Challenges in Pulmonary and Critical Care: 2008
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Introduction to Outcome Study

Overview of CME Activity
The National Association for Continuing Education (NACE), held a CME activity entitled Challenges in Pulmonology and Critical Care: Update 2008 on November 15, 2008 at the Cleveland Clinic Weston in Weston, Florida. The course director for this series was Franck Rahaghi, MD. This is NACE’s second year in presenting this activity.

The focus of this CME activity was to provide an update in the prevention, diagnosis, and management of pulmonary disease to pulmonologists, hospitalists, primary care providers and other health care providers who treat patients with pulmonary diseases. Current findings in pulmonary research in such topics as COPD, Sepsis, Asthma, Bronchioectasis and Cystic Fibrosis in adults, Sarcoidosis, Pulmonary Hypertension, and Alpha One Anti-trypsin Deficiency was presented. It was anticipated that clinicians would benefit from learning new research findings that could improve their knowledge and competence and that could lead to improved patient care and safety. The content of each activity was derived through a needs assessment of a variety of therapeutic areas that included identified gaps in knowledge, competence or performance of physicians and the development of educational objectives to be addressed in the curricula of each presentation to narrow these gaps.

NACE is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. The planning and delivery of this CME activity conformed with the policies of the ACCME. This activity had also been reviewed and was acceptable for Prescribed credit(s) by the American Academy of Family Physicians.

Several topics in this CME activity were assessed with respect to Kirkpatrick’s first four levels of evaluation: learner participation, learner satisfaction, effect on learner knowledge (and confidence), and effect on practice behavior. Data was collected via paper and pencil survey instruments and electronically via an audience response system at live symposia. NACE used case-based vignettes to demonstrate competence in applying critical knowledge and to measure practitioner practice patterns. 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. Peabody et al. (2000; 2004) compared the validity of three methods to assess quality of health care: case vignettes, observation of "standard patient" visits, and chart abstractions. Vignettes were found to be a valid and comprehensive method of assessing quality of health care provided in actual clinical practice. Vignettes can be used for diverse clinical settings, diseases, physician types, and situations in which case-mix variation is a concern. They can be useful to measure the effect of interventions intended to change clinical practice behavior.

NACE collaborated with Health Link Systems Inc. and Educational Measures Inc. to design the methodology used in the outcome study and to collect and analyze the data with respect to each of topic presented.

Conference Agenda for November 15, 2007 —Cleveland Clinic Florida, Weston, Florida

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30-8:00</td>
<td>Registration and Continental Breakfast</td>
</tr>
<tr>
<td>8:00-8:10</td>
<td>Welcome</td>
</tr>
<tr>
<td>8:10-9:00</td>
<td>Asthma: Applying the New Guidelines</td>
</tr>
<tr>
<td></td>
<td>Frank Eidelman, MD</td>
</tr>
<tr>
<td>9:00-9:50</td>
<td>Surviving Sepsis: What Is The Latest Consensus?</td>
</tr>
<tr>
<td></td>
<td>R. P. Dellinger, MD</td>
</tr>
<tr>
<td>9:50-10:20</td>
<td>Break</td>
</tr>
<tr>
<td>10:20-11:10</td>
<td>Alpha one Anti-trypsin Deficiency: Future of testing</td>
</tr>
<tr>
<td></td>
<td>Franck Rahaghi, MD</td>
</tr>
<tr>
<td>11:10-12:00</td>
<td>Advances in Pulmonary Hypertension and Chronic Thromboembolic Disease</td>
</tr>
<tr>
<td></td>
<td>Victor Tapson, MD</td>
</tr>
<tr>
<td>12:00-1:10</td>
<td>Lunch</td>
</tr>
<tr>
<td>1:10-2:00</td>
<td>Advances in the Treatment of Sarcoidosis</td>
</tr>
<tr>
<td></td>
<td>Alvin S. Teirstein, MD</td>
</tr>
<tr>
<td>2:00-2:50</td>
<td>COPD: What Is The Evidence?</td>
</tr>
<tr>
<td></td>
<td>Charlie Strange, MD</td>
</tr>
<tr>
<td>2:50-3:10</td>
<td>Break</td>
</tr>
<tr>
<td>3:10-4:00</td>
<td>Bronchiectasis and Adult Cystic Fibrosis: Diagnosis and Management</td>
</tr>
<tr>
<td></td>
<td>Scott Donaldson, MD</td>
</tr>
<tr>
<td>4:00-4:50</td>
<td>Medical-Legal and Regulatory Aspects of Medicine: What You Need To Know</td>
</tr>
<tr>
<td></td>
<td>Eduardo Oliveira, MD</td>
</tr>
<tr>
<td>4:50-5:00</td>
<td>Conference Wrap Up</td>
</tr>
<tr>
<td></td>
<td>Franck Rahaghi, MD</td>
</tr>
</tbody>
</table>
Learner Participation Data
A total of 85 people attended this activity. Each attendee received a CME certificate upon completion of a follow-up survey a few weeks after the conference ended. The breakdown in terms of degree of each attendee is listed below:

<table>
<thead>
<tr>
<th>MD</th>
<th>DO</th>
<th>NP</th>
<th>PA</th>
<th>RN</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>61</td>
<td>4</td>
<td>4</td>
<td>9</td>
<td>1</td>
<td>6</td>
<td>85</td>
</tr>
</tbody>
</table>

The breakdown in terms of area of specialty of attendees is listed below:

<table>
<thead>
<tr>
<th>Primary Care</th>
<th>Endo</th>
<th>Rheum</th>
<th>Pulm</th>
<th>Cardio</th>
<th>GI</th>
<th>OBGYN</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>42</td>
<td>1</td>
<td>2</td>
<td>21</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>17</td>
<td>85</td>
</tr>
</tbody>
</table>

Learner Satisfaction and Comments About This Activity
Attendees were asked to complete survey instruments to collect their opinions regarding a number of areas about the conference including: their satisfaction with the CME activity, whether they found the information presented to be relevant to their practice needs, effectiveness of the educational program in meeting stated learning objectives, speaker in teaching, and the likelihood that they would incorporate new information learned at the activity into their patient care.

Compared to other CME activities that I have participated in over the past year, I would rate this activity as . . .

How effective was this activity in meeting the stated learning objectives?

<table>
<thead>
<tr>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Fair</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| %         | 69        | 29   | 1    | 0              | 0               |

How effective was this activity in meeting the stated learning objectives?

<table>
<thead>
<tr>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Fair</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| %         | 72        | 28   | 0    | 0              | 0               |
How useful and relevant was the information provided to your practice.

<table>
<thead>
<tr>
<th></th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Fair</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>62</td>
<td>26</td>
<td>12</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

How effective will the information you learned during this activity be in helping you improve your skills or judgment?

<table>
<thead>
<tr>
<th></th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Fair</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>59</td>
<td>40</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

How well did this activity include opportunities to learn interactively from faculty/participants?

<table>
<thead>
<tr>
<th></th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Fair</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>65</td>
<td>31</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
How likely are you to make changes in your practice based on the information presented during this CME activity?

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very likely</td>
<td>41</td>
</tr>
<tr>
<td>Pretty likely</td>
<td>42</td>
</tr>
<tr>
<td>Somewhat likely</td>
<td>15</td>
</tr>
<tr>
<td>Unlikely</td>
<td>2</td>
</tr>
</tbody>
</table>

In what areas will you make changes in practice? (Please check all that apply.)

<table>
<thead>
<tr>
<th>Area</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening/diagnosis</td>
<td>33</td>
</tr>
<tr>
<td>Treatment/Management</td>
<td>35</td>
</tr>
<tr>
<td>Staff education</td>
<td>9</td>
</tr>
<tr>
<td>Patient education</td>
<td>18</td>
</tr>
<tr>
<td>I do not plan to incorporate</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
</tr>
</tbody>
</table>

How soon will you incorporate the information from this CME activity into your practice?

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 1</td>
<td>59</td>
</tr>
<tr>
<td>1-3 months</td>
<td>19</td>
</tr>
<tr>
<td>4-6 months</td>
<td>6</td>
</tr>
<tr>
<td>I am already</td>
<td>12</td>
</tr>
<tr>
<td>I do not plan</td>
<td>4</td>
</tr>
</tbody>
</table>
Which statement(s) best reflects your reasons for participating in this activity (Please check all that apply.):

![Bar chart showing reasons for participation]

- Future CME activities in these subject areas are necessary.

![Bar chart showing level of agreement]

**Topics Desired by Attendees for Future CME Activities**
Attendees expressed an interest in learning more about the topics listed below.

- PE/Cardiac abnormalities/Rheumatologic disease
- Hypertension
- HTN guidelines/Inflammatory diseases
- Radiological correlation with clinical condition
- Chronic no cancer pain
- CKD
- Treatment of respiratory failure
- Connective tissue disease
- Primary Care
- Lupus/Crest Syndrome/IPF
- More medicological presentations-Medicare/P+P issue
- CHF/CAD/CAP
- Diagnostic procedures in lung disease
- Diabetes
- HIV management update
- HRT
- ADHD
- Lung cancer/Approach to secondary pulmonary hypertension
- Diabetic care-new agents and tightier control
Acute cardiac emergencies
Lung cancer/Occupational lung disease
TB
RA
Lung transplantation/Pulmonary embolism
Endocrine/Rheumatology
Pulmonary Fibrosis/ILD
Orthopedic/Dermatology
Anticoagulation therapy

References

Asthma: Applying the New Guidelines

Challenges in Pulmonology and Critical Care: Update 2008

Cleveland Clinic Weston
Weston, Florida
November 15, 2008

Presenter
Frank Eidelman, MD
Chairman, Department of Allergy and Immunology
Cleveland Clinic Florida
Weston, FL

Prepared on December 28, 2008
Asthma: Applying the New Guidelines
Presenter: Frank Eidelman, MD

Executive Summary
The topic, Asthma: Applying the New Guidelines, was presented at the Cleveland Clinic Weston in Weston, Florida on November 15, 2008 as part of a full day CME activity entitled Challenges in Pulmonology and Critical Care: Update 2008.

Asthma affects an estimated 17 million Americans or 6.4 percent of the U.S. population. Children account for 4.8 million of the nation's asthma sufferers. The goal of the 2007 update of the National Asthma Education and Prevention Program (NAEPP) Guidelines is to inform all providers involved in the care of patients with Asthma and to translate the research findings into both comprehensive and logical recommendations that will enable asthma patients to better control their disease.\(^1\)\(^2\) A number of key changes, both in terms of medical treatment and fundamental new approaches to overall asthma care, are part of the Expert Panel Report 3 (EPR-3) document.\(^3\)

At the conclusion of this CME activity, attendees should be able to:
- Discuss the philosophy of the new Asthma recommendations
- Discuss the specific changes in the EPR
- Discuss novel therapies in asthma.

Dr. Frank Eidelman, received very high ratings on his effectiveness in delivering this material. Attendee knowledge was assessed using a case vignette described below with results not indicating a statistically significant improvement from pre-testing to post-testing. There was slight increase in confidence levels in the management of these patients, as reported by conference attendees.

Speaker Effectiveness
Attendees were asked to rate the effectiveness of each speaker in his/her ability to communicate information about the topic being discussed. Effectiveness was rated on a five-point scale, from “Unsatisfactory” to “Excellent.”

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Fair</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frank Eidelman, MD</td>
<td>57%</td>
<td>36%</td>
<td>4%</td>
<td>2%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Speaker Bias
Attendees were also asked to rate the extent to which each speaker presented information in a manner that was fair, balanced, and free of commercial bias on a five-point scale, from “Unsatisfactory” (biased) and five being “Excellent” (unbiased).

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Fair</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frank Eidelman, MD</td>
<td>77%</td>
<td>21%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Effect on Learner Knowledge
Case Vignettes, Questions, and Preferred Answers (bolded)
The following question was delivered through an ARS system to attendees at the CME activity in which this topic was presented. Pre and post-test responses were collected from attendees who responded to the ARS questions. The graphs below (first bar=pre; second bar=post; preferred answer in bold) display the results of each question below.

This is a 22 year old African-American female who presents with cough and wheezing x 2 years. She was sent as a post ER visit on a prednisone taper. She has increased symptoms around cats. She takes Albuterol daily. Awakens 2X/wk due to asthma. Uses inhaled corticosteroids irregularly. She has had 2 previous ER visits in the past year.

Physical examination
- Obese
- Conjunctivae injected
- Swollen boggy turbinates
- Occasional wheezing

PFT’s:
- FVC 80% predicted
- FEV1 70% predicted , 14 % improvement after bronchodilator
- Allergy skin tests : Positive for mites, cat, mold
At this Point would you:

1. Double her inhaled corticosteroid (ICS)
2. Add a long acting beta agonist (LABA) or switch to a combination ICS/LABA
3. Add omalizumab
4. Start allergy immunotherapy

P Value: 0.072 - Not Significant

**Effect on Learner Confidence**

Confidence in treating patients with this condition was measured during the pre and post-tests. Practitioner confidence 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.

On a scale of 1 to 7 please rate how confident you would be in treating a patient with this condition.

1. Not at all confident
2. Only slightly confident
3. Somewhat confident
4. Moderately confident
5. A little more than moderately confident
6. Pretty much confident
7. Very confident
Change in Practice Behavior Follow Up Survey

The ultimate goal of the CME activity is to influence participants to apply competencies and critical knowledge learned in the CME activity in their medical practice. Practitioner's self-ratings on a survey measuring perceived change in practice behavior in each of the learning objectives was used as an indicator of actual changes that could ultimately lead to improved patient care and health outcomes. Approximately four weeks after the CME activity, attendees were asked to rate how much they agree with the following statement:

As a result of attending this program I have been able to explain the NAEPP guidelines for the treatment of Asthma.

1. Not Applicable to Me
2. Strongly Disagree
3. Disagree
4. Neutral
5. Agree
6. Strongly Agree

References

Surviving Sepsis: What Is The Latest Consensus?

Challenges in Pulmonology and Critical Care: Update 2008

Cleveland Clinic Weston
Weston, Florida
November 15, 2008

Presenter
R. P. Dellinger, MD
Head, Division of Critical Care Medicine
Cooper University Hospital
Camden, NJ
(Surviving Sepsis Campaign)

Prepared on December 28, 2008
Executive Summary

The topic, Surviving Sepsis: What is the latest consensus?, was presented at the Cleveland Clinic Weston in Weston, Florida on November 15, 2008 as part of a full day CME activity entitled Challenges in Pulmonology and Critical Care: Update 2008.

Worldwide, 18 million cases of severe sepsis occur each year. It is estimated that, worldwide, 1400 people die each day from sepsis, with up to 30% dying within 1 month of diagnosis. Comparatively, more people die from sepsis than from breast or colon cancer. Severe sepsis is a major cause of in-hospital mortality with reported mortality rates of 23–46%.

Surviving sepsis guidelines were updated this past year. These recommendations are intended to provide guidance for the clinician caring for a patient with severe sepsis or septic shock. There was strong agreement among a large cohort of international experts regarding many level 1 recommendations for the best current care of patients with severe sepsis. Evidenced-based recommendations regarding the acute management of sepsis and septic shock are the first step toward improved outcomes for this important group of critically ill patients.

At the conclusion of this CME activity, attendees should be able to:
• Identify the new recommendation in the surviving sepsis campaign
• Describe the latest data on the interventions
• Discuss implementation of the recommendation and best practices
• Discuss methodology to prevent the emergence of resistant organisms
• Discuss treatment of resistant pathogens

Dr. R. P. Dellinger received very high ratings on his effectiveness in delivering this material. Attendee knowledge was assessed using the case vignettes described below with results indicating a statistically significant improvement in pre to post-testing in the first of two questions and a non-statistically significant improvement in knowledge in the second question. Specifically, participants are somewhat better able as a result of this lecture to select appropriate therapy for Sepsis. There was also a dramatic increase in confidence levels in the management of these patients, as reported by conference attendees. Treatment of Sepsis continues to be an important area for future educational programs.

Speaker Effectiveness

Attendees were asked to rate the effectiveness of each speaker in his/her ability to communicate information about the topic being discussed. Effectiveness was rated on a five-point scale, from “Unsatisfactory” to “Excellent.”

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Fair</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.P Dellinger, MD</td>
<td>77%</td>
<td>21%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Speaker Bias

Attendees were also asked to rate the extent to which each speaker presented information in a manner that was fair, balanced, and free of commercial bias on a five-point scale, with one being “Unsatisfactory” and five being “Excellent.”

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Fair</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.P Dellinger, MD</td>
<td>86%</td>
<td>14%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Effect on Learner Knowledge

Case Vignettes, Questions, and Preferred Answers (bolded)

The following questions were delivered through an ARS system to attendees at this CME activity. Pre and post-test responses were collected from attendees who responded to the ARS questions. The graphs below (first bar=pre; second bar=post; preferred answer in bold) display the results of each question below.

A 42 year-old man is admitted to the ICU with fever, leukocytosis, elevated BUN and creatinine, tachycardia, and hypotension. He has an obvious infection of his proximal right upper extremity as demonstrated.
Which one of the following is the most important as to care?

1. Anaerobic antibiotic coverage
2. Ultrasound to rule out axillary vein thrombosis
3. Source control
4. Elevation of arm

P Value: <0.001 – Significant

A 55 year old male with community acquired pneumonia remains hypotensive after adequate fluid resuscitation. Which two adrenergic agents are most appropriate to maintain acceptable blood pressure in a patient with septic shock?

1. Dopamine or epinephrine
2. Epinephrine or vasopressin
3. Vasopressin or norepinephrine
4. Norepinephrine or dopamine

P Value: 0.677 - Not Significant
Effect on Learner Confidence
Confidence in treating patients with this condition was measured during the pre and post-tests. Practitioner confidence 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.

On a scale of 1 to 7 please rate how confident you would be in treating a patient with this condition.
1. Not at all confident
2. Only slightly confident
3. Somewhat confident
4. Moderately confident
5. A little more than moderately confident
6. Pretty much confident
7. Very confident

Change in Practice Behavior Follow Up Survey
The ultimate goal of the CME activity is to influence participants to apply competencies and critical knowledge learned in the CME activity in their medical practice. Practitioner's self-ratings on a survey measuring perceived change in practice behavior in each of the learning objectives was used as an indicator of actual changes that could ultimately lead to improved patient care and health outcomes. Approximately four weeks after the CME activity, attendees were asked to rate how much they agree with the following statement:

As a result of attending this program I am aware of the new recommendations in the Surviving Sepsis campaign and utilize these in my practice.
1. Not Applicable to Me
2. Strongly Disagree
3. Disagree
4. Neutral
5. Agree
6. Strongly Agree
References

Alpha One Anti-trypsin Deficiency

Challenges in Pulmonology and Critical Care: Update 2008

Cleveland Clinic Weston
Weston, Florida
November 15, 2008

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

Prepared on December 28, 2008
Executive Summary
The topic, *Alpha One Anti-trypsin Deficiency: Future of Testing*, was presented at the Cleveland Clinic Weston in Weston, Florida on November 15, 2008 as part of a full day CME activity entitled Challenges in Pulmonology and Critical Care: Update 2008.

AAT deficiency is a relatively common but under-recognized genetic disease. [1] Alpha-1-antitrypsin (AAT) deficiency is one of the most common inherited genetic defects of Caucasians. It is associated with an increased incidence of lung disease. [2] In the past few decades, extensive efforts have been made to understand the genetics and biology of alpha-1 antitrypsin, as well as the pathophysiologic mechanisms in alpha-1 antitrypsin deficiency. To date, however, major gaps and uncertainties remain in our understanding of the disease. The identification of patients and initiation of adequate treatment are important to delay or prevent severe lung damage and associated impairment of the quality of life. [3, 4, 5]

On completion of this program, participants will be able to:
- Review the description and the prevalence of the disease
- Review the novella approaches to increase testing
- Review patient selection for treatment

Dr. Franck Rahaghi received very high ratings on the effectiveness of his presentation. The great majority of attendees rated him as excellent in providing fair, balanced, and unbiased information.

Due to technical problems, no pre or post-test data was collected for this presentation.

Speaker Effectiveness
Attendees were asked to rate the effectiveness of each speaker in his/her ability to communicate information about the topic being discussed. Effectiveness was rated on a five-point scale, from “Unsatisfactory” to “Excellent.”

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Fair</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Franck Rahaghi, MD</td>
<td>72%</td>
<td>24%</td>
<td>4%</td>
<td>1%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Speaker Bias
Attendees were also asked to rate the extent to which each speaker presented information in a manner that was fair, balanced, and free of commercial bias on a five-point scale, with one being “Unsatisfactory” and five being “Excellent.”

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Excellent</th>
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<td>Franck Rahaghi, MD</td>
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References
Advances in Pulmonary Hypertension and Chronic Thromboembolic Disease

Challenges in Pulmonology and Critical Care: Update 2008

Cleveland Clinic Weston
Weston, Florida
November 15, 2008

Presenter
Victor Tapson, MD
Division of Pulmonary and Critical Care Medicine
Duke University Medical Center
Durham, NC

Prepared on December 28, 2008
Executive Summary
The topic, Advances in Pulmonary Hypertension and Chronic Thromboembolic Disease, was presented at the Cleveland Clinic Weston in Weston, Florida on November 15, 2008 as part of a full day CME activity entitled Challenges in Pulmonology and Critical Care: Update 2008.

Chronic Pulmonary Thromboembolic Disease is an important cause of severe pulmonary hypertension, and as such is associated with significant morbidity and mortality. The prognosis of this condition reflects the degree of associated right ventricular dysfunction, with predictable mortality related to the severity of the underlying pulmonary hypertension. In recent years the epidemiology of this condition has been revised considerably. Once considered a rare condition, Chronic Thromboembolic Pulmonary Hypertension (CTEPH) was recently documented to complicate 3.8% of acute pulmonary embolic events. CTEPH is the only cause of severe pulmonary hypertension which is potentially curable without the need to resort to lung transplantation.

In the last few years, significant advances have been made in the field of pulmonary arterial hypertension (PAH). New classes of medicines have been introduced, alternative drug delivery modes for existing medicines have become available and better understanding of disease pathogenesis has suggested possible future therapies. New options lend hope to both patients and providers, but also challenge them as treatment decisions must be made in the context of a complex array of choices. Although individual patient factors may dictate treatment decisions in some cases, several treatment options may be possible in others.

At the conclusion of this activity attendees should be able to:
- Review workup of pulmonary hypertension and CTEPH
- Review the pathophysiology of PAH in Chronic Thromboembolic Disease
- Review therapeutic options in pulmonary hypertension and in PAH CTEPH

Dr. Victor Tapson, the NACE faculty for this program, received very high ratings on his effectiveness in delivering this material. In addition, Dr. Tapson was rated by all attendees as presenting material in a fair, balanced manner without commercial bias. Attendee knowledge was assessed using the case vignettes described below with results indicating a non-statistically significant improvement in the post-testing in the pre and post-test questions presented. There was a dramatic increase in confidence levels in the management of patients with Pulmonary Hypertension and Chronic Thromboembolic Disease, as reported by conference attendees.

Speaker Effectiveness
Attendees were asked to rate the effectiveness of each speaker in his/her ability to communicate information about the topic being discussed. Effectiveness was rated on a five-point scale, from “Unsatisfactory” to “Excellent.”

<table>
<thead>
<tr>
<th>Speaker</th>
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Speaker Bias
Attendees were also asked to rate the extent to which each speaker presented information in a manner that was fair, balanced, and free of commercial bias on a five-point scale, with one being “Unsatisfactory” and five being “Excellent.”

<table>
<thead>
<tr>
<th>Speaker</th>
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Effect on Learner Knowledge Data
Case Vignettes, Questions, and Preferred Answers (bolded)
The following questions were delivered through an ARS system to attendees at the CME activity. Pre and post-test responses were collected from attendees who responded to the ARS questions. The graphs below (first bar=pre; second bar=post; preferred answer in bold) display the results of each question below.

A 40 year old woman is diagnosed with PH, and after an extensive evaluation, no underlying cause can be found. The RV systolic pressure by echo is 86 mm Hg. There is no RV failure by exam. What is your next move?
1. Begin an oral PAH agent (ERA or sildenafil)
2. Begin an IV PAH agent (a prostacyclin)
3. Begin a calcium channel blocker
4. Do a RHC (not yet done)

P Value: 0.071 - Not Significant

Which therapy would you initiate?
1. Bosentan
2. Ambrisentan
3. Sildenafil
4. Tadalafil
5. Any of the above would be appropriate
6. Any of the above except D would be appropriate

P Value: 0.149 - Not Significant

A patient with PH has completed his evaluation and the only finding suggesting a cause is LV dysfunction. The PA pressure = 90/42, RAP = 8, CI= 2.6, PCWP = 18. The LVEF = 55%, with no wall motion abnormalities. There is mild LVH and grade 1 diastolic dysfunction. The 6MW distance is 438 m. His RV is moderately enlarged. What would you do?
1. Treat with PAH therapy
2. Don't treat with PAH therapy because PCWP > 15 mm Hg (does not meet definition for PAH)
Effect on Learner Confidence

Confidence in treating patients with this condition was measured during the pre and post-tests. Practitioner confidence 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.

On a scale of 1 to 7 please rate how confident you would be in treating a patient with this condition.

1. Not at all confident
2. Only slightly confident
3. Somewhat confident
4. Moderately confident
5. A little more than moderately confident
6. Pretty much confident
7. Very confident
Change in Practice Behavior Follow Up Survey

The ultimate goal of the CME activity is to influence participants to apply competencies and critical knowledge learned in the CME activity in their medical practice. Practitioner's self-ratings on a survey measuring perceived change in practice behavior in each of the learning objectives was used as an indicator of actual changes that could ultimately lead to improved patient care and health outcomes.

As a result of attending this program, I have made changes in my practice behavior that enable me to better discuss treatments for Pulmonary Hypertension and Chronic Thromboembolic Disease.

1. Not Applicable to Me
2. Strongly Disagree
3. Disagree
4. Neutral
5. Agree
6. Strongly Agree

References

COPD: What Is The Evidence?

Challenges in Pulmonology and Critical Care: Update 2008

Cleveland Clinic Weston
Weston, Florida
November 15, 2008

Presenter
Charlie Strange, MD
Professor of Pulmonary Medicine
Division of Pulmonary and Critical Care Medicine
Medical University of South Carolina
Charleston, SC

Prepared on December 28, 2008
Executive Summary
The topic, **COPD: What Is The Evidence?**, was presented at the Cleveland Clinic Weston in Weston, Florida on November 15, 2008 as part of a full day CME activity entitled Challenges in Pulmonology and Critical Care: Update 2008.

Estimates from WHO’s Global Burden of Disease and Risk Factors project. show that in 2001, COPD was the fifth leading cause of death in high-income countries, accounting for 3.8% of total deaths, and it was the sixth leading cause of death in nations of low and middle income, accounting for 4.9% of total deaths. In this same report, COPD was also estimated to be the seventh and tenth leading cause of disability-adjusted life years in countries of high income and in those of low or middle income, respectively. Chronic obstructive pulmonary disease (COPD) is a leading cause of morbidity and mortality in countries of high, middle, and low income. COPD is the fourth leading cause of death in the U.S. and is projected to be the third leading cause of death for both males and females by the year 2020. The NHBLI reports 12.1 million adults 25 and older were diagnosed in 2001. It is estimated that there may currently be 16 million people in the United States currently diagnosed with COPD. It is estimated that there may be as many as an additional 14 million or more in the United States still undiagnosed, as they are in the beginning stages and have little to minimal symptoms and have not sought health care yet. About 726,000 hospitalizations for COPD occurred in 2000. More females than males were hospitalized for COPD (404,000 vs. 322,000). The total estimated cost of COPD in 2002 was $32.1 billion. $18 billion were direct costs with $14.1 billion in indirect costs. The scope and importance of COPD in the future of our healthcare services is clear and would call for the review of advances in these fields.

At the conclusion of this CME activity, attendees should be able to:
- Review recent trials in COPD
- Discuss evidence based treatment of COPD
- Discuss measures to improve quality of life of COPD patients

Dr. Charlie Strange received very high ratings on his effectiveness in delivering this material and the vast majority of attendees rated the presentation as fair, balanced, and free of commercial bias. Attendee knowledge was assessed using the case vignettes described below with results indicating a non-statistically significant improvement in the post-testing. There was a small increase in confidence levels in the management of these patients, as reported by conference attendees.

Speaker Effectiveness
Attendees were asked to rate the effectiveness of each speaker in his/her ability to communicate information about the topic being discussed. Effectiveness was rated on a five-point scale, from “Unsatisfactory” to “Excellent.”

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Excellent</th>
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<th>Good</th>
<th>Fair</th>
<th>Unsatisfactory</th>
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<tr>
<td>Charlie Strange, MD</td>
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</tbody>
</table>

Speaker Bias
Attendees were also asked to rate the extent to which each speaker presented information in a manner that was fair, balanced, and free of commercial bias on a five-point scale, with one being “Unsatisfactory” and five being “Excellent.”

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
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<tr>
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Effect on Learner Knowledge
**Case Vignettes, Questions, and Preferred Answers (bolded)**
The following question was delivered through an ARS system to attendees at the CME activity. Pre and post-test responses were collected from attendees who responded to the ARS questions. The graphs below (first bar=pre; second bar=post; preferred answer in bold) display the results of each question below.

Mrs. Jones is a 78 year old white female who is 4 months s/p her first severe COPD exacerbation that required hospitalization. Since discharge she has a daily white productive cough, and dyspnea on exertion at 200 feet ambulation. Spirometry shows FEV1 of 34% predicted, FVC of 69% predicted.
What is optimal therapy?
1. Long acting anticholinergics are necessary for optimal therapy
2. Long acting beta-agonists are necessary for optimal therapy
3. Inhaled corticosteroids are necessary for optimal therapy
4. Nocturnal noninvasive mechanical ventilation is necessary for optimal therapy
5. **Pulmonary rehabilitation is necessary for optimal therapy**


![Graph showing the comparison between pre and post percentages for different therapies](image1)

**P Value: 0.239 - Not Significant**

**Effect on Learner Confidence**

Confidence in treating patients with this condition was measured during the pre and post-tests. Practitioner confidence 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.

On a scale of 1 to 7 please rate how confident you would be in treating a patient with this condition.

1. Not at all confident
2. Only slightly confident
3. Somewhat confident
4. Moderately confident
5. A little more than moderately confident
6. Pretty much confident
7. Very confident

![Graph showing the comparison between pre and post percentages for different confidence levels](image2)

<table>
<thead>
<tr>
<th>Not at all confident</th>
<th>Only slightly confident</th>
<th>Somewhat confident</th>
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Change in Practice Behavior Follow Up Survey
The ultimate goal of the CME activity is to influence participants to apply competencies and critical knowledge learned in the CME activity in their medical practice. Practitioner's self-ratings on a survey measuring perceived change in practice behavior in each of the learning objectives was used as an indicator of actual changes that could ultimately lead to improved patient care and health outcomes. Approximately four weeks after the CME activity, attendees were asked to rate how much they agree with the following statement:

As a result of attending this program I have made changes in my practice behavior that enable me utilize evidenced-based procedures in the treatment of COPD.

- 7. Not Applicable to Me
- 8. Strongly Disagree
- 9. Disagree
- 10. Neutral
- 11. Agree
- 12. Strongly Agree

References
Advances in the Treatment of Sarcoidosis

Challenges in Pulmonology and Critical Care: Update 2008

Cleveland Clinic Weston
Weston, Florida
November 15, 2008

Presenter
Alvin S. Tierstein, MD
Professor of Medicine
Mount Sinai College of Medicine
New York, NY

Prepared on December 28, 2008
Advances in the Treatment of Sarcoidosis
Presenter: Alvin S. Tierstein, MD

Executive Summary
The topic, Advances in the Treatment of Sarcoidosis, was presented at the Cleveland Clinic Weston in Weston, Florida on November 15, 2008 as part of a full day CME activity entitled Challenges in Pulmonology and Critical Care: Update 2008.

Sarcoidosis affects people of all racial and ethnic groups and occurs at all ages, although it usually develops before the age of 50 years, with the incidence peaking at 20 to 39 years.1 The treatment of the disease is complex and multifaceted. Advanced disease involves complex and comprehensive management, that is often not universally mastered.2

At the conclusion of this CME activity, attendees should be able to:
• Consider diagnosis of Sarcoidosis
• Discuss when and who to treat
• Discuss alternatives to steroids in advanced or refractory disease

Dr. Alvin Tierstein received very high ratings on his effectiveness in delivering this material. Attendees perceived his presentation to be fair, balanced, evidenced-based and free of commercial bias. Attendee knowledge was assessed using a case vignette described below with results indicating a statistically significant improvement in the knowledge from pre to post-testing. Specifically, participants were better able as a result of this lecture to recognize the role of different treatments of Sarcoidosis. There was also a very dramatic increase in confidence levels in the management of these patients, as reported by conference attendees.

These notable changes in post-test scores signify a clear gap in knowledge and an unmet need amongst primary care clinicians. It continues to be an important area for future educational programs. Additional programming should continue to educate clinicians on evidence based strategies for treatment of Sarcoidosis.

Speaker Effectiveness
Attendees were asked to rate the effectiveness of each speaker in his/her ability to communicate information about the topic being discussed. Effectiveness was rated on a five-point scale, from “Unsatisfactory” to “Excellent.”

<table>
<thead>
<tr>
<th>Speaker</th>
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Speaker Bias
Attendees were also asked to rate the extent to which each speaker presented information in a manner that was fair, balanced, and free of commercial bias on a five-point scale, from “Unsatisfactory” (biased) and five being “Excellent” (unbiased).

<table>
<thead>
<tr>
<th>Speaker</th>
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<th>Very Good</th>
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Effect on Learner Knowledge
Case Vignettes, Questions, and Preferred Answers (bolded)
The following questions were delivered through an ARS system to attendees at the CME activity. Pre and post-test responses were collected from attendees who responded to the ARS questions. The graphs below (first bar=pre; second bar=post; preferred answer in bold) display the results of each question below.

Mr. M is a 42 year old man with biopsy proven Sarcoidosis who presents with cough and progressive dyspnea. He can no longer run his usual 3 miles/day. Pulmonary function test are FEV1 = 49%, FVC = 60%, FEV1/FEV x 100 = 61%, RV = 142%. Chest x-ray reveals bilateral streaks and a large right upper lobe bulla. He has never been treated for sarcoidosis. Which of the following is correct?

1. Bronchodilators will improve his pulmonary function.
2. Inhaled corticosteroids will improve his pulmonary function.
3. A CT scan of the chest is indicated.
4. A PET or 67 Gallium scan is indicated.

P Value: <0.001 - Significant
Which of the following is correct?

1. His pulmonary function and chest imaging strongly suggest that he has COPD in addition to sarcoidosis.
2. If he had received early treatment for Sarcoidosis, pulmonary fibrosis could have been prevented.
3. **A negative PET or 67Gallium scan strongly militates against systemic corticosteroid therapy.**
4. An elevated SACE is an indication to treat with systemic corticosteroids.

P Value: <0.001 - Significant

If he has active pulmonary granulomas:

1. **Prednisone 30-40 mgm/d is indicated.**
2. Prednisone 60 mgm/d is indicated.
3. Prednisone 30-40 mgm/d plus azathioprine 100-150 mgm/d is indicated.
4. Because he has a stage IV chest x-ray pattern he is likely to have pulmonary hypertension.
Effect on Learner Confidence

Confidence in treating patients with this condition was measured during the pre and post-tests. Practitioner confidence 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.

On a scale of 1 to 7 please rate how confident you would be in treating a patient with this condition.

1. Not at all confident
2. Only slightly confident
3. Somewhat confident
4. Moderately confident
5. A little more than moderately confident
6. Pretty much confident
7. Very confident
Change in Practice Behavior Follow Up Survey

The ultimate goal of the CME activity is to influence participants to apply competencies and critical knowledge learned in the CME activity in their medical practice. Practitioner's self-ratings on a survey measuring perceived change in practice behavior in each of the learning objectives was used as an indicator of actual changes that could ultimately lead to improved patient care and health outcomes. Approximately four weeks after the CME activity, attendees were asked to rate how much they agree with the following statement:

*As a result of attending this program I have been able to consider the diagnosis of Sarcoidosis in my patients and consider treatment options.*

1. Not Applicable to Me
2. Strongly Disagree
3. Disagree
4. Neutral
5. Agree
6. Strongly Agree

### References

Bronchiectasis and Adult Cystic Fibrosis: Diagnosis and Management

Challenges in Pulmonology and Critical Care: Update 2008

Cleveland Clinic Weston
Weston, Florida
November 15, 2008

Presenter
Scott Donaldson, MD
Assistant Professor of Medicine
University of North Carolina
Chapel Hill, NC

Prepared on December 28, 2008
Bronchiectasis and Adult Cystic Fibrosis: Diagnosis and Management
Presenter: Scott Donaldson, MD

Executive Summary
The topic, Bronchiectasis and Adult Cystic Fibrosis: Diagnosis and Management, was presented at the Cleveland Clinic Weston in Weston, Florida on November 15, 2008 as part of a full day CME activity entitled Challenges in Pulmonology and Critical Care: Update 2008.

A recent study by Weycker et al. estimated that there were at least 110,000 adult patients with Bronchiectasis in the USA.1 Significantly, two recent studies have reported that 29–50% of patients with Chronic Obstructive Pulmonary Disease (COPD) have associated Bronchiectasis on CT scanning and such patients had a higher rate of exacerbations of their COPD.2,3 These data suggest that Bronchiectasis remains a common disease.

Several factors complicate the understanding of Bronchiectasis. First, Bronchiectasis blends into the general entity of chronic bronchitis of which the most common cause is smoking. The difficulty of distinguishing chronic bronchitis from Bronchiectasis is illustrated by a recent study in which most patients with Bronchiectasis have had symptoms of chronic bronchitis for more than 20 years before a diagnosis (of Bronchiectasis) was made.4

The care of patients with Cystic Fibrosis (CF) has improved over the past 30 years, and most patients now survive well into adulthood. As a result, clinicians other than pediatricians are more likely than in the past to see CF patients and manage their respiratory, gastrointestinal, pancreatic, and reproductive complications.5 New advances in this field occur continuously and deserve review.6

At the conclusion of this CME activity, attendees should be able to:
1. Discuss pathophysiology of Bronchiectasis
2. Discuss the workup of Bronchiectasis and Cystic Fibrosis
3. Discuss treatment of adult Cystic Fibrosis

Dr. Scott Donaldson received very high ratings on his effectiveness in delivering this material. Attendee knowledge was assessed using the case vignettes described below with results indicating a statistically significant improvement between pre and post-testing in all areas. Specifically, participants are better able as a result of this lecture to utilize appropriate therapies for the treatment of these diseases. There was also a dramatic increase in confidence levels in the management of these patients as reported by conference attendees.

Speaker Effectiveness
Attendees were asked to rate the effectiveness of each speaker in his/her ability to communicate information about the topic being discussed. Effectiveness was rated on a five-point scale, from “Unsatisfactory” to “Excellent.”

<table>
<thead>
<tr>
<th>Speaker</th>
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Speaker Bias
Attendees were also asked to rate the extent to which each speaker presented information in a manner that was fair, balanced, and free of commercial bias on a five-point scale, with one being “Unsatisfactory” and five being “Excellent.”

<table>
<thead>
<tr>
<th>Speaker</th>
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Effect on Learner Knowledge
Case Vignettes, Questions, and Preferred Answers (bolded)
The following questions were delivered through an ARS system to attendees at the CME activity. Pre and post-test responses were collected from attendees who responded to the ARS questions. The graphs below (first bar=pre; second bar=post; preferred answer in bold) display the results of each question below.

Patient is a 37 year old man who has never-smoked and who has had no serious childhood illness. Chronic sputum producer; FEV1 65% (obstructed). Pseudomonas aeruginosa in sputum. Bronchiectasis noted on chest radiograph.
Married x 15 years; no children despite attempts. Normal nutritional status and GI function. Negative family history for lung disease.

Which statement is true?

1. Inhaled rhDNase is likely to improve lung function and reduced exacerbations
2. Absence of significant emphysema on HRCT would rule-out alpha-1 antitrypsin deficiency as cause of Bronchiectasis
3. History of infertility, if related to lung disease, can only be explained by cystic fibrosis
4. Investigation into underlying etiology of Bronchiectasis is warranted, because it may influence future treatment decisions

P Value: <0.001 - Significant

Sixty-eight year old woman presents to you with recent history of hemoptysis and chronic cough intermittently productive of sputum x years. Never smoked; no history of asthma, COPD or other PMH. Mother of 4 healthy children; worked as an accountant. Thin – BMI 18. Sweat chloride obtained at outside hospital was 49 mmol/L. Routine sputum culture revealed aspergillus and S. aureus. HRCT reveals bronchiectatic changes in the middle lobe and lingula, as well as multiple nodules.

Which answer is correct?

1. Elevated sweat chloride is diagnostic of cystic fibrosis probably from a mild mutation
2. Allergic bronchopulmonary aspergillosis should be diagnosed, based upon + culture, Bronchiectasis, and her clinical syndrome
3. Serial AFB smears and cultures are indicated, given clinical/radiographic characteristics
4. Corticosteroids are the treatment of choice for the likely underlying diagnosis, and empiric treatment should be considered

P Value: 0.001 – Significant

Twenty-five year old man with Cystic fibrosis, diagnosed by newborn screening. Has never been hospitalized, and has only received oral antibiotics for “chest colds”. Takes pancreatic enzyme supplements and vitamins. Is followed by his general practitioner. On presentation, is at his symptomatic baseline; has an FEV₁ of 45% of predicted, and is
growing mucoid P. aeruginosa and M. avium complex in his sputum. BMI is 17. His new wife prompted him to make this appointment at your office because they are interested in starting a family.

Which statement is true?

1. It is unlikely this man can conceive a child with his wife without assistance; and risk of them having a child with CF is 50%
2. Hypertonic saline has been shown to reduce incidence of pulmonary exacerbations in CF patients with similar characteristics
3. rhDNase has been shown to improve survival in CF patients with similar characteristics
4. Chronic azithromycin is indicated in this patient, as it has been shown to reduce exacerbations and improve lung function in CF patients with similar characteristics

P Value: 0.039 – Significant

Effect on Learner Confidence

Confidence in treating patients with this condition was measured during the pre and post-tests. Practitioner confidence 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.

On a scale of 1 to 7 please rate how confident you would be in treating a patient with this condition.

1. Not at all confident
2. Only slightly confident
3. Somewhat confident
4. Moderately confident
5. A little more than moderately confident
6. Pretty much confident
7. Very confident
Change in Practice Behavior Follow Up Survey

The ultimate goal of the CME activity is to influence participants to apply competencies and critical knowledge learned in the CME activity in their medical practice. Practitioner's self-ratings on a survey measuring perceived change in practice behavior in each of the learning objectives was used as an indicator of actual changes that could ultimately lead to improved patient care and health outcomes. Approximately four weeks after the CME activity, attendees were asked to rate how much they agree with the following statement:

As a result of attending this program I have made changes in my practice behavior that enable me to better discuss the latest advances in Fibromyalgia and recognize and treat Fibromyalgia and chronic pain.

1. Not Applicable to Me
2. Strongly Disagree
3. Disagree
4. Neutral
5. Agree
6. Strongly Agree

References

APPENDIX

Sample Brochure

Challenges in Pulmonology and Critical Care
Weston, FL 11/15/08
CONTINUING EDUCATION

Application for CME credit has been filed with the American Academy of Family Physicians. Determination of credit is pending.

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 6 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCMCE) through the joint sponsorship of the University of Massachusetts Medical School (UMMS) and the National Association for Continuing Education. The University of Massachusetts Medical School is accredited by the Accreditation Council for Continuing Medical Education (ACCMCE) to provide continuing medical education for physicians. The University of Massachusetts Medical School designates this educational activity for a maximum of 1 AMA PRA Category 1 Credit™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Policy on Faculty and Provider Disclosure: It is the policy of the University of Massachusetts Medical School and the National Association for Continuing Education to ensure fair balance, independence, objectivity and scientific rigor in all activities. All faculty participating in CME activities sponsored by the University of Massachusetts Medical School and the National Association for Continuing Education are required to present evidence-based data, identify and reference off-label product use and disclose all relevant financial relationships with those supporting the activity or others whose products or services are discussed. Faculty disclosure will be provided in the activity materials.

Conference Registration

Register online at www.naceonline.com or this form may be mailed or faxed.

Onsite registration will be accepted provided space is available. Return completed form to:

National Association for Continuing Education (NACE),
7860 Peters Road, F-111, Plantation, Florida 33324

For Registration — Phone Toll Free: 1-866-266-6223 • Fax: 954-723-0353

Personal Information

First Name ______________________ Middle Initial _____ Last Name______________________________
Degree _________________________________________ License Number___________________________
Mailing Address___________________________________________________________________________
City_____________________________________ State ______ Zip Code/Postal Code ________________
Day Phone Number  _________________________ Eve. Phone Number ___________________________
Fax ______________________________ Email Address (Required) ______________________________

Check one:  ☐ Physician  ☐ Physician Assistant  ☐ Nurse Practitioner  ☐ Nurse
☐ Other ____________________________________________

There is no charge for this activity.

Attendees must register in advance. Reservations for this program will be taken on a first come, first reserved basis. Space is limited so please register early. You will receive a confirmation as to your registration by mail or email. This confirmation will serve as your admission ticket for the program.

EARN CONTINUING MEDICAL EDUCATION CREDITS

Challenges in Pulmonary and Critical Care: 2008

November 15, 2008
Cleveland Clinic Florida
Jagelman Conference Center • 2950 Cleveland Clinic Blvd
Weston, Florida

There is No Charge for this Symposium.
PROGRAM SUMMARY

The focus of this CME activity is to provide an update in the prevention, diagnosis, and management of pulmonary disease to pulmonologists, hospitalists, and other health care providers who treat patients with pulmonary diseases. Current findings in pulmonary research in such topics as COPD, sepsis, asthma, bronchiectasis and adult cystic fibrosis, sarcoidosis, pulmonary hypertension, and alpha one anti-trypsin deficiency will be presented. Clinicians will benefit from learning new research findings that could lead to improved patient care and safety.

In planning this CME activity, the National Association for Continuing Education (NACE) performed a needs assessment. A literature search was conducted, national guidelines were reviewed, survey data was analyzed, and experts in each therapeutic area were consulted to determine gaps in practitioner knowledge, competence or performance. Learning objectives (see below), linked to identified gaps, were developed and will be addressed by each presenter.

This multidisciplinary program will utilize a variety of educational techniques incorporating the various aspects of Adult Learning Principles. There will be emphasis on audience participation utilizing interactive case-based presentations to deliver educational material. Participants will be asked to engage in pre and post testing to collect data for outcome studies and to uncover unmet needs for future programming.

Each participant will be provided with a syllabus containing presentations, clinical tools, and practical guidelines at the start of the program to be used for future reference.

LEARNING OBJECTIVES

At the conclusion of this CME activity, attendees will be able to:

- Discuss the philosophy of the new Asthma recommendations; Discuss the specific changes in the EPR
- Identify the new recommendation in the surviving sepsis campaign; Describe the latest data on the interventions; Discuss implementation of the recommendation and best practices; Discuss methodology to prevent the emergence of resistant organisms; Discuss treatment of resistant pathogens
- Describe the prevalence of the alpha one anti-trypsin deficiency; Identify the novel approaches to increase testing; Discuss patient selection for treatment
- Explain the pathophysiology of Chronic Thromboembolic Disease; Describe workup of pulmonary hypertension and CTEPH; List therapeutic options in CTEPH and pulmonary hypertension
- Discuss diagnosis of Sarcoidosis; Discuss when and who to treat; Discuss alternatives to steroids in advanced or refractory disease
- Describe recent trials in COPD; Discuss evidence based treatment of COPD; Discuss measures to improve quality of life of COPD patients
- Discuss pathophysiology of Bronchiectasis; Discuss the workup of bronchiectasis and Cystic Fibrosis; Discuss treatment of adult Cystic Fibrosis
- Discuss common medical legal aspects of medicine in Florida; Describe how recent legislative changes may affect practice and how to prepare for it; Identify methods to avoid common mistakes when dealing with the Florida Statutes

FACULTY

R. P. Dellinger, MD
Head, Division of Critical Care Medicine
Cooper University Hospital, Camden, NJ
(Surviving Sepsis Campaign)

Scott Donaldson, MD
Assistant Professor of Medicine
University of North Carolina, Chapel Hill, NC

Frank Eidelman, MD
Chairman of Department of Allergy and Immunology
Cleveland Clinic Florida, Weston, FL

Eduardo Oliveira, MD
Chair, Division of Medicine
Pulmonary and Critical Care Department
Cleveland Clinic Florida, Weston, FL

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

Charlie Strange, MD
Professor of Pulmonary Medicine
Division of Pulmonary and Critical Care Medicine
Medical University of South Carolina
Charleston, SC

Victor Tapson, MD
Division of Pulmonary and Critical Care Medicine
Duke University Medical Center, Durham, NC
(ACCP Consensus Statement on Antithrombotic Therapy)

Alvin S. Teirstein, MD
Professor of Medicine, Mount Sinai
College of Medicine, New York, NY
(Master Clinician, Mt. Sinai Sarcoidosis Laboratories)

AGENDA

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<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>7:30 - 8:00 AM</td>
<td>Continental Breakfast and Registration</td>
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<tr>
<td>8:00 - 8:10 AM</td>
<td>Welcome Remarks and Pre-Test</td>
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<tr>
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<td>Franck Rahaghi, MD</td>
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<tr>
<td>8:10 - 9:00 AM</td>
<td>Asthma: Applying the New Guidelines</td>
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<td>Frank Eidelman, MD</td>
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<tr>
<td>9:00 - 9:50 AM</td>
<td>Surviving Sepsis: What Is The Latest Consensus?</td>
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<td>R. P. Dellinger, MD</td>
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<td>9:50 - 10:20 AM</td>
<td>Break/Vendor Area</td>
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<tr>
<td>10:20 - 11:10 AM</td>
<td>Alpha one Anti-trypsin Deficiency: Future of testing</td>
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<td></td>
<td>Franck Rahaghi, MD</td>
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<tr>
<td>11:10 - 12:00 PM*</td>
<td>Advances in Pulmonary Hypertension and Chronic Thromboembolic Disease</td>
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<td></td>
<td>Victor Tapson, MD</td>
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<tr>
<td>12:00 - 1:10 PM</td>
<td>Lunch Break/Vendor Area</td>
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<tr>
<td>1:10 - 2:00 PM</td>
<td>Advances in the Treatment of Sarcoidosis</td>
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<td>Alvin S. Teirstein, MD</td>
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<td>2:00 - 2:50 PM</td>
<td>COPD: What Is The Evidence?</td>
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<td>Charlie Strange, MD</td>
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<td>2:50 - 3:10 PM</td>
<td>Break/Vendor Area</td>
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<tr>
<td>3:10 - 4:00 PM</td>
<td>Bronchiectasis and Adult Cystic Fibrosis: Diagnosis and Management</td>
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<td>Scott Donaldson, MD</td>
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<tr>
<td>4:00 - 4:50 PM</td>
<td>Medical-Legal and Regulatory Aspects of Medicine: What You Need To Know</td>
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<td>Eduardo Oliveira, MD</td>
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<td>4:50 - 5:00 PM</td>
<td>Closing Remarks and Post-Test</td>
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<td>Franck Rahaghi, MD</td>
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COURSE DIRECTOR

Franck Rahaghi, MD, MHS, FCCP

ACTIVITY DIRECTOR

Michelle Frisch, MPH

SUPPORTERS

This program was supported through educational grants from:

United Therapeutics Corporation
Gilead Sciences
Talecris
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CSL Behring
Genentech
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SEPRACOR
ACTELION
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