Cardiovascular Disease and Hypertriglyceridemia: The Evolving Link

Final Outcome Report for 1 Live Activity
Amarin • January 22, 2020
Executive Summary

- This activity focused on recognizing the association between hypertriglyceridemia and atherosclerotic cardiovascular disease (ASCVD), the role of omega-3 fatty acids, and how to recognize patients that would benefit from therapy.

- 223 attendees in multiple professional specialties were reached in this program.

- Improvement across all learning domains was noted ranging from 11% to 689%.

- Overall, the program improved the ability of learners to recognize when triglyceride lowering is appropriate, and the role of omega-3 fatty acids.

Persistent Educational Gaps

- Though improvements were observed, learners demonstrated some score slippage on the PCA indicating persistent gaps in the several areas including:
  - The role and timing of adding icosapent ethyl
  - Proatherogenic changes associated with high triglyceride levels
  - Clinical evidence use of icosapent ethyl from the REDUCE-IT trial

The post-test scores, and improvement in confidence regarding the management of patients with hypertriglyceridemia and atherosclerotic cardiovascular disease, signifies a clear gap in knowledge and an unmet need among clinicians. It continues to be an important area for future educational programs.

*These numbers represent the total number of attendees, irrespective of assessment participation
Course Director

Karol E. Watson, MD, PhD
Professor of Medicine/Cardiology
Co-director, UCLA Program in Preventive Cardiology
Director, UCLA Barbra Streisand Women’s Heart Health Program
Los Angeles, CA

Activity Planning Committee

Gregg Sherman, MD
Michelle Frisch, MPH, CCMEP
Stephen Webber
Sandy Bihlmeyer M.Ed
Alan Goodstat, LCSW
Sheila Lucas, CWEP
Deborah Paschal, CRNP

Faculty

Karol E. Watson, MD, PhD
Professor of Medicine/Cardiology
Co-director, UCLA Program in Preventive Cardiology
Director, UCLA Barbra Streisand Women’s Heart Health Program
Los Angeles, CA
Commercial Support

The Emerging Challenges in Primary Care: Update 2019 series of CME activities were supported through educational grants or donations from the following companies:

- Amarin
- Gilead Sciences, Inc.
- AstraZeneca Pharmaceuticals LP
- Novo Nordisk
- Avenir
- Shire
- Amgen Inc.
- Grifols
- Sanofi US and Regeneron Pharmaceuticals
Curriculum Overview

1 Accredited Live Regional Symposia
May 18, 2019

Clinical Highlights eMonograph - eMonograph containing key teaching points from the CME Activity was distributed 1 week after the meeting to all attendees.

Speaker

Karol Watson, MD, PhD
Professor of Medicine/Cardiology
Co-director, UCLA Program in Preventive Cardiology
Director, UCLA Barbra Streisand Women’s Heart Health Program
David Geffen School of Medicine at UCLA
John Mazziotta, M.D., Ph.D. Term Chair in Medicine.
Learning Objectives

1. Recognize the association between hypertriglyceridemia and atherosclerotic cardiovascular disease (ASCVD).

2. Discuss the different biologic properties of omega-3 fatty acids and their impact on lipid levels.

3. Identify patients who might benefit from triglyceride lowering.

4. Utilize evidence-based approaches to manage patients with hypertriglyceridemia.
Levels of Evaluation

Consistent with the policies of the ACCME, NACE evaluates the effectiveness of all CME activities using a systematic process based on Moore’s model. This outcome study reaches Level 5.

- **Level 1: Participation**
- **Level 2: Satisfaction**
- **Level 3: Declarative and Procedural Knowledge**
- **Level 4: Competence**
- **Level 5: Performance**
- **Level 6: Patient Health**
- **Level 7: Community Health**

Level 1: Demographics & Patient Reach
Level 1: Participation

231 total attendees

94% Provide direct patient care
Level 1: Demographics

Patient Care Focus: 94%

Profession

- MD: 48.60%
- DO: 1.87%
- NP: 42.99%
- PA: 4.67%
- RN: 1.87%
- Other: 0.00%

Years in Practice

- <5: 21.37%
- 5-10: 8.55%
- 11-20: 11.11%
- >20: 58.97%

Patients seen each week, in any setting:

- <25: 30.77%
- 25-50: 29.06%
- 51-75: 19.66%
- >75: 20.51%
Level 2: Satisfaction

- 99% rated the activity as excellent
- 99% indicated the activity improved their knowledge
- 97% stated that they learned new and useful strategies for patient care
- 91% said they would implement new strategies that they learned
- 100% said the program was fair-balanced and unbiased
Confidence Assessment

Please rate your confidence in your ability to identify patients for whom triglyceride-lowering therapy may be appropriate.

(Learning Objective 3,4)

Confidence Assessment

<table>
<thead>
<tr>
<th>Rating</th>
<th>Pre: 116</th>
<th>PCA: 43</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all confident</td>
<td>10%</td>
<td>2%</td>
</tr>
<tr>
<td>Slightly confident</td>
<td>18%</td>
<td>12%</td>
</tr>
<tr>
<td>Moderately confident</td>
<td>36%</td>
<td>44%</td>
</tr>
<tr>
<td>Pretty much confident</td>
<td>28%</td>
<td>37%</td>
</tr>
<tr>
<td>Very confident</td>
<td>8%</td>
<td>5%</td>
</tr>
</tbody>
</table>
64-y/o Hispanic woman with a history of NSTEMI 6 months ago

- Lipids: LDL-C 68 mg/dL, HDL-C 54 mg/dL, triglycerides 246 mg/dL
- Meds: rosuvastatin 40 mg qd, ezetimibe 10 mg qd, lisinopril 20 mg qd, metoprolol succinate 100 mg qd, and aspirin 81 mg qd.
- Patient reports adherence to low-fat diet and 30 minutes of walking daily.

Based on current evidence, what might be appropriate at this time? (Learning Objective 1, 3, and 4)

P Value: >.05

<table>
<thead>
<tr>
<th>Pre-Post Change</th>
<th>Pre-PCA Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>689%</td>
<td>389%</td>
</tr>
</tbody>
</table>

Competence

Pre: 86 Post: 132 PCA: 43

Add niacin
Add fibrate
Add icosapent ethyl
Make no changes to medical therapy; patient is at guideline-recommended target
Assess for secondary causes of hypertriglyceridemia

Initiate fibrate and omega-3 fatty acids EPA and/or DHA

Recommend lifestyle interventions, including low-fat diet and daily exercise

Consider high triglyceride levels a risk enhancer favoring intensification of statin therapy

55-y/o overweight, sedentary man with a history of hypertension presents for checkup.

- Workup: LDL-C 126 mg/dL, HDL 38 mg/dL, triglycerides 308 mg/dL, fasting BG 110 mg/dL, BP 136/84 mmHg
- Current meds: lisinopril 20 mg qd, simvastatin 10 mg qd

According to 2018 AHA/ACC guidelines and based on the patient’s triglyceride level, all of the following should be considered, EXCEPT:

(Learning Objective 1, 3, and 4)
High triglyceride levels are associated with all of the following pro-atherogenic changes, EXCEPT:

(Learning Objective 1)

P Value: <0.05

N= Pre: 116  Post: 128  PCA: 43
Which of the following lipid-lowering agents has been shown to reduce triglyceride levels, but increase LDL-C?

(Learning Objective 2)

P Value: <0.05
The REDUCE-IT trial reported all of the following significant outcomes with icosapent ethyl compared to placebo, EXCEPT:

(Learning Objective 1, 2, 3)

Pre: 107  Post: 133  PCA: 43

N=  

Higher rate of diarrhea with icosapent ethyl

~25% reduction in combined primary endpoint

~25% reduction in secondary endpoint (CV death, MI, stroke)

Similar reductions in secondary endpoint in both women and men

P Value: <0.05
Please select the specific areas of skills, or practice behaviors, you have improved regarding the treatment of patients with high triglycerides since this CME activity. (Select all that apply.)

N=43

- Disease state awareness: 67%
- Patient education: 45%
- Diagnostic evaluation: 52%
- Screening protocols: 43%
- Pharmacotherapy: 69%
What specific barriers have you encountered that may have prevented you from successfully implementing strategies for patients with high triglycerides since this CME activity? (Select all that apply) N=43

- Patient adherence/compliance: 39%
- Medication costs: 39%
- Insurance/financial issues: 39%
- Formulary restrictions: 32%
- Time constraints: 10%
Persistent Educational Gaps After 4 Weeks

- Appropriate patients to consider adding icosapent ethyl to address elevated triglycerides
- The role of fibrate therapy in triglyceride lowering according to the 2018 AHA/ACC guidelines
- The results of the REDUCE-IT trail and its clinical significance
- Proatherogenic changes associated with high triglycerides
Participant Educational Gains

- Increased recognition of when to add icosapent ethyl to treat hypertriglyceridemia in a patient with ASCVD
- Greater awareness of the 2018 ACC/AHA guideline recommendation on the management of triglycerides
- Increased knowledge of the proatherogenic changes associated with high triglycerides
- Improved awareness of the clinical impact demonstrated in the REDUCE-IT trial
Key Take-Home Points

Learners reported improved confidence in their ability to identify patients for whom triglyceride-lowering therapy may be appropriate.

After 4 weeks, participants reported the following improved skills regarding the treatment of patients with high triglycerides: 69% pharmacotherapy, 67% disease state awareness, and 52% diagnostic evaluation.

94% of learners are engaged in direct patient care.

97% of participants reported learning new and useful strategies for patient care.