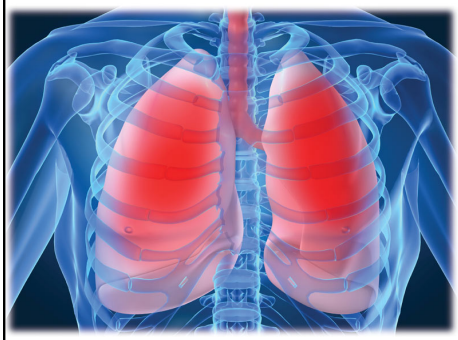
Outcome Report

Pulmonary Case Rounds:
Interesting Cases in Pulmonary Medicine



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

NACE

NATIONAL ASSOCIATION FOR CONTINUING EDUCATION

Challenges in Pulmonary and Critical Care: 2010

Report Date: 2/18/11

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Course Director

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Director, Pulmonary Hypertension Clinic
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Chair of Quality
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Activity Planning Committee
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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 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 Biotherapeutucs
United Therapeutics Corporation

Agenda

7:45-8:15	Continental Breakfast and Registration
8:15-8:30	Welcome Remarks Franck Rahaghi, MD,MHS, FCCP
8:30-9:30	Bronchiectasis in Adults Anas Hadeh, MD
9:30-10:30	Update on Idiopathic Pulmonary Fibrosis: State of the Art and the New Guidelines Gustavo Ferrer, MD
10:30- 10.50 Cancelled	Keynote Speaker: Representative Debbie Wasserman Schultz, Florida's 20th District –Health Care in the United States
10:50-11:15	Break/Vendor Area
11:15-12:15	Interventional Bronchoscopy Update: Valves for Emphysema and Treatments of Asthma Eduardo Oliveira, MD, MBA
12:15- 1:15	Lunch/Exhibits
1:15-2:15	Pulmonary Hypertension: Reflections on New Directions Franck Rahaghi, MD, MHS, FCCP
2:15-3:15	Alpha-1 Antitrypsin Deficiency: Future of Diagnosis and Treatment Michael Campos, MD
3:15-3:30	Break/Vendor Area
3:30-4:30	Pulmonary Case Rounds: Interesting Cases in Pulmonary Medicine Franck Rahaghi, MD and Gustavo Ferrer, MD
4:30-4:45	Closing Remarks Franck Rahaghi, MD, MHS, FCCP

Levels of Evaluation

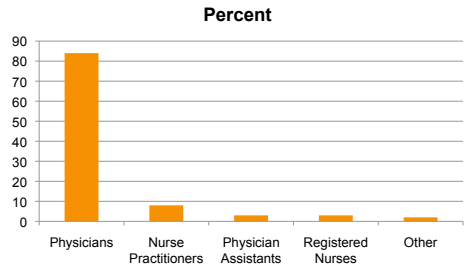
Consistent with the policies of the ACCME, NACE evaluates the effectiveness of all CME activities using a systematic process based on the following model:

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!

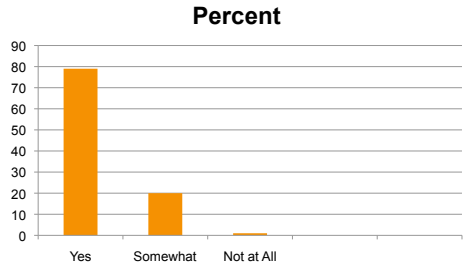
Level 2: Satisfaction

- 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 –
Discuss creation of systematic differential diagnosis; Discuss use of medical imaging in pulmonary medicine; Explain use and correlation with pathological findings



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 Med14(10): 771-80.

Pulmonary Case Rounds: Interesting Cases in Pulmonary Medicine
Franck Rahaghi, MD, MHS and Gustavo Ferrer, MD, FCCP

Faculty

Franck Rahaghi, MD, MS
Director, Pulmonary Hypertension Clinic
Director, Pulmonary Education and Rehabilitation
Chair of Quality
Cleveland Clinic Florida, Weston, FL

Gustavo Ferrer, MD, FCCP
Chairman, Critical Care Committee
Associate Program Director, Pulmonary Fellowship
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Learning Objectives

- Discuss creation of systematic differential diagnosis
- Discuss use of medical imaging in pulmonary medicine
- Explain use and correlation with pathological findings

Key Findings

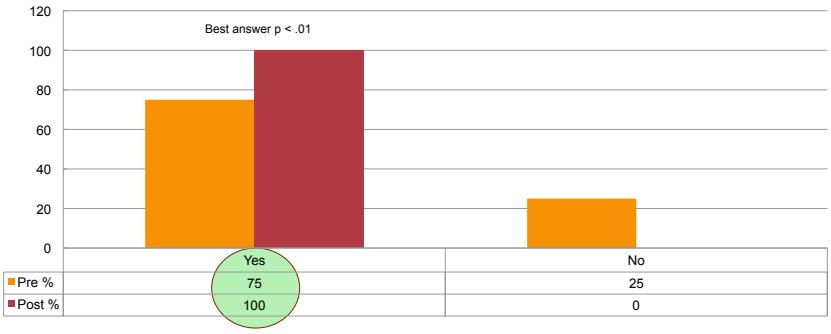
Pulmonary Case Rounds: Interesting Cases in Pulmonary Medicine

Knowledge/Competence	Learners demonstrated significant improvement in their answers from pre to post-testing on two of the three questions regarding cases in pulmonary medicine.
Confidence	Confidence in the treatment of pulmonary diseases increased substantially following the presentation.
Intent to Perform	Learners stated that they were very likely (71%) to somewhat likely (17%) 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 77% 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 Case Rounds: Interesting Cases in Pulmonary Medicine

Case Question 1: 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?



Responses to Critical Knowledge and Case-Based Questions

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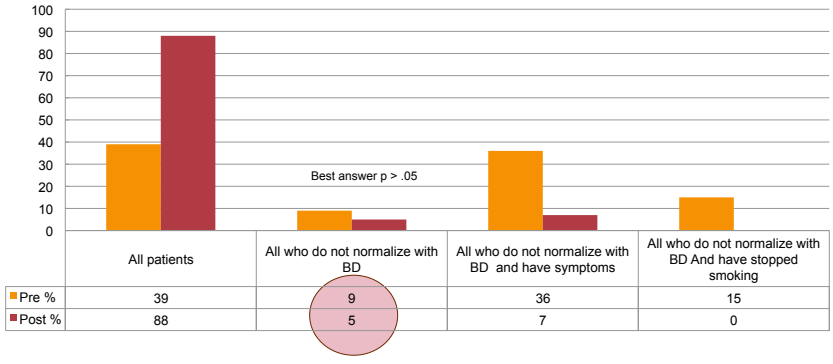
ATS/ERS recommend Alpha-1 Testing In Chronic Obstructive Pulmonary Disease (COPD) to which of the following groups?



Responses to Critical Knowledge and Case-Based Questions (cont)

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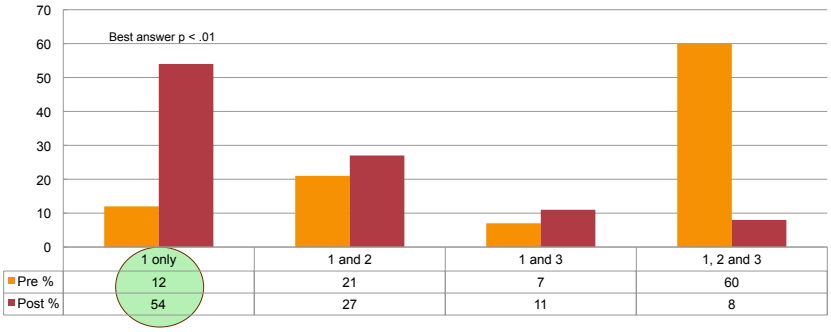
GINA (Genetic Information and Non-discrimination Act) 1. Protects against discrimination by employers 2. Protects against discrimination by Life Insurance Issuers 3. Applies to all employers large and small.



	1 only	1 and 2	1 and 3	1, 2 and 3
Pre %	12	21	7	60
Post %	54	27	11	8

Changes in Confidence from Pre to Post-Testing

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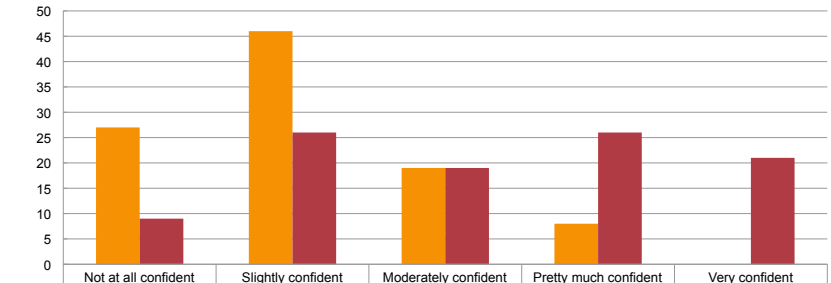
On a scale of 1 to 5 please rate how confident you would be in treating patients with this condition.

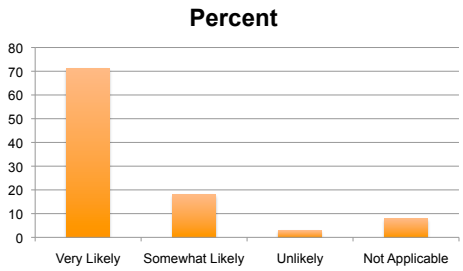


	Not at all confident	Slightly confident	Moderately confident	Pretty much confident	Very confident
Pre %	27	46	19	8	0
Post %	9	26	19	26	21

Intention to Change Practice Behavior and Implement Learning

Pulmonary Case Rounds: Interesting Cases in Pulmonary Medicine

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

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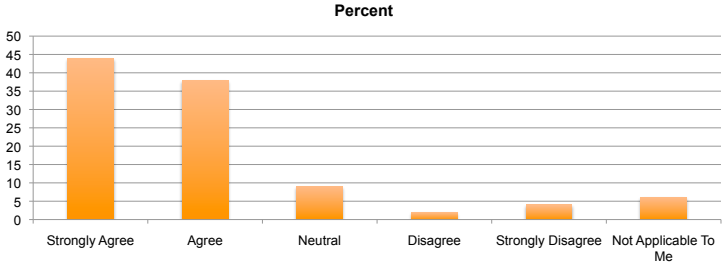
Percent of Learners Who Agreed That They Changed Their Actual Practice Behavior for the Learning Objectives Listed Below Four Weeks After the CME Activity



N=32

Learning Objectives: Discuss creation of systematic differential diagnosis; Discuss use of medical imaging in pulmonary medicine; Explain use and correlation with pathological findings

Discussion and Implications

Pulmonary Case Rounds: Interesting Cases in Pulmonary Medicine

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

Dr. Franck Rahaghi and Dr. Gustav Ferrer, the NACE faculty for this program, received high ratings on their 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 two of three questions. Furthermore, participants reported that they were better able as a result of this lecture to: discuss creation of systematic differential diagnosis, discuss use of medical imaging in pulmonary medicine, and explain use and correlation with pathological findings.

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

The notable changes in post-test scores signify a clear gap in knowledge and an unmet need amongst clinicians. This topic continues to be an important area for future educational programs.