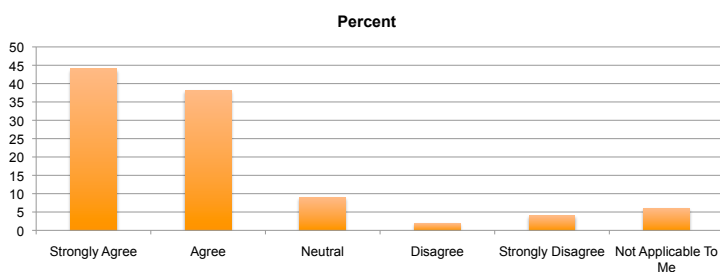
Intention to Change Practice Behavior and Implement Learning Pulmonary Hypertension: Reflection on New Direction

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 Pulmonary Hypertension: Reflection on New Direction

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: Understand the pathophysiology of pulmonary arterial hypertension (PAH); Diagnose and accurately assess disease severity in PAH; Effectively use recommended therapies including targeted treatment options for PAH

Discussion and Implications

Pulmonary Hypertension: Reflection on New Direction

The need for continued education in the evaluation and treatment of Alpha-one Anti-trypsin Deficiency was demonstrated based on literature reviews and surveys completed prior to the conference series.

Dr. Franck Rahaghi, the NACE faculty for this program, received high ratings on his effectiveness in delivering this material. Attendee knowledge was assessed using the case vignettes listed above with results indicating a statistically significant improvement in the post testing on only one of three questions asked. However, participants reported that they are better able as a result of this lecture to: understand the pathophysiology of pulmonary arterial hypertension (PAH), diagnose and accurately assess disease severity in PAH, and effectively use recommended therapies including targeted treatment options for PAH.

Participants clearly reported greater confidence in care for patients with PAH following the activity.

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

The not so notable changes in post-test scores signify a clear gap in knowledge and an unmet need amongst clinicians in the area of PAH. It continues to be an important area for future educational programs.