Conversations in Cardiology: September 23, 2017

Making Sense of Evolving Data to Lower CV Risk: Integrating PCSK9 Therapy into Practice

**Interim Live Activity Outcome Report: Amgen Grant # IME 105061**

January 8, 2018

Curriculum Overview

❖   Accredited Live Virtual Symposia, Date: September 23, 2017

❖   Non-Accredited "Clinical Highlights" - The program content was reinforced to participants with a document containing key teaching points from the program and is distributed 1 week after each meeting.

❖   Enduring Symposium Webcast, Launch Date: November 15, 2017 End Date: November 14, 2018

  ❖   http://naceonline.com/CME-Courses/course_info.php?course_id=930

Level 1 (Participation)

Practice specialty
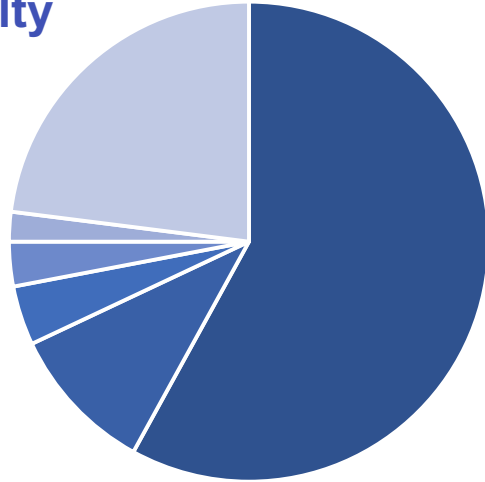
- 58% PCPs
- 10% Cardiology
- 4% Hospitalist
- 3% Emergency/Critical Care
- 2% Pulmonology
- 23% Other or did not respond

481
total attendees

Professional Degree

- 26% MD
- 3% DO
- 61% NP
- 6% PA
- 4% RN or other

92%
Provide direct patient care

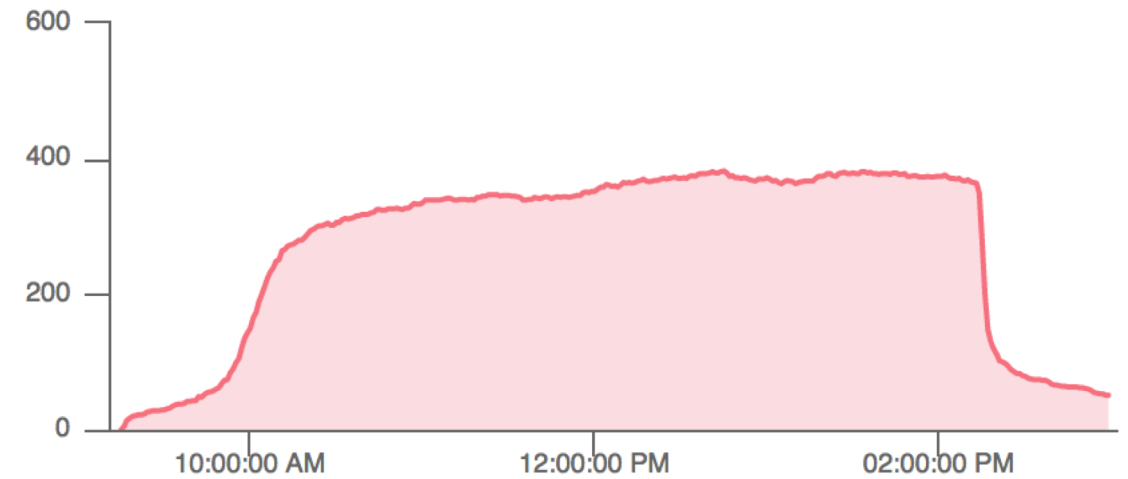# Level 1 (Audience Engagement for Entire Program)

Average Live Duration: 204 min

Questions Asked by Attendees: 217

# of Pre/Post Questions: 29
# of Pre/Post Responses: 6336
Average Response rate: 48%

Attendance Live:

Key Findings

Knowledge/Competence

Improvement in all questions regarding integration of new data into the management of patients with dyslipidemia, with 3 out of 4 achieving statistical significance

Confidence

53% improvement in confidence in ability to select appropriate lipid lowering therapies to minimize risk for CV events in patients with high ASCVD risk 4 weeks after program.

Practice

Over 300% improvement in willingness to consider PCSK9 inhibitors in patients with high ASCVD risk who require greater LDL-C reduction, despite maximally tolerated statin therapy, 4 weeks after program.

Change of Practice Behavior

After 4 weeks, participants reported the following improved skills regarding the treatment of patients with hypercholesterolemia: 75% pharmacotherapy, 68% disease state awareness, and 58% patient education.

4 Weeks Post N= 158

Discussion and Implications

❖ Moderate to very confident levels in the ability to ability to the ability to select appropriate lipid lowering therapies to minimize risk for CV events in your patients with high ASCVD risk rose from 49% to 92% after the activity.

❖ At 4 weeks, confidence levels remained at 75%, a significant improvement from baseline

❖ Data obtained from participants 4 weeks after the program demonstrated some slippage in learning from the post-test scores but these remained above baseline.

❖ Participants were more competent and knowledgeable in the management of patients with dyslipidemia 4 weeks after the activity.

❖ Learners demonstrated persistent gaps in the several areas including:

  ❖ The role of non-statin therapy in the management of patients with high ASCVD risk

  ❖ How to integrate emerging data on the role of PCSK9 inhibitors into practice

The post-test scores, and intent to change practice patterns regarding the management of patients with high ASCVD risk who require greater LDL-C reduction, despite maximally tolerated statin therapy, signifies a clear gap in knowledge and an unmet need among primary care clinicians. It continues to be an important area for future educational programs.

Course Director

Gregg Sherman, MD
Chief Medical Officer of NACE
Plantation, FL

Activity Planning Committee

Gregg Sherman, MD

Harvey C. Parker, PhD, CHCP

Michelle Frisch, MPH, CHCP

Stephen Webber

Alan Goodstat, LCSW

Cheryl C. Kay

Sheila Lucas, CWEP

Faculty

Moderator:
Keith C. Ferdinand, MD, FACC, FAHA, FNLA, FASH
Professor of Medicine
Tulane University School of Medicine
Tulane Heart and Vascular Institute
New Orleans, LA

Presenter:
Seth Baum, MD, FACC, FACPM, FAHA, FNLA, FASPC
President, American Society for Preventive Cardiology
Clinical Affiliate Professor of
Biomedical Science Florida Atlantic University
Founder, Excel Medical Clinical Trials
Boca Raton, FL

Commercial Support

The Conversations in Cardiology: September 23, 2017 was supported through educational grants or donations from the following companies:

- Amgen

- Boehringer Ingelheim Pharmaceuticals, Inc. and Lilly USA

Learning Objectives

1. Review current recommendations for the use of non-statin therapies in the management of dyslipidemia

2. Explain the role of anti-PCSK9 monoclonal antibody therapy in LDL-C reduction to achieve cardiovascular risk reduction

3. Describe the findings from recent trials of dyslipidemia treatments on cardiovascular outcomes

4. Integrate new data into treatment strategies for further improving cardiovascular outcomes in the highest risk patients

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 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
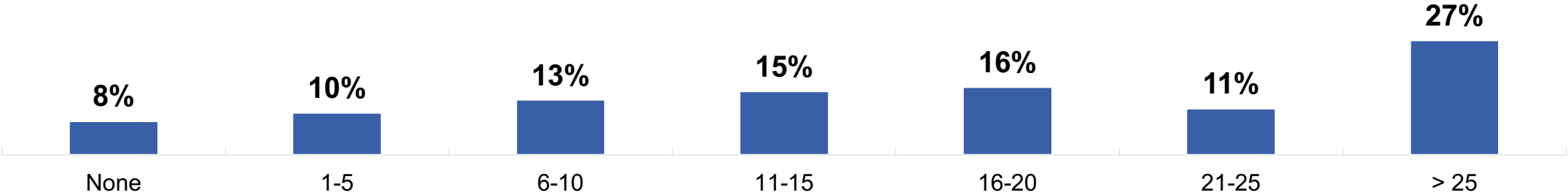
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91% said they would implement new strategies that they learned

100% said the program was fair-balanced and unbiased

Patients visits with hyperlipidemia seen each week in a clinical setting:

| None	1-5	6-10	11-15	16-20	21-25	> 25
8%	10%	13%	15%	16%	11%	27%

Sample Size: N = 359

Attendee Learning Objectives Achievement

Upon completion of this activity, I can now:

- Review current recommendations for the use of non-statin therapies in the management of dyslipidemia

- Explain the role of anti-PCSK9 monoclonal antibody therapy in LDL-C reduction to achieve cardiovascular risk reduction

- Describe the findings from recent trials of dyslipidemia treatments on cardiovascular outcomes

- Integrate new data into treatment strategies for further improving cardiovascular outcomes in the highest risk patients
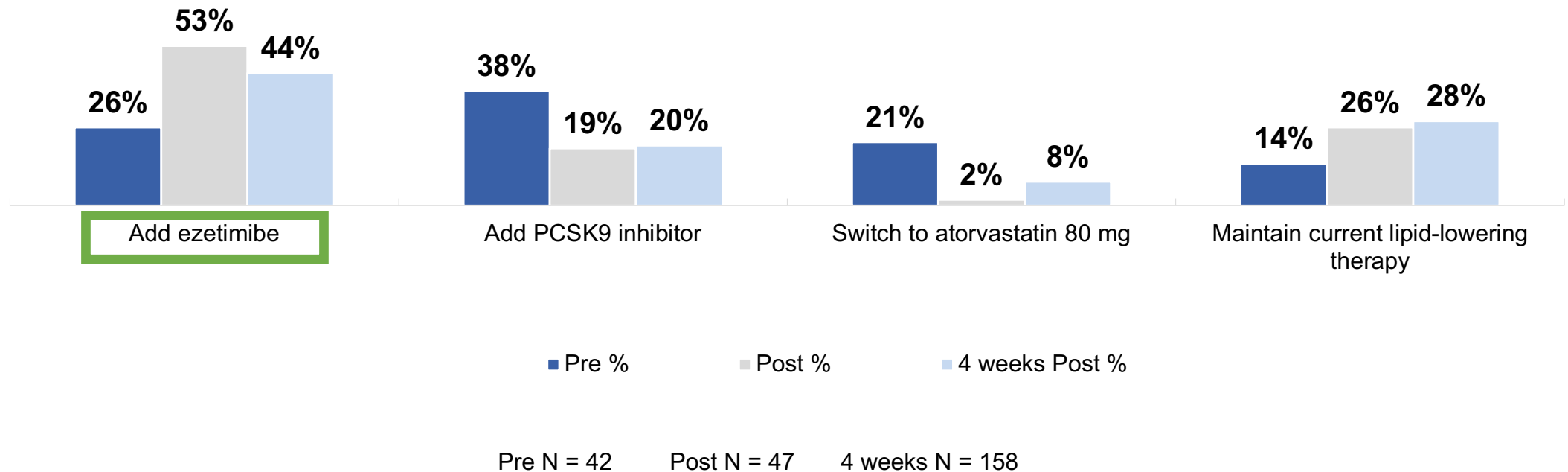
	76%	24%	0%
	Yes	Somewhat	Not at all
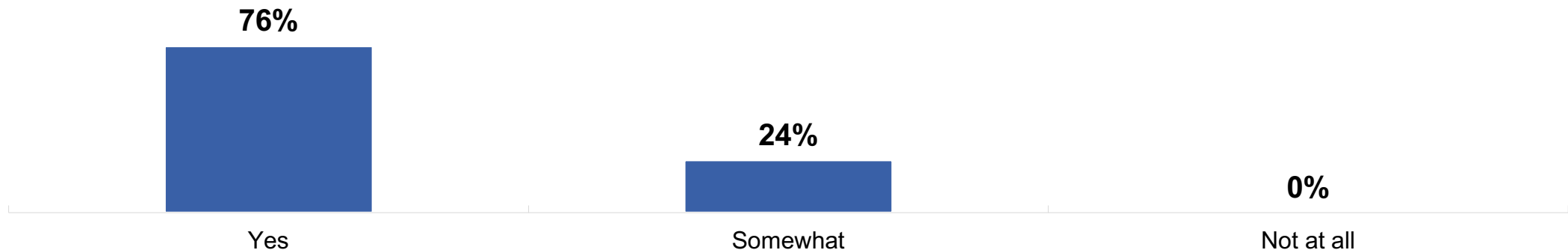
Sample Size: N = 359

A 69-year-old man with stable ASCVD and diabetes is treated with rosuvastatin 40 mg qd. His LDL-C is 92 mg/dL. According to the 2016 ACC Expert Consensus, what would be an appropriate action?
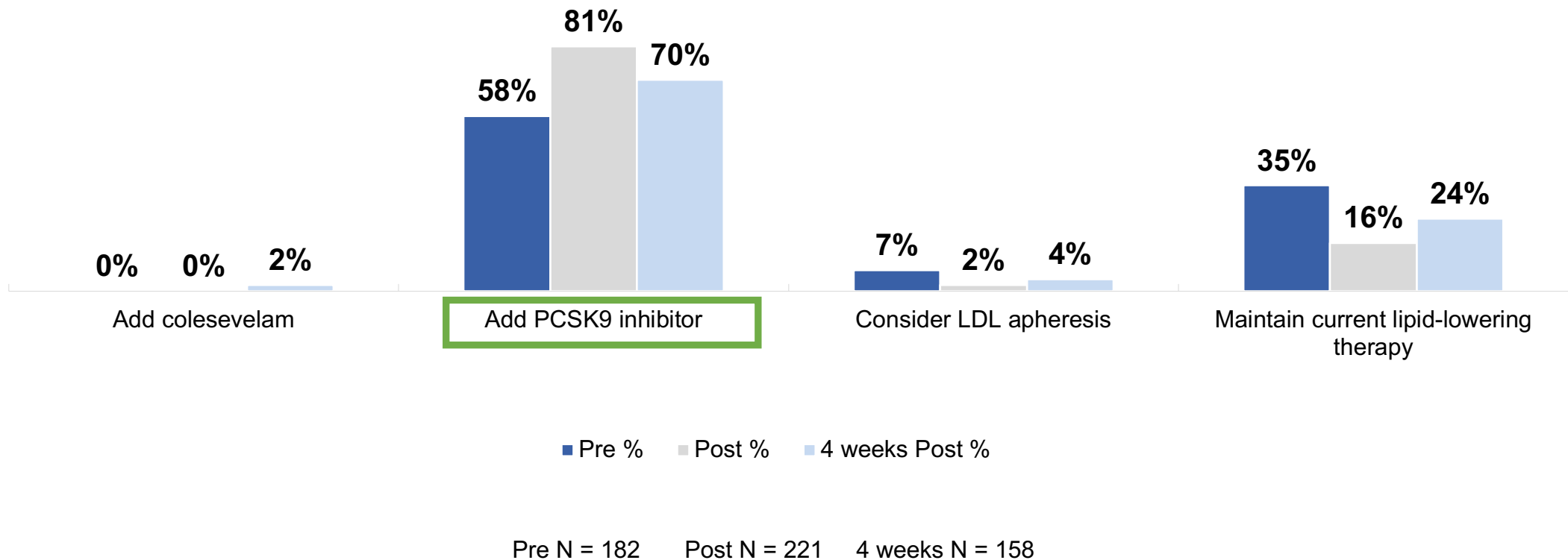
(Learning Objective 1 and 4)

P Value: 0.00957 – Significant

Add ezetimibe	Add PCSK9 inhibitor	Switch to atorvastatin 80 mg	Maintain current lipid-lowering therapy

- ■ Pre %
- ■ Post %
- ■ 4 weeks Post %

Pre N = 42   Post N = 47   4 weeks N = 158

Add ezetimibe: Pre 26%, Post 53%, 4 weeks Post 44%
Add PCSK9 inhibitor: Pre 38%, Post 19%, 4 weeks Post 20%
Switch to atorvastatin 80 mg: Pre 21%, Post 2%, 4 weeks Post 8%
Maintain current lipid-lowering therapy: Pre 14%, Post 26%, 4 weeks Post 28%

A 66-year-old woman with recurrent ASCVD events experiences NSTEMI while treated with atorvastatin 80 mg qd and ezetimibe 10 mg qd. Her LDL-C is 72 mg/dL. According to the 2016 ACC Expert Consensus, what would be an appropriate action?
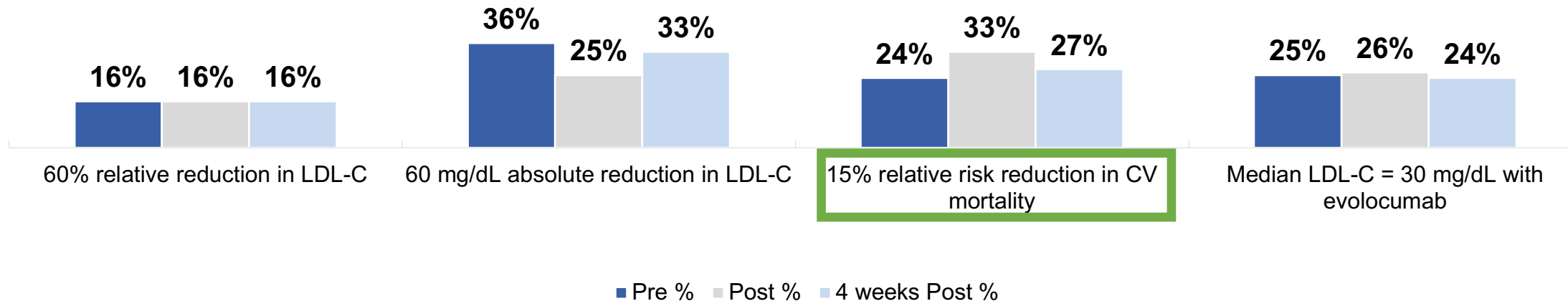
(Learning Objective 1,2 and 4)

P Value: <0.001 – Significant

Add colesevelam — Pre 0%, Post 0%, 4 weeks Post 2%

Add PCSK9 inhibitor — Pre 58%, Post 81%, 4 weeks Post 70%

Consider LDL apheresis — Pre 7%, Post 2%, 4 weeks Post 4%

Maintain current lipid-lowering therapy — Pre 35%, Post 16%, 4 weeks Post 24%

■ Pre %   ■ Post %   ■ 4 weeks Post %

Pre N = 182   Post N = 221   4 weeks N = 158

In the FOURIER trial, all of the following outcomes were reported with evolocumab vs. placebo, EXCEPT:
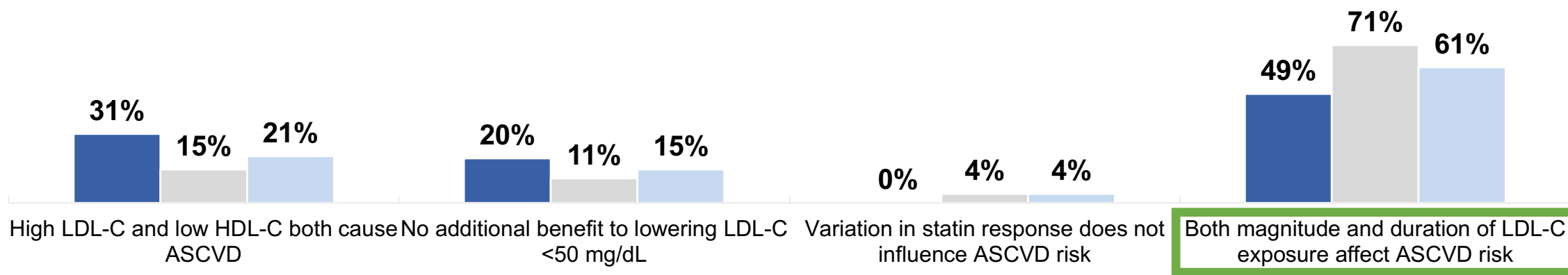## (Learning Objective 2 and 3)
P Value: 0.0506 – Not Significant

Pre N = 191   Post N = 216   4 weeks N = 158

Evidence from Mendelian randomization studies and recent major RCTs suggest which of the following?
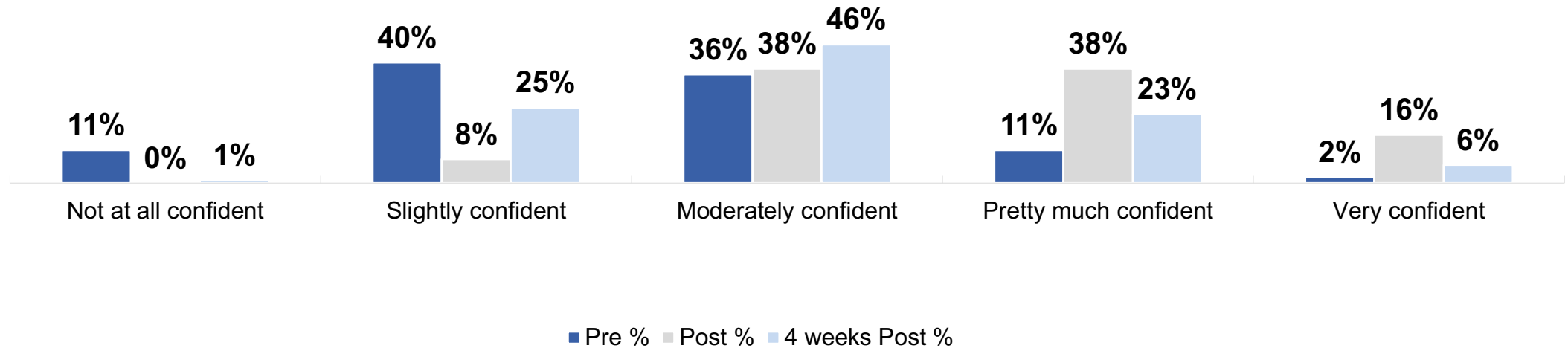
(Learning Objective 3)

P Value: <0.001 – Significant

	71%	
49%		**61%**
31%		
	15%	**21%**
20%	**11%**	**15%**
0%	**4%**	**4%**

High LDL-C and low HDL-C both cause ASCVD | No additional benefit to lowering LDL-C <50 mg/dL | Variation in statin response does not influence ASCVD risk | Both magnitude and duration of LDL-C exposure affect ASCVD risk

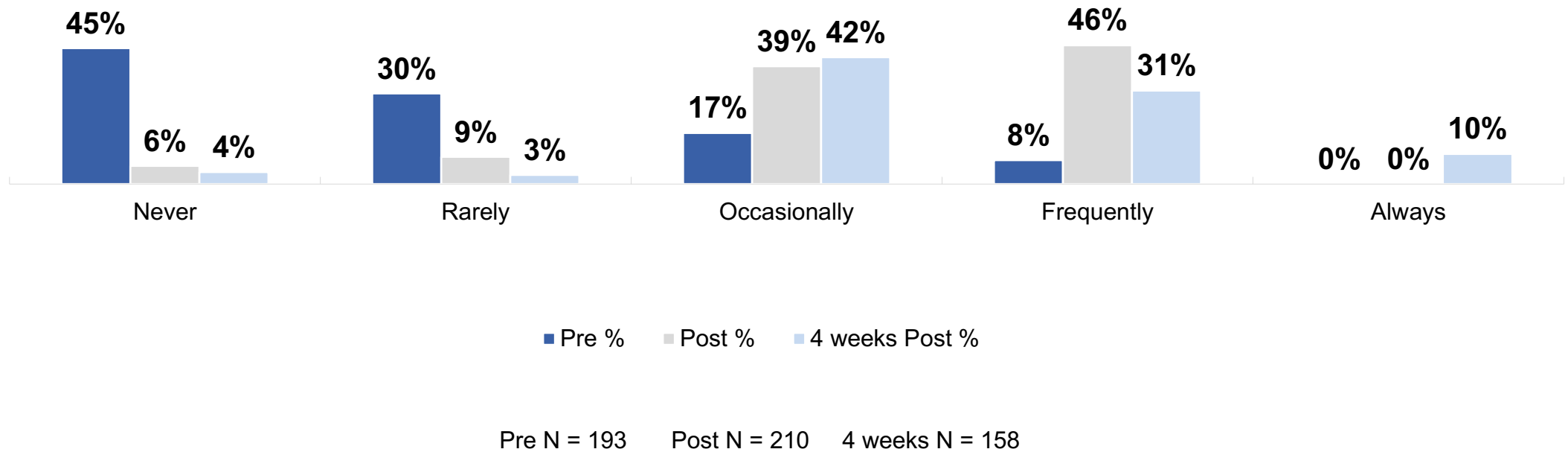■ Pre %   ■ Post %   ■ 4 weeks Post %

Pre N = 192   Post N = 216   4 weeks N = 158

Please rate your confidence in your ability to select appropriate lipid lowering therapies to minimize risk for CV events in your patients with high ASCVD risk:

	Not at all confident	Slightly confident	Moderately confident	Pretty much confident	Very confident
Pre %	11%	40%	36%	11%	2%
Post %	0%	8%	38%	38%	16%
4 weeks Post %	1%	25%	46%	23%	6%

■ Pre %   ■ Post %   ■ 4 weeks Post %

Pre N = 210   Post N = 245   4 weeks N = 158

How often do/will you consider PCSK9 inhibitors in patients with high ASCVD risk who require greater LDL-C reduction, despite maximally tolerated statin therapy?

	Never	Rarely	Occasionally	Frequently	Always
Pre %	45%	30%	17%	8%	0%
Post %	6%	9%	39%	46%	0%
4 weeks Post %	4%	3%	42%	31%	10%

■ Pre %   ■ Post %   ■ 4 weeks Post %

Pre N = 193   Post N = 210   4 weeks N = 158

Data Interpretation

Are more aware of the guidelines supporting lipid management for patients with stable ASCVD.

Are more aware of the guidelines supporting lipid management for patients with unstable ASCVD.


Participant Educational Gains

Understand the results of the Fourier trial and that it did not include a 15% relative risk reduction in CV mortality.

Understand Mendelian randomization studies and recent RCT's indicating that ASCVD risk is determined by the magnitude and duration of LDL-C exposure.

Data Interpretation

Over 300% improvement in willingness to consider PCSK9 inhibitors in patients with high ASCVD risk 4 weeks after program.

53% improvement in confidence in ability to select appropriate lipid lowering therapies to minimize risk for CV events in patients with high ASCVD risk 4 weeks after program.
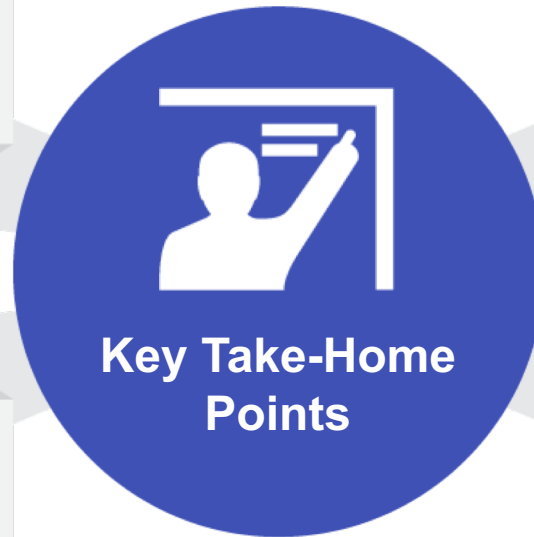
Key Take-Home Points

91% of participants are likely to utilize information learned from this activity in their practice.

69% of attendees report seeing 11 or more patients with hyperlipidemia weekly; 82% see > than 5, suggesting a significant number of patients impacted.

ABC Association of Black Cardiologists, Inc.

NACE

Persistent Educational Gaps After 4 Weeks

The role of non-statin therapy in the management of patients with stable ASCVD

The role of non-statin therapy in the management of patients with recurrent, high-risk ASCVD

The results of recent dyslipidemia trials and how to integrate them into practice

The magnitude and duration of LDL-C on ASCVD risk

New Specific Behaviors Reported at 4 weeks

I am more confident explaining to patients the need for lipid treatment to lower CVD risk

I am more aggressive at LDL lowering

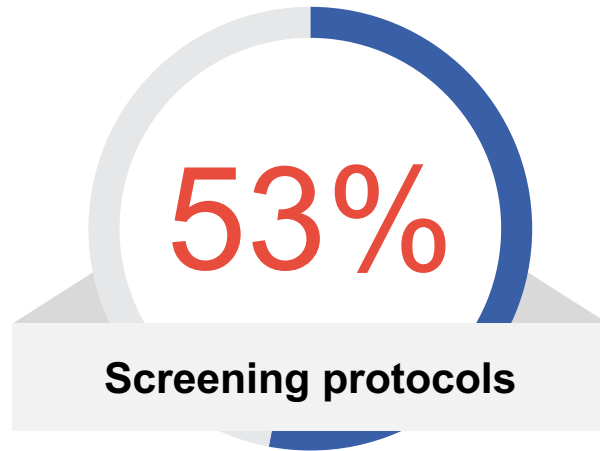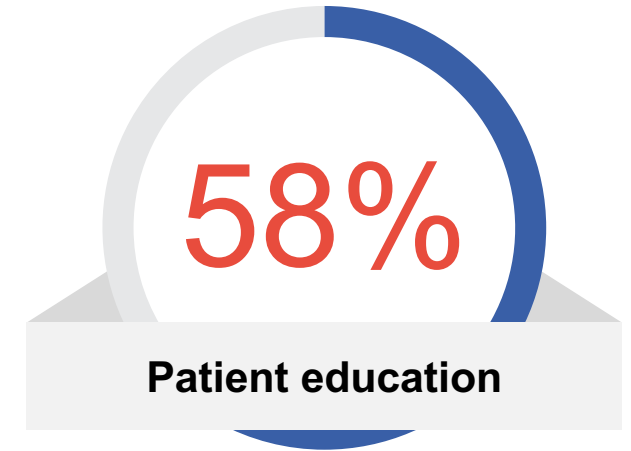I am prescribing PCSK9 inhibitors

I am doing more screening for hyperlipidemia

I consider adding non-statin therapy more often for patients where indicated

What specific barriers have you encountered that may have prevented you from successfully implementing strategies for patients with hypercholesterolemia since this CME activity? (Select all that apply)

75%
Medication costs

58%
Insurance/financial issues

52%
Patient adherence/ compliance

38%
Formulary restrictions

23%
Lack of knowledge