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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 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

These activities were supported through educational grants or donations from the following companies:

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

Residual Cardiovascular Risk in Diabetes: Beyond LDL-C

was supported through an educational grant or donation from Solvay Pharmaceuticals.
Cities and Dates

Emerging Challenges in Primary Care: Update 2009
Conference Schedule

April 25, 2009       September 26, 2009
St. Louis, Missouri  Lexington, Kentucky

May 2, 2009          October 3, 2009
Columbus, Ohio       Hollywood, Florida

May 16, 2009        October 10, 2009
Raleigh, North Carolina  Indianapolis, Indiana

June 13, 2009       October 24, 2009
Denver, Colorado     Tampa, Florida

August 15, 2009     November 7, 2009
Atlanta, Georgia     Birmingham, Alabama

August 29, 2009     November 14, 2009
Nashville, Tennessee  Long Beach, California

Titles of Presentations

*Given in all 12 cities

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

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 MMelLan K. Han, MD, MS

Depression - We Can Do Better *
John Tomkowski, MD MOL and Benoit Dubé, MD, FRCPC

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 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**

- 1404 attendees in 12 cities
- 66% Physicians; 23% NPs or PAs; 2% RNs; 9% Other
- Over 70% in community-based practice
- 73% PCPs, 1% Endocrinologists; 2% Cardiologists; 1% Pulmonologists; 1% OBGYN; 14% Other
- 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.

Level 2: Satisfaction

Upon completion of this activity, I can now –
Recognize the prevalence of cardiovascular events in diabetes despite achieving LDL goals; Recognize therapeutic guideline recommendations for patients with Diabetic Dyslipidemia; Describe the impact of HDL-C and Triglycerides on cardiovascular risk in the diabetic population; Utilize combination therapy more comfortably and appropriately in patients with mixed dyslipidemia; More effectively communicate with patients about Cardiovascular Risk and treatment goals

Did learners indicate they achieved the learning objectives? Yes! 99% believed they did. Data was collected across 12 cities.
Outcome Study Methodology

Goal
To determine the effect of 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.


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Residual Cardiovascular Risk in Diabetes:
Beyond LDL-C

Faculty
Alexandre C. Ferreira, MD, FACC
Clinical Chief of Cardiology: Jackson Health Systems
Associate Professor of Medicine
University of Miami
Miller School of Medicine
Miami, FL

Learning Objectives

• Recognize the prevalence of cardiovascular events in diabetes despite achieving LDL goals;
• Recognize therapeutic guideline recommendations for patients with Diabetic Dyslipidemia
• Describe the impact of HDL-C and Triglycerides on cardiovascular risk in the diabetic population
• Utilize combination therapy more comfortably and appropriately in patients with mixed dyslipidemia
• More effectively communicate with patients about Cardiovascular Risk and treatment goals
Key Findings
Residual Cardiovascular Risk in Diabetes: Beyond LDL-C

<table>
<thead>
<tr>
<th>Knowledge/Competence</th>
<th>Learners demonstrated significant improvement in competency in all three pre- and post-test case-based questions regarding the management of CV risk in patients with Diabetes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence</td>
<td>78% of learners rated themselves as moderately to very confident in managing CV risk in patients with Diabetes before the education and 93% after the education.</td>
</tr>
<tr>
<td>Intent to Perform</td>
<td>Learners stated that they were very likely (78%) to somewhat likely (14%) to implement strategies learned at this session in their practice</td>
</tr>
<tr>
<td>Change of Practice Behavior</td>
<td>On a follow-up surveys completed 4 weeks after the activity 95% of learners who responded reported that they strongly agree that they have implemented changes in their practice based the information they learned in the CME activity with respect to managing cardiovascular risks in Diabetes.</td>
</tr>
</tbody>
</table>

Responses to Critical Knowledge and Case-Based Questions
Residual Cardiovascular Risk in Diabetes: Beyond LDL-C

A 54 year old female with a history of type II DM, HTN and coronary artery disease presented to you 6 months after having been hospitalized with an episode of angina. During that hospitalization she underwent coronary angiography and a successful uncomplicated 3-vessel coronary bypass surgery. She is presently asymptomatic.

Medications:
- ASA 162 mg daily
- Metformin 1,000 mg twice a day
- Ramipril 10 mg daily

Physical examination
- BP=123/75, P= 70, afebrile
- Weight= 180 lb; Height: 5’5”; BMI: 30
- General physical exam was unremarkable

Metabolic profile
- TC=182 mg/dl; TGC=250 mg/dl; HDL-C= 32 mg/dl; LDL-C=100 mg/dl
- Fasting glucose= 113 mg/dl; HbA1c= 6.2
Responses to Critical Knowledge and Case-Based Questions (cont)
Residual Cardiovascular Risk in Diabetes: Beyond LDL-C

According to the National Cholesterol Education Program (NCEP ATP III guidelines) the initial drug therapy for this patient's dyslipidemia should be?

![Graph showing percentages of different treatments]

The patient was started on simvastatin 40 mg and the following lipid profile was obtained: LDL-C= 68 mg/dl; HDL= 35 mg/dl; TGC=200 mg/dl. You are considering adding a second drug to improve combined lipid abnormality. Which of the drugs below is most likely to be associated with the greatest risk of rhabdomyolysis?

- Omega-3 fish oil
- Fibrate
- Statin
- Niacin

![Graph showing percentages of different treatments]

According to the 2008 ADA/ACC consensus statement, the highest risk patient with DM such as this patient, in addition to having an LDL-C goal < 70 mg/dl and a non-HDL-C goal <100 mg/dl, should have:

- Apo B < 80 mg/dl
- TGC < 150 mg/dl
- HDL-C > 40 mg/dl
- VLDL-C < 30 mg/dl

![Graph showing percentages of different treatments]
Changes in Confidence from Pre to Post-Testing
Residual Cardiovascular Risk in Diabetes: Beyond LDL-C

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

<table>
<thead>
<tr>
<th></th>
<th>Not at all confident</th>
<th>Slightly confident</th>
<th>Moderately confident</th>
<th>Pretty much confident</th>
<th>Very confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre %</td>
<td>8</td>
<td>14</td>
<td>33</td>
<td>29</td>
<td>16</td>
</tr>
<tr>
<td>Post %</td>
<td>1</td>
<td>6</td>
<td>20</td>
<td>38</td>
<td>35</td>
</tr>
</tbody>
</table>

Intention to Change Practice Behavior and Implement Learning
Residual Cardiovascular Risk in Diabetes: Beyond LDL-C

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

Percent

- Very likely: 78
- Somewhat likely: 14
- Unlikely: 2
- Not Applicable: 6
Self-Reported Changes in Practice Behavior Four Weeks After the Activity
Residual Cardiovascular Risk in Diabetes: Beyond LDL-C

Learning Objectives:
- Recognize the prevalence of cardiovascular events in diabetes despite achieving LDL goals
- Recognize therapeutic guideline recommendations for patients with Diabetic Dyslipidemia
- Describe the impact of HDL-C and Triglycerides on cardiovascular risk in the diabetic population
- Utilize combination therapy more comfortably and appropriately in patients with mixed dyslipidemia
- More effectively communicate with patients about Cardiovascular Risk and treatment goals

Discussion and Implications
Residual Cardiovascular Risk in Diabetes: Beyond LDL-C

The need for continued education in the evaluation and treatment of residual cardiovascular risk in Diabetes after addressing LDL levels was demonstrated based on literature reviews and surveys completed prior to the conference series.

Dr. Ferreira, the NACE faculty for this program, received very 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 all areas. Specifically, participants are better able as a result of this lecture to recognize appropriate initial lipid lowering therapy for patients and to recognize the risk of rhabdomyolysis associated with gemfibrozil therapy. Most significantly, participants recognize the importance of Apo-B levels in cardiovascular risk assessment. There was a dramatic increase in confidence levels among program attendees and an indication of changes in practice behaviors as a result of this program.

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 the persistent cardiovascular risk in patients with Diabetes and elevated Triglyceride /Apo-B levels, and low HDL-C, as well as diagnostic strategies to stratify that risk.