



**NACE**

# Emerging Challenges in Primary Care



**LIVE CONFERENCE SERIES**



## 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



231 total attendees



1 city

- ❖ 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.

## Course Director

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**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

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**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



# Emerging Challenges in Primary Care

Update 2019 Conference Schedule

## 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



### 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.

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



### Emerging Challenges in Primary Care

LIVE CONFERENCE SERIES

#### 2019 Clinical Highlights

##### Cardiovascular Disease and Hypertriglyceridemia: The Evolving Link

**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

- Triglycerides are pro-atherogenic and hypertriglyceridemia is associated with increased risk for atherosclerotic cardiovascular disease (ASCVD).
- Hypertriglyceridemia is common, with higher rates among men and Mexican-American people, and non-Hispanic whites. About one third of US adults have triglyceride levels  $\geq 150$  mg/dL.
- Causes of elevated triglycerides include obesity/overweight, inactivity, cigarette smoking, excess alcohol intake, high carbohydrate diets, certain diseases (eg, T2D, chronic renal failure), and certain drugs (eg, corticosteroids, estrogens, retinoids, high-dose beta blockers).
- High triglyceride levels are associated a pro-atherogenic profile, including smaller, denser LDL-C particles, increased VLDL, low HDL-C, increased chylomicron remnants, and increased coagulation factors.
- High triglyceride levels are associated with ASCVD events, even in patients treated with statins.
- Exercise and low-fat and low-carbohydrate diets reduce triglyceride levels.
- Drugs shown to reduce triglyceride levels include statins, PCSK9 inhibitors, niacin, fibrates, and omega-3 fatty acids. Niacin is not recommended by guidelines, based on lack of ASCVD outcomes benefits.
- The 2018 Blood Cholesterol Guidelines make four recommendations related to hypertriglyceridemia:
  1. Assess for secondary causes (see Table 1)

# 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**

Moore DE Jr, Green JS, Gallis HA. Achieving desired results and improved outcomes: integrating planning and assessment throughout learning activities. J Contin. Educ. Health Prof. 2009 Winter;29(1):1-15



# Level 1:

## Demographics & Patient Reach



# Level 1: Participation



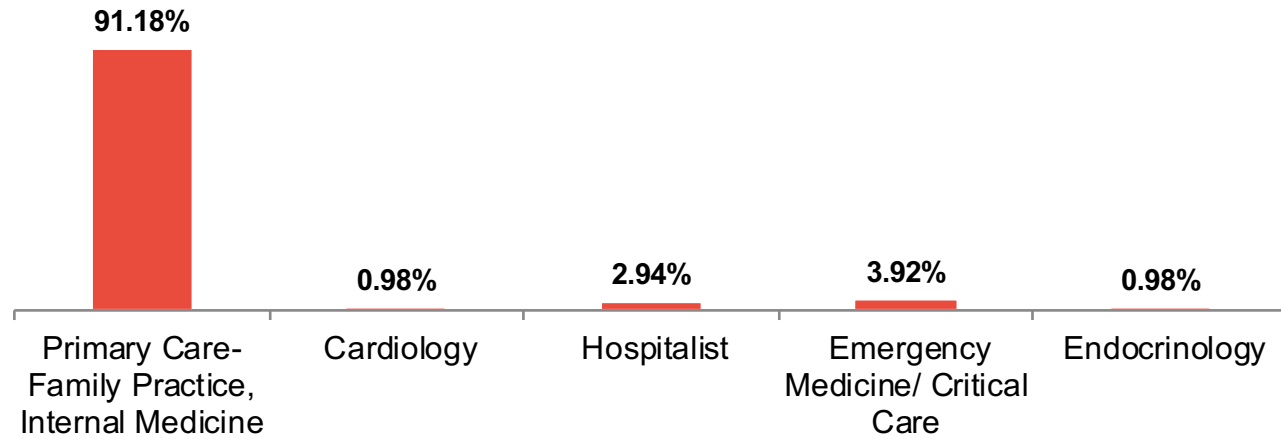
**231** total attendees



**94%**

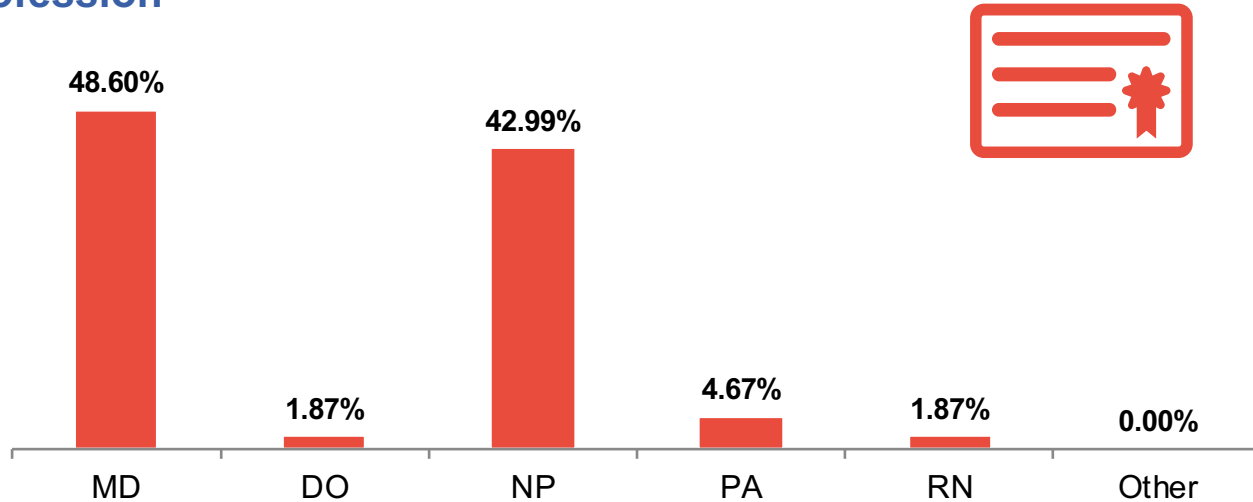
Provide direct  
patient care

# Level 1: Demographics

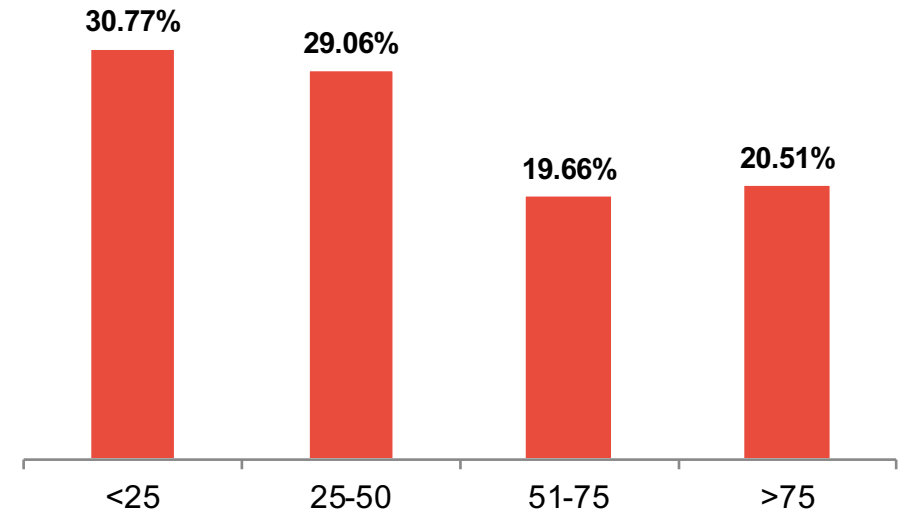


Patient Care Focus: 94%

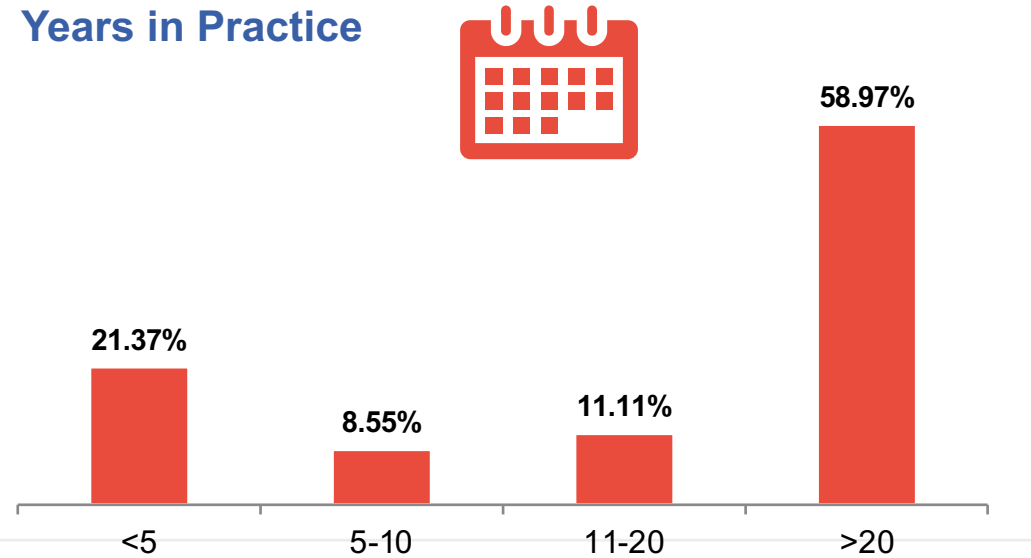
## Profession



## Patients seen each week, in any setting:



## Years in Practice





# Level 2-5:

Outcomes Metrics

## 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

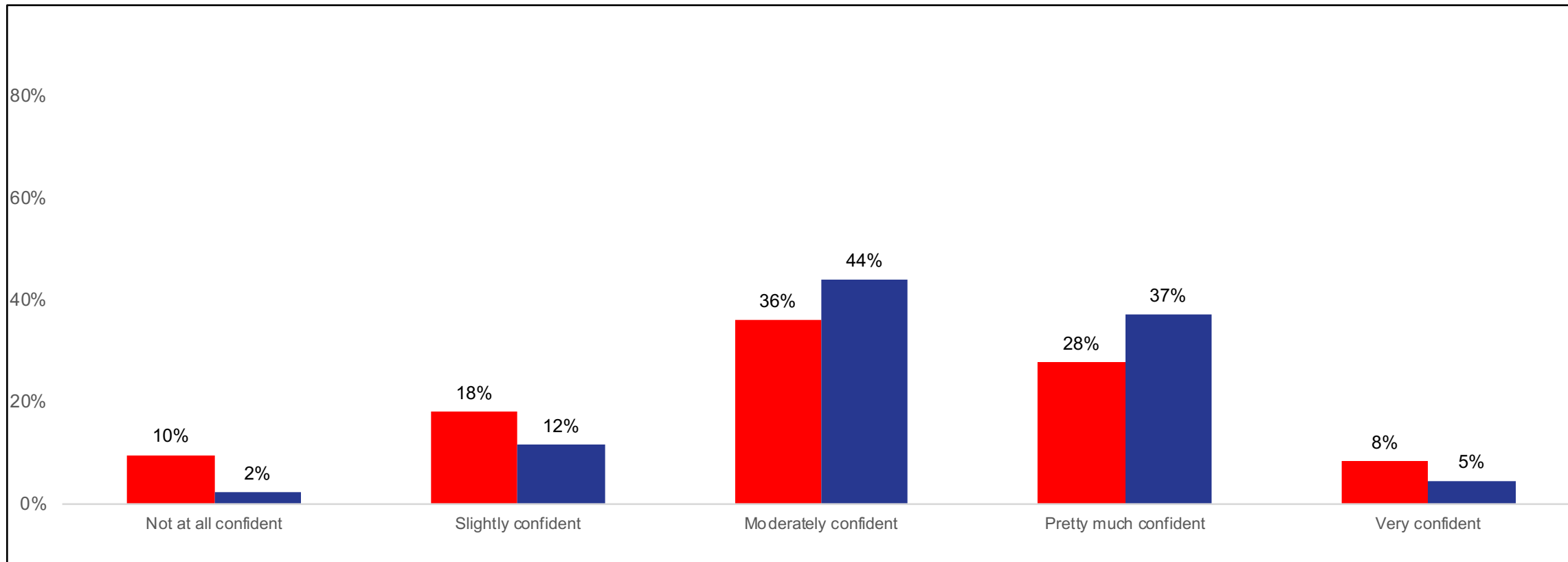


**100%** said the program was fair-balanced and unbiased

## Confidence Assessment

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

(Learning Objective 3,4)



N= Pre: 116 PCA: 43

## Competence

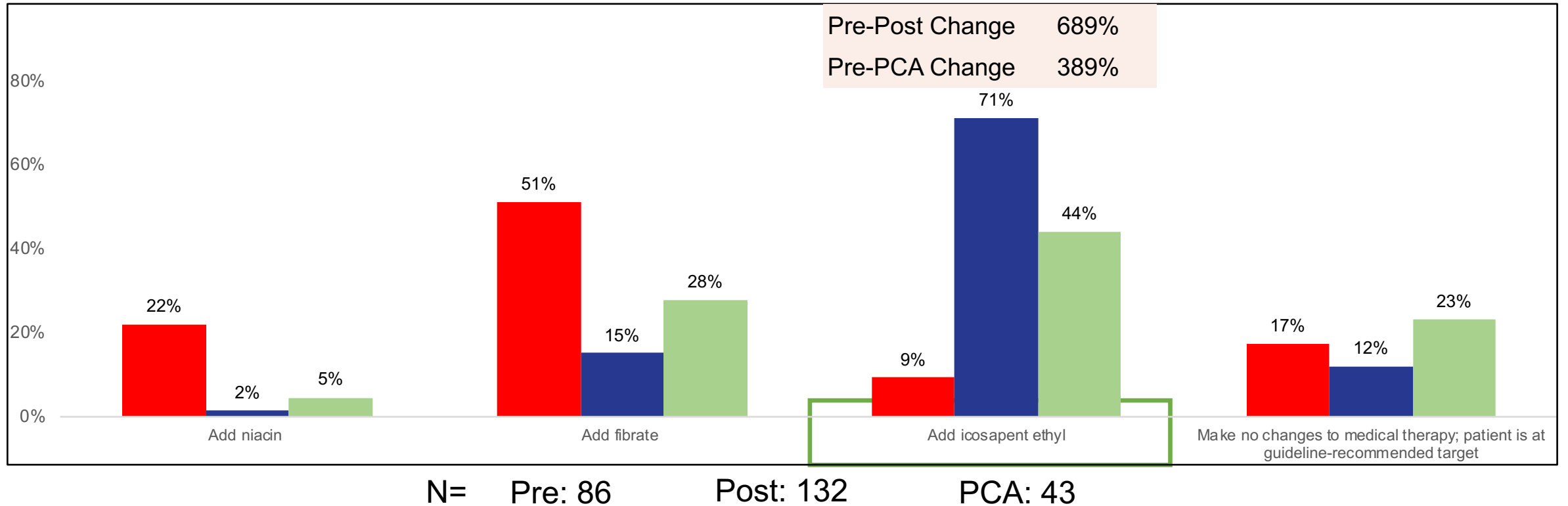
### 64-y/o Hispanic woman with a history of NSTEMI 6 months ago

- **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



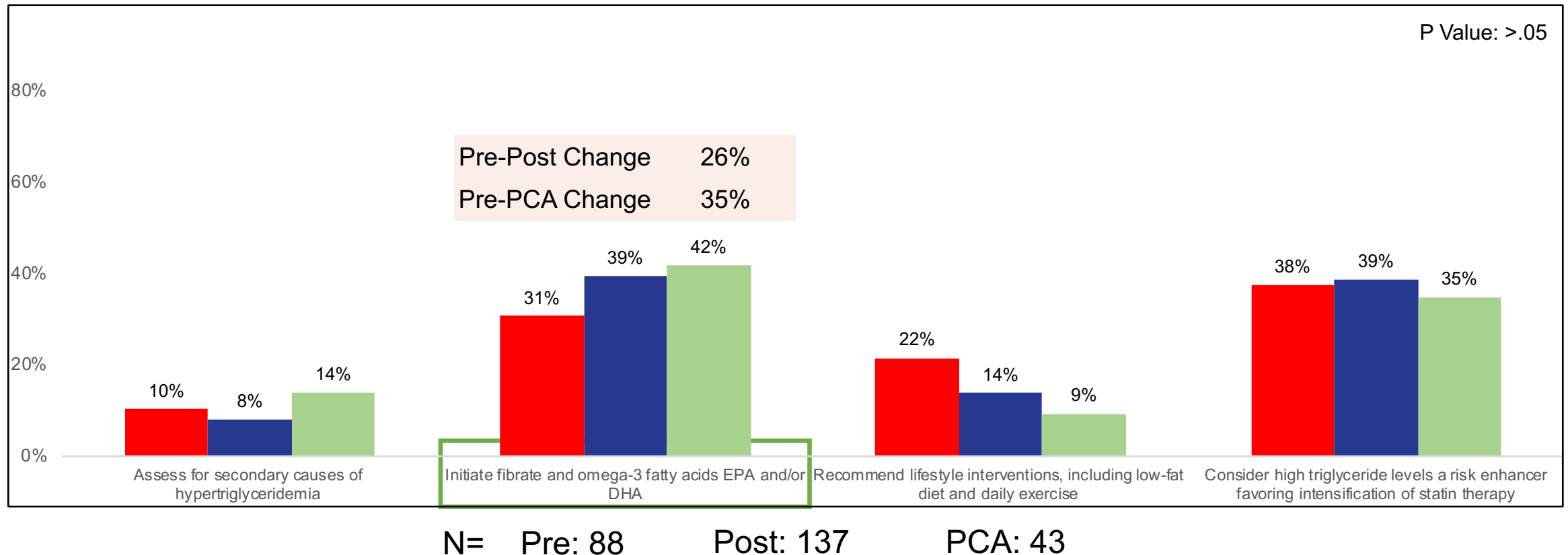
## Competence

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:

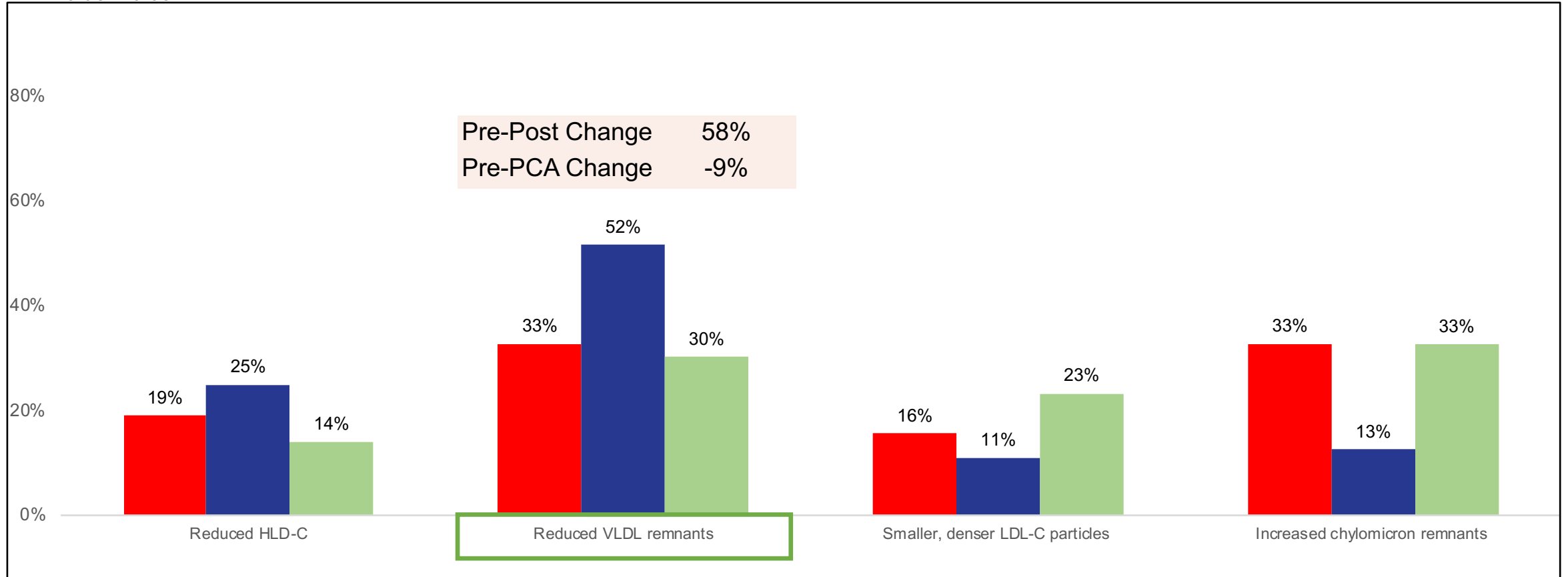
(Learning Objective 1, 3, and 4)



# High triglyceride levels are associated with all of the following pro-atherogenic changes, EXCEPT:

(Learning Objective 1)

P Value: <0.05



Pre-Post Change 58%  
Pre-PCA Change -9%

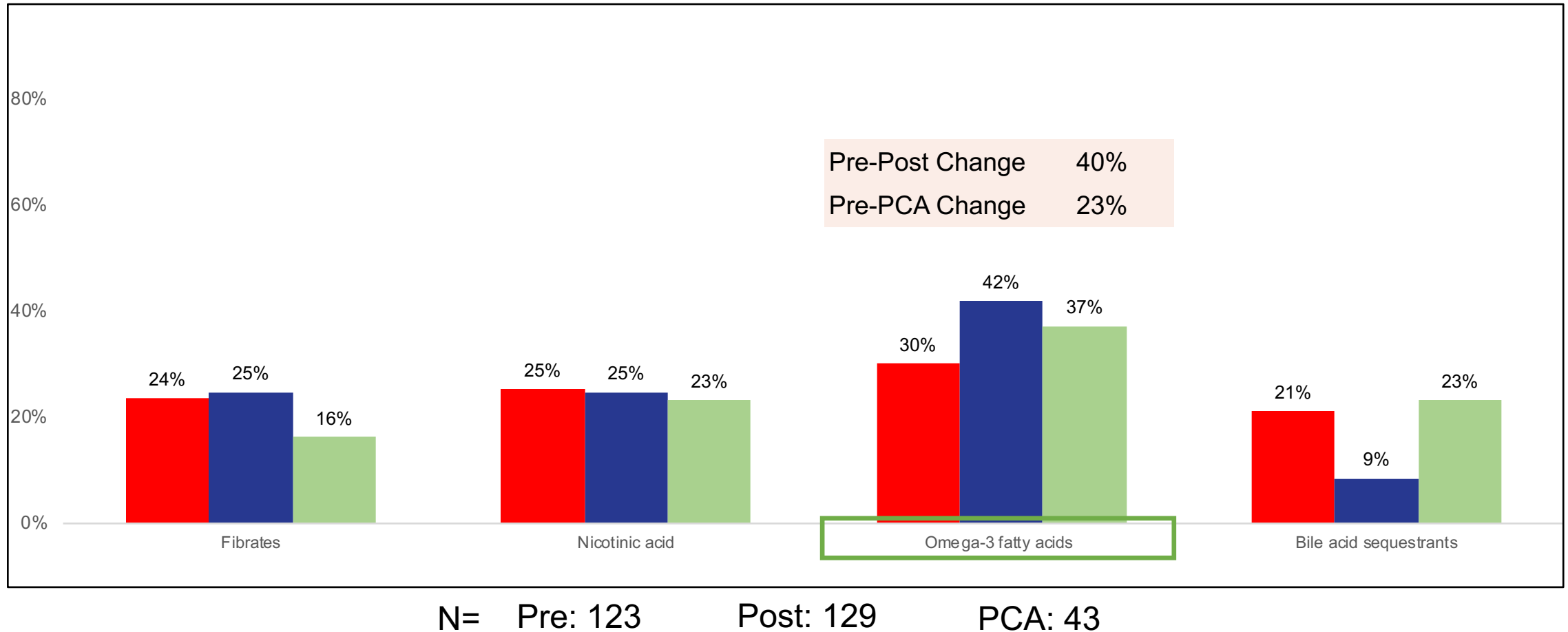
N= Pre: 116 Post: 128 PCA: 43



# Which of the following lipid-lowering agents has been shown to reduce triglyceride levels, but increase LDL-C?

(Learning Objective 2)

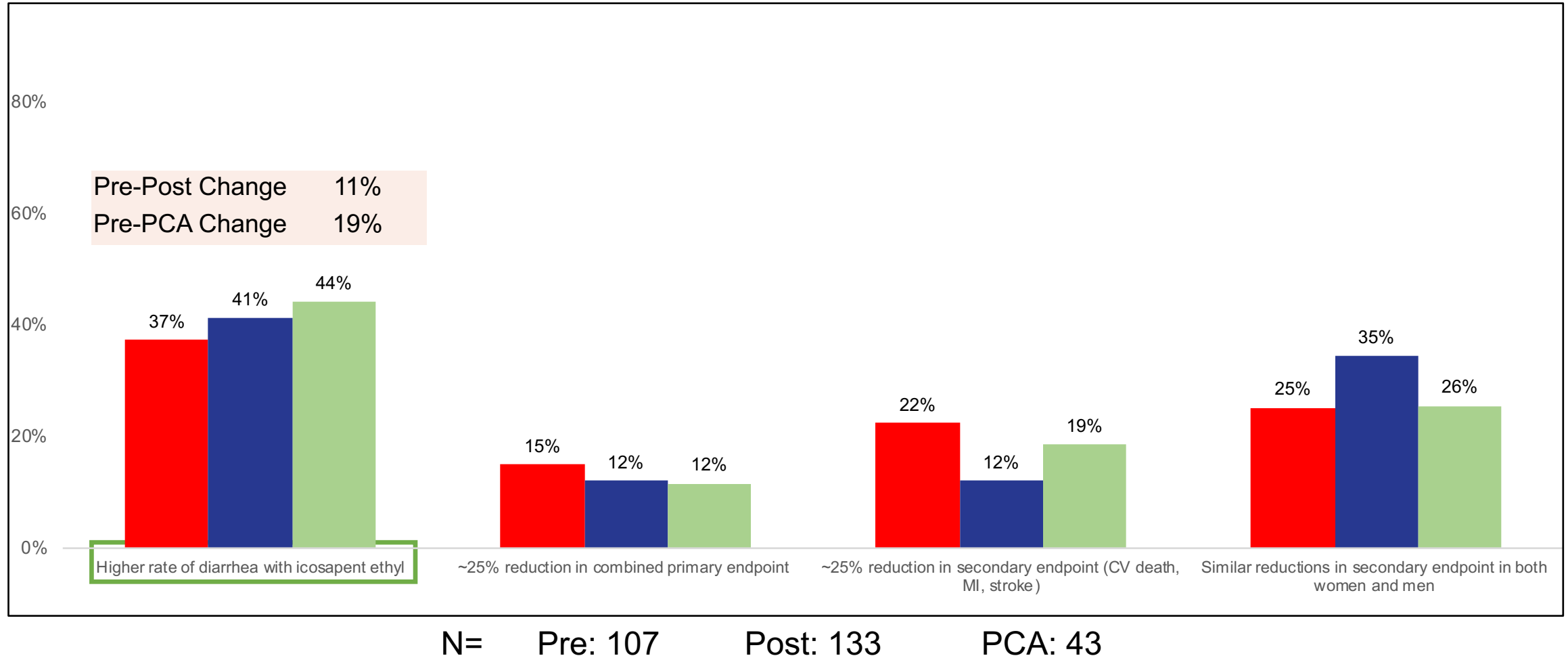
P Value: <0.05



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

(Learning Objective 1, 2, 3)

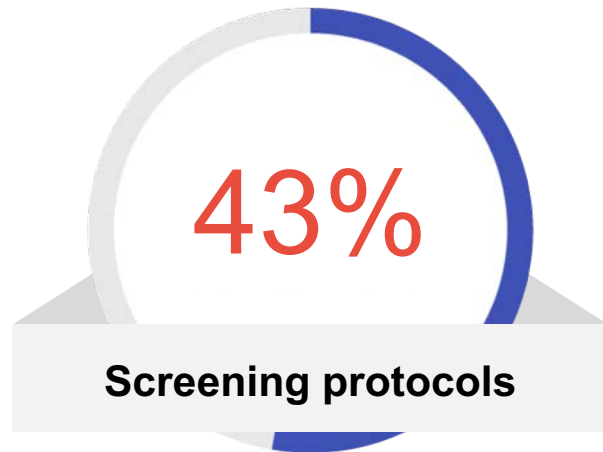
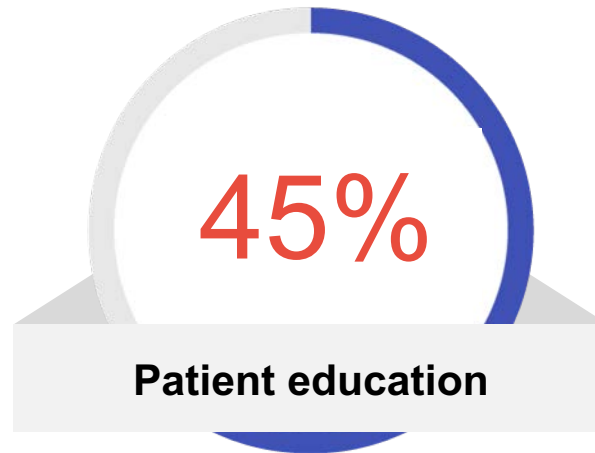
P Value: <0.05



(4-week Post Assessment)

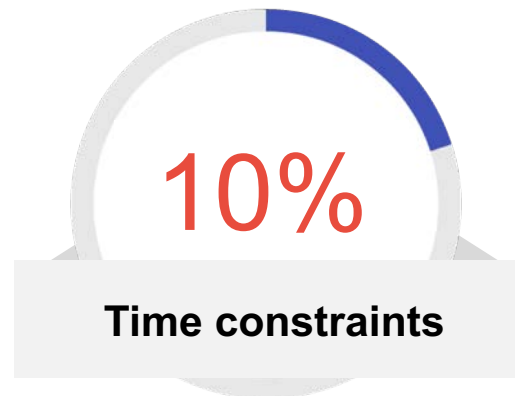
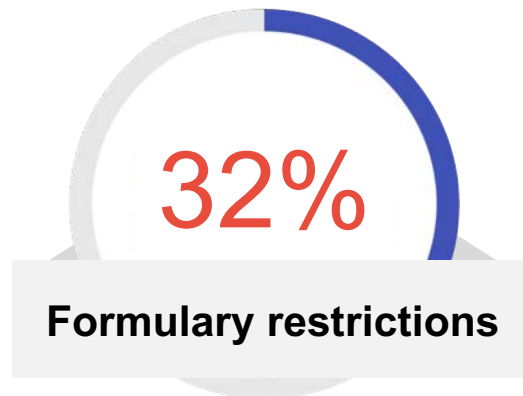
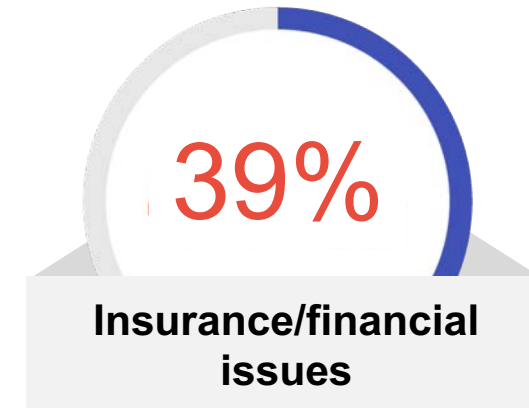
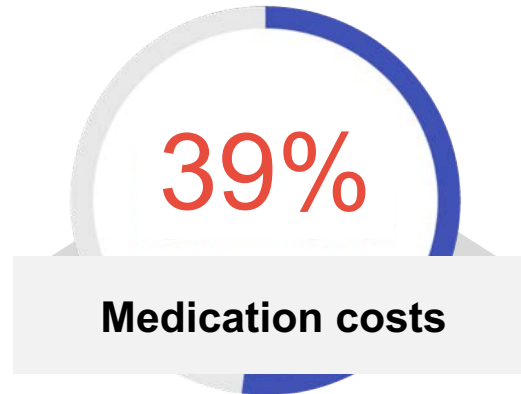
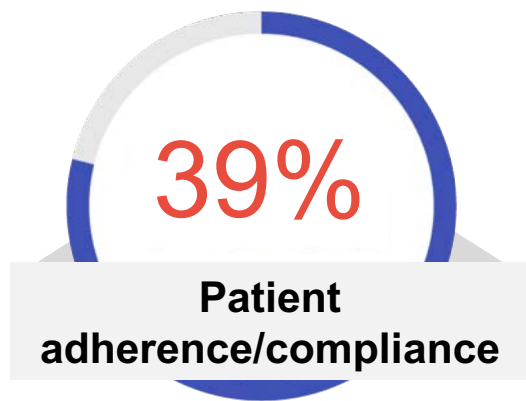
Please select the specific areas of skills, or practice behaviors, you have improved regarding the treatment of patients with high triglycerides since this CME activity. (Select all that apply.)

N=43



(4-week Post Assessment)

**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**



# 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 trial and its clinical significance

Proatherogenic changes associated with high triglycerides



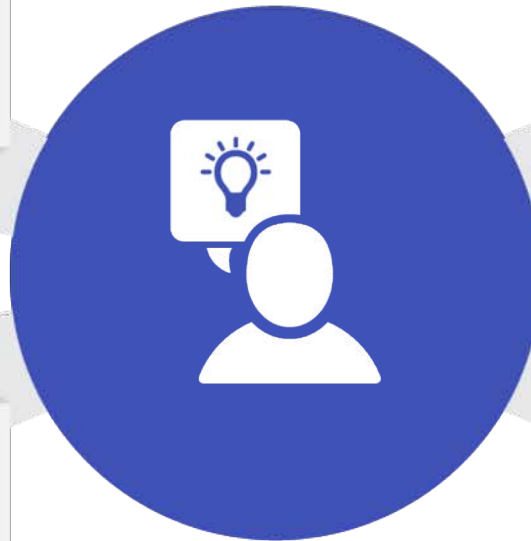
# Participant Educational Gains

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

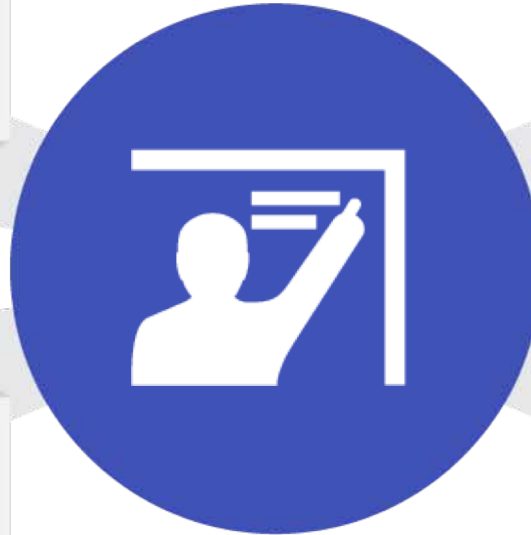
Improved awareness of the clinical impact demonstrated in the REDUCE-IT trial



# 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