Outcome Report
Alzheimer’s Dementia: Evaluation of Therapeutic Options

NATIONAL ASSOCIATION FOR CONTINUING EDUCATION
Emerging Challenges In Primary Care: 2009
Presented at 3 Locations
Atlanta, GA • Hollywood, FL • Long Beach, CA

Report Date: 1/7/10

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National Association for Continuing Education
7860 Peters Road, Suite F-111
Plantation, FL 33324
www.naceonline.com
(954) 723-0057
Course Director

Gregg Sherman, MD
Family Practice
Margate Medical Associates
Margate, FL

Activity Planning Committee
Gregg Sherman, MD
Harvey C. Parker, Ph.D., CCMEP
Michelle Frisch, MPH, CCMEP
Alan Goodstat, LCSW

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 7 AMA PRA Category 1 Credits (number of credits varies with agenda in each city).*

* This applies to the full day CME activity entitled Emerging Challenges in Primary Care

Commercial Support

The Emerging Challenges in Primary Care: Update 2009 series of CME activities were supported through educational grants or donations from the following companies:

Abbott Laboratories Inc.
Amylin Pharmaceuticals
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Eli Lilly and Company
Forest Research Institute
GlaxoSmithKline
Medtronic
Purdue Pharma LP
Solvay Pharmaceuticals
Trans1 Inc.

Alzheimer’s Dementia: Evaluation Therapeutic Options was supported through an educational grant or donation from Forest Research Institute.
# Cities and Dates

Emerging Challenges in Primary Care: Update 2009
Conference Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 25, 2009</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>May 2, 2009</td>
<td>Columbus, Ohio</td>
</tr>
<tr>
<td>May 16, 2009</td>
<td>Raleigh, North Carolina</td>
</tr>
<tr>
<td>June 13, 2009</td>
<td>Denver, Colorado</td>
</tr>
<tr>
<td>*August 15, 2009</td>
<td>Atlanta, Georgia</td>
</tr>
<tr>
<td>August 29, 2009</td>
<td>Nashville, Tennessee</td>
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<tr>
<td>September 26, 2009</td>
<td>Lexington, Kentucky</td>
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<tr>
<td>*October 3, 2009</td>
<td>Hollywood, Florida</td>
</tr>
<tr>
<td>October 10, 2009</td>
<td>Indianapolis, Indiana</td>
</tr>
<tr>
<td>October 24, 2009</td>
<td>Tampa, Florida</td>
</tr>
<tr>
<td>November 7, 2009</td>
<td>Birmingham, Alabama</td>
</tr>
<tr>
<td>*November 14, 2009</td>
<td>Long Beach, California</td>
</tr>
</tbody>
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* Alzheimer’s Dementia: Evaluation of Therapeutic Options presented in select 3 locations

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# Titles of Presentations

*Given in all 12 cities

- Case Studies in Diabetes Management: Individualizing Therapy *
  Patrick Boyle, MD and Mark Stolar, MD and Barry McLean, MD

- Residual Cardiovascular Risk in Diabetes: Beyond LDL-C *
  Alexandre C. Ferreira, MD, FACC

- COPD - Enhancing Recognition and Improving Outcomes *
  Louis Kuritzky, MD, Fernando J. Martinez, MD, MS, and MeiLan K. Han, MD, MS

- Depression - We Can Do Better *
  John Tomkowiak, MD MOL and Benoit Dubé, MD, FRCP\(\text{C}\)

- What You and Your Patients Need to Know About the Advances in Migraine Management *
  Louis Kuritzky, MD and Paul Winner, DO, FAAN

- Advances in Minimally Invasive Spine Surgery: An Evidence Based Approach *
  W. B. Rodgers, MD and Curtis S. Cox, MD

- Alzheimer’s Dementia: Evaluation of Therapeutic Options
  Walter C. Martinez, MD, FAAN

- Case Studies in Chronic Pain Management
  Rick Chavez, MD and Howard A. Heit, MD, FACP, FASAM

- Psoriasis: Update for Primary Care Physicians
  Brad P. Glick, DO, MPH and Paolo Romanelli, MD

- Contraceptive Therapy Update
  Anita Nelson, MD
Levels of Evaluation

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

- **Level 1:** Participation—# of participants
- **Level 2:** Satisfaction—The degree to which the expectations of the participants about the setting and delivery of the CME activity were met.
- **Level 3:** Learning—Changes in knowledge, skills, and/or attitudes of the participants: the development of competency
- **Level 4:** Performance—Changes in practice behavior as a result of the application of what was learned

Level 1: Participation

- 417 attendees in 3 cities
- 71% Physicians; 20% NPs or PAs; 5% RNs; 4% Other
- Over 80% in community-based practice
- 81% PCPs, 1% Endocrinologists; 2% Cardiologists; 1% Pulmonologists; 1% OBGYN; 14% Other or did not respond
- 95% provide direct patient care

Did we reach the right audience?  Yes!
Level 2: Satisfaction

• 88% rated the activity as very good to excellent
• 98% indicated the activity improved their knowledge
• 95% stated that they learned new strategies for patient care
• 88% 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! Data was collected across all 12 cities for the complete Emerging Challenges in Primary Care program.

Level 2: Satisfaction

Upon completion of this activity, I can now –
Appreciate the need to recognize and treat Alzheimer's dementia earlier in the disease process; Treat the psychiatric complications that may occur as part of Alzheimer's dementia; Attempt to improve not only cognition and memory, but to improve quality of life for the patient and family; Employ evidence-based clinical practice guidelines when treating patients with Alzheimer's dementia:

Did learners indicate they achieved the learning objectives? Yes! 99% believed they did. Data was collected across 3 cities.
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.  

• **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.


Alzheimer’s Dementia: Evaluation of Therapeutic Options

Faculty

Walter C. Martinez, MD, FAAN
Director, Memory Disorder Center
Director, Premiere Research Institute
Associate Clinical Professor of Neurology at Nova Southeastern University, Ft. Lauderdale, FL

Learning Objectives

• Appreciate the need to recognize and treat Alzheimer’s dementia earlier in the disease process
• Treat the psychiatric complications that may occur as part of Alzheimer’s dementia
• Attempt to improve not only cognition and memory, but to improve quality of life for the patient and family
• Employ evidence-based clinical practice guidelines when treating patients with Alzheimer’s Dementia
Key Findings
Alzheimer’s Dementia: Evaluation of Therapeutic Options

Knowledge/Competence
Learners demonstrated significant improvement in their answers from pre to post-testing on all three case-based questions regarding methods to diagnose and treat Alzheimer’s Dementia (AD).

Confidence
39% of learners rated themselves as moderately to very confident in diagnosing and managing patients with AD before the education and 77% after the education.

Intent to Perform
Learners stated that they were very likely (68%) to somewhat likely (18%) 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 91% 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 with respect to AD.

Responses to Critical Knowledge and Case-Based Questions
Alzheimer’s Dementia: Evaluation of Therapeutic Options

A.M. is a 75 year old lady with a diagnosis of dementia, Alzheimer’s type. Her general physical as well as neurological examinations are unremarkable. MRI shows evidence of atrophy and small blood vessel ischemic changes. Bloodwork reveals normal TSH and B12. Mini Mental Status Exam score is 21/30. The stage of her dementia is:

<table>
<thead>
<tr>
<th>Stage</th>
<th>Pre %</th>
<th>Post %</th>
</tr>
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<tbody>
<tr>
<td>Mild</td>
<td>37</td>
<td>62</td>
</tr>
<tr>
<td>Moderate</td>
<td>51</td>
<td>34</td>
</tr>
<tr>
<td>Severe</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>None of the above</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

Best answer p < .05
The patient was started on donepezil 5 mg and after four weeks the dosage was increased to 10 mg to be taken at bedtime. Her husband called and stated the patient is having nightmares and vivid dreams. What would you do?

Responses to Critical Knowledge and Case-Based Questions
Alzheimer’s Dementia: Evaluation of Therapeutic Options

Responses to Critical Knowledge and Case-Based Questions (cont)
Alzheimer’s Dementia: Evaluation of Therapeutic Options

Two years later the patient is slowly getting worse; is still taking 10 mg of donepezil. Mini mental status exam is 18/30. At this point, the next best step is to:
Changes in Confidence from Pre to Post-Testing
Alzheimer’s Dementia: Evaluation of Therapeutic Options

On a scale of 1 to 5 please rate how confident you would be in treating patients with Alzheimer’s Dementia.

<table>
<thead>
<tr>
<th>Rating</th>
<th>Pre %</th>
<th>Post %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all confident</td>
<td>35</td>
<td>7</td>
</tr>
<tr>
<td>Slightly confident</td>
<td>26</td>
<td>16</td>
</tr>
<tr>
<td>Moderately confident</td>
<td>24</td>
<td>30</td>
</tr>
<tr>
<td>Pretty much confident</td>
<td>10</td>
<td>29</td>
</tr>
<tr>
<td>Very confident</td>
<td>5</td>
<td>18</td>
</tr>
</tbody>
</table>

Intention to Change Practice Behavior and Implement Learning
Alzheimer’s Dementia: Evaluation of Therapeutic Options

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

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>Pre %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very likely</td>
<td>53</td>
</tr>
<tr>
<td>Somewhat likely</td>
<td>26</td>
</tr>
<tr>
<td>Unlikely</td>
<td>5</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>17</td>
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</table>
Self-Reported Changes in Practice Behavior Four Weeks After the Activity
Alzheimer’s Dementia: Evaluation of Therapeutic Options

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

Implementation of Learning Objectives at 4 Week Follow Up

Learning Objectives: Appreciate the need to recognize and treat Alzheimer’s dementia earlier in the disease process; Treat the psychiatric complications that may occur as part of Alzheimer’s dementia; Attempt to improve not only cognition and memory, but to improve quality of life for the patient and family; Employ evidence-based clinical practice guidelines when treating patients with Alzheimer’s Dementia

Discussion and Implications
Alzheimer’s Dementia: Evaluation of Therapeutic Options

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

Dr. Walter Martinez, 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 in nearly all areas. Specifically, participants are better able as a result of this lecture to: recognize the staging of Alzheimer’s dementia, and understand the impact of combination therapy with a cholinesterase inhibitor and the N-methyl-D-aspartate receptor antagonist (NMDA) memantine. Attendees were less comfortable recognizing effective dosing strategies to minimize complications of cholinesterase inhibition.

The 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 prevention of dementia, recognizing and diagnosing Alzheimer’s disease, the benefit and timing of combination therapy and strategies to reduce adverse effects of pharmacotherapy.