

Conversations in Cardiology: September 23, 2017



Type 2 Diabetes and Cardiovascular Disease: Decreasing the Risk

Interim Live Outcome Report: BI-Lilly Grant # ME201722069

January 4, 2018

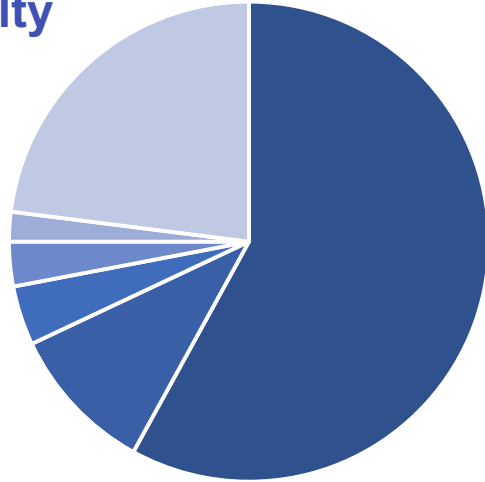


Curriculum Overview

- ❖ 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=929

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

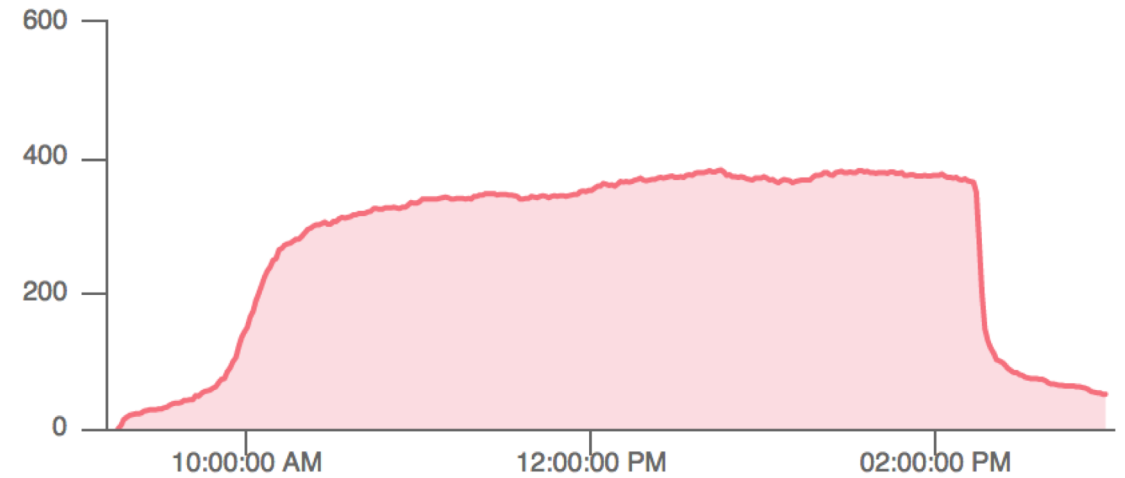


92%
Provide direct
patient care

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 5 of 6 questions regarding the relationship between and management of patients with diabetes and cardiovascular disease, though only 2 achieved statistical significance.



Confidence

Over 500% improvement in confidence in the ability to manage patients with diabetes and high cardiovascular risk 4 weeks after the program.



Practice

97% stated 4 weeks after program they (sometimes-always) intend to assess A1C in patients with, or at high risk for, cardiovascular disease



Change of Practice Behavior

After 4 weeks, participants reported the following improved skills regarding the treatment of patients with diabetes and cardiovascular disease: 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 manage patients with diabetes and high cardiovascular risk rose from 15% to 97% after the activity.
- ❖ At 4 weeks, confidence levels remained at 76%, a significant improvement from baseline
- ❖ Data obtained from participants 4 weeks after the program demonstrated some slippage in learning from the post-test scores indicating that educational reinforcement was indicated.
- ❖ Learners demonstrated persistent gaps in the several areas including:
 - ❖ The impact of diabetes on cardiovascular risk
 - ❖ How to incorporate evolving data on cardiovascular risk reduction into the treatment of patients with diabetes

The post-test scores, and intent to change practice patterns regarding the management of patients with diabetes and high cardiovascular disease risk, 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

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Commercial Support

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- Amgen
- Boehringer Ingelheim Pharmaceuticals, Inc. and Lilly USA

Learning Objectives

1. Recognize the incidence of cardiovascular disease (CVD) and high-risk status in patients with diabetes, especially in certain racial/ethnic groups.
2. Describe the public health implications of CVD in diabetes.
3. Discuss the burden of comorbid CVD, including hypertension, dyslipidemia, coronary artery disease, and heart failure in patients with diabetes.
4. Implement evidence-based treatment of patients with diabetes and cardiovascular disease.

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

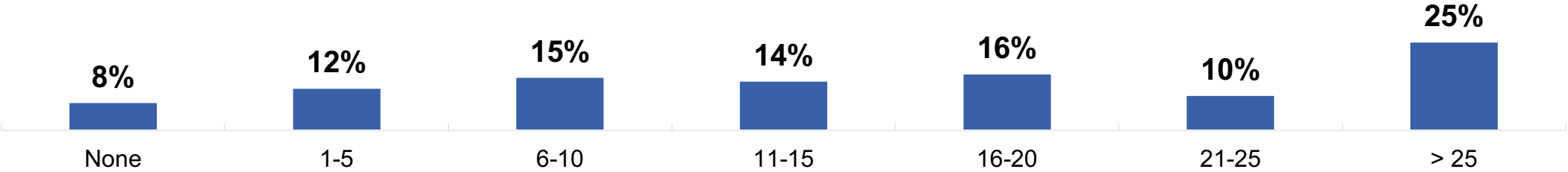


91% said they would implement new strategies that they learned



100% said the program was fair-balanced and unbiased

Patients visits with Diabetes with co-morbid Cardiovascular Disease seen each week in a clinical setting:

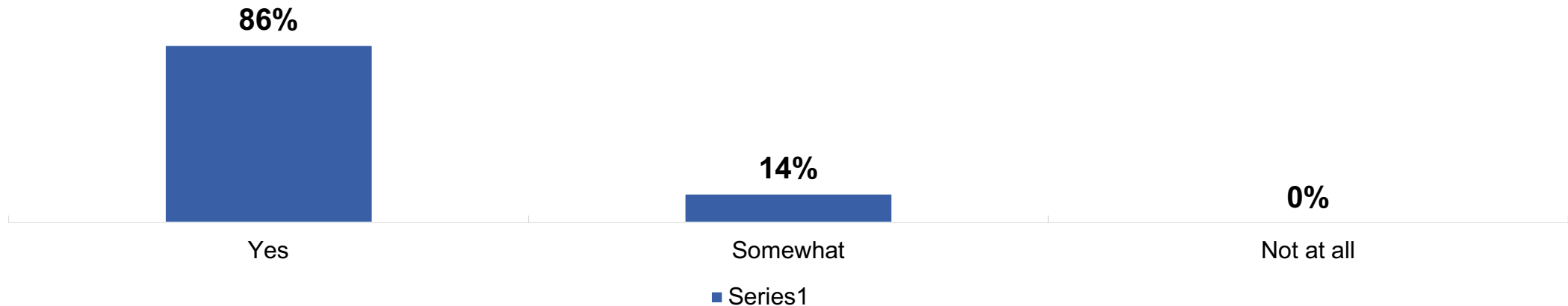


Sample Size: N = 359

Attendee Learning Objectives Achievement

Upon completion of this activity, I can now:

- Recognize the incidence of cardiovascular disease (CVD) and high-risk status in patients with diabetes, especially in certain racial/ethnic groups.
- Describe the public health implications of CVD in diabetes.
- Discuss the burden of comorbid CVD, including hypertension, dyslipidemia, coronary artery disease, and heart failure in patients with diabetes.
- Implement evidence-based treatment of patients with diabetes and cardiovascular disease.

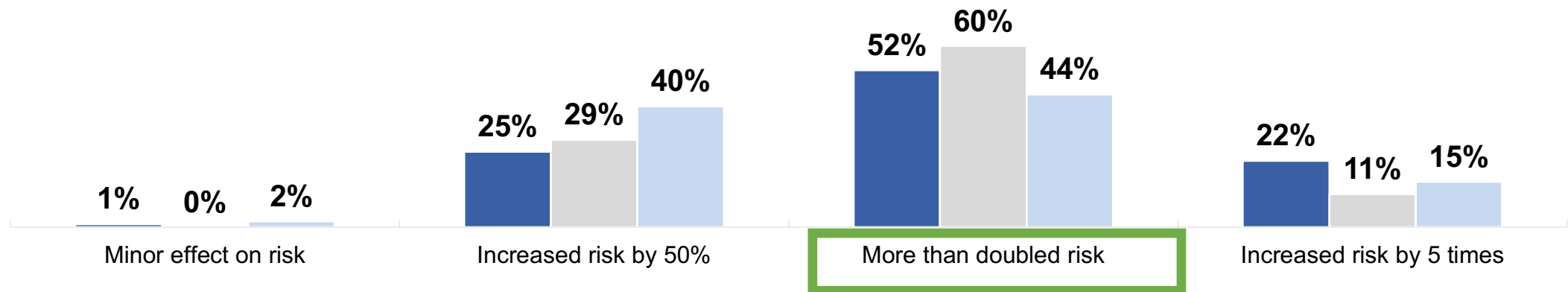


Sample Size: N = 359

A meta-analysis of prospective studies found that diabetes influenced risk for coronary deaths by about how much?

(Learning Objective 1)

P Value: 0.103 – Not Significant



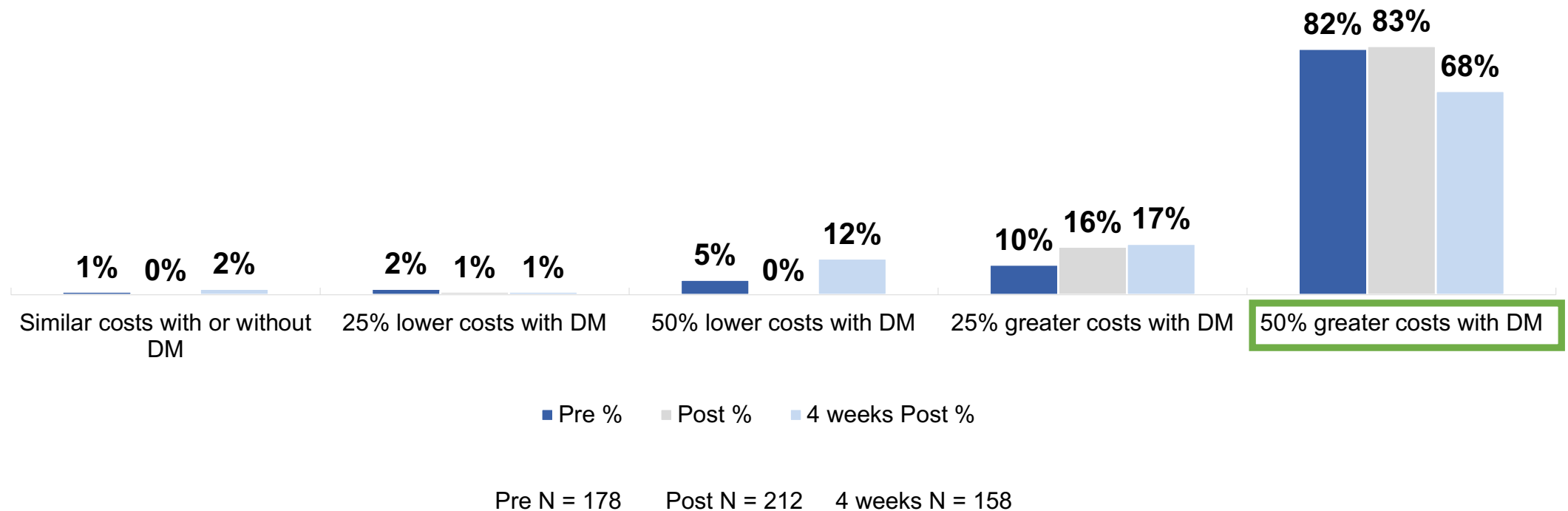
■ Pre % ■ Post % ■ 4 weeks Post %

Pre N = 178 Post N = 212 4 weeks N = 158

Studies of patients with CVD suggest that diabetes has about what effect on direct healthcare costs?

(Learning Objective 2)

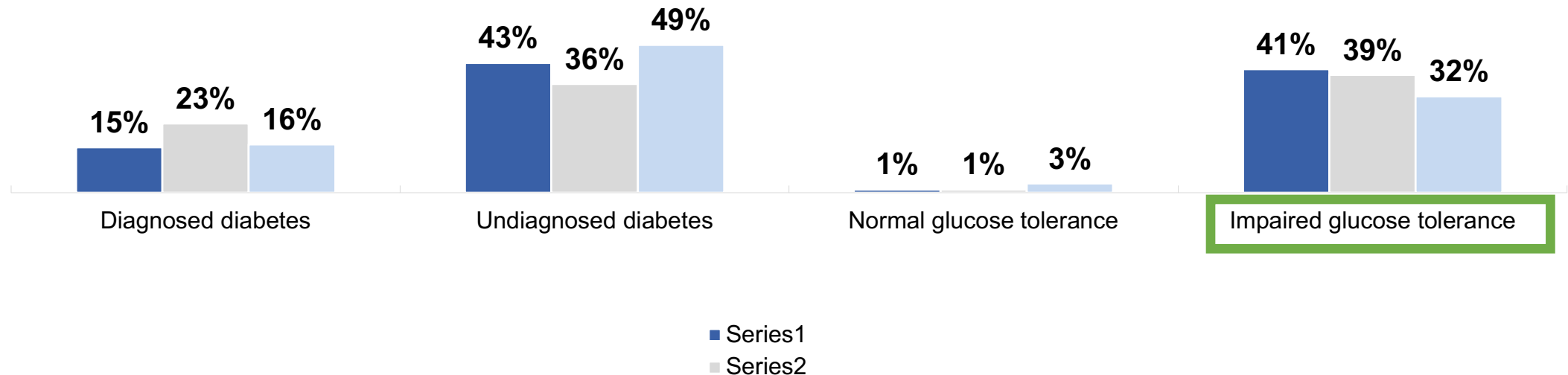
P Value: 0.849 – Not Significant



Most acute MIs occur in patients in which of the following categories?

(Learning Objective 1 and 2)

P Value: 0.766 – Not Significant

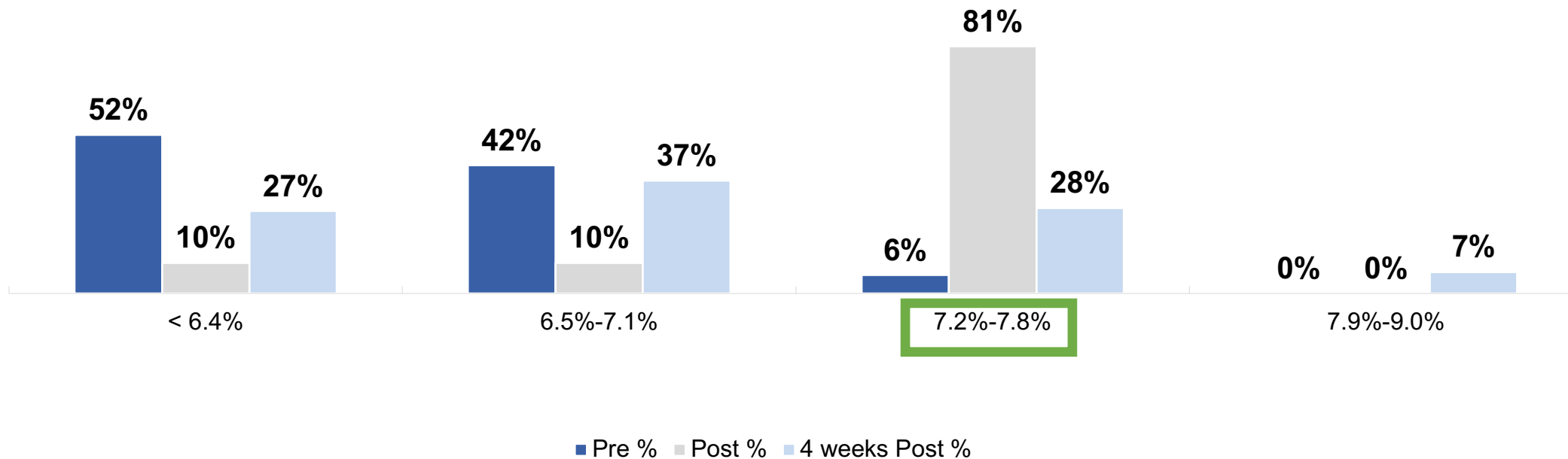


Pre N = 219 Post N = 209 4 weeks N = 158

In patients with heart failure and diabetes, mortality rates are lowest among those in what quintile of A1C?

(Learning Objective 1 and 3)

P Value: <0.001 – Significant

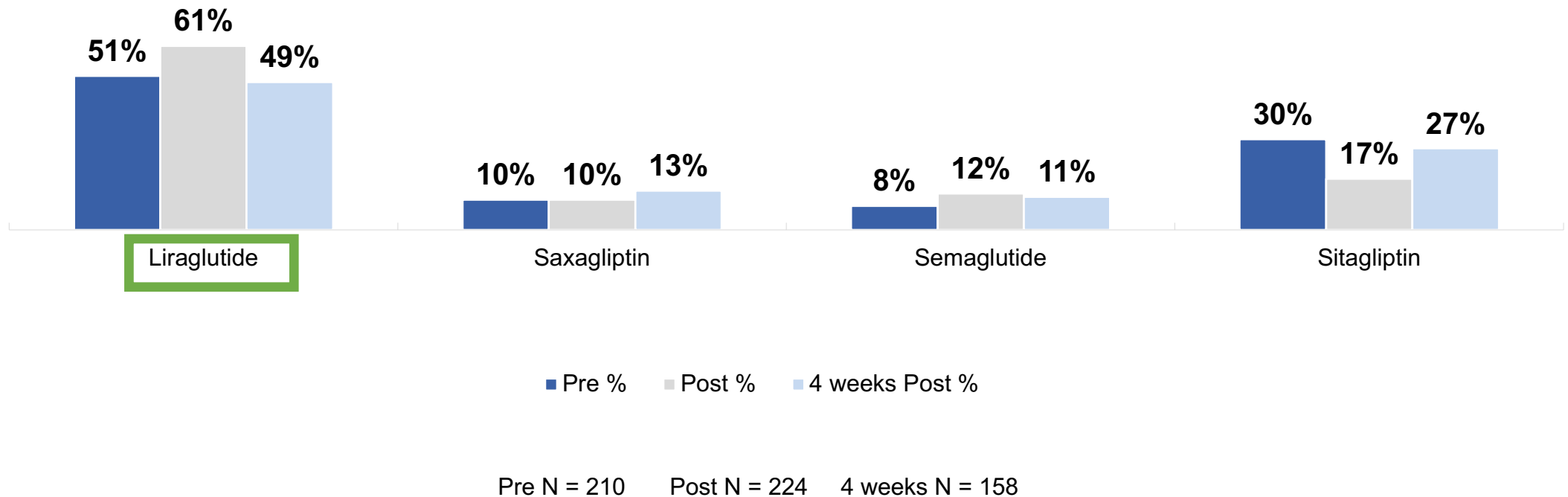


Pre N = 231 Post N = 231 4 weeks N = 158

In major clinical trials, which of the following has been associated with significantly reduced risk for CV death?

(Learning Objective 4)

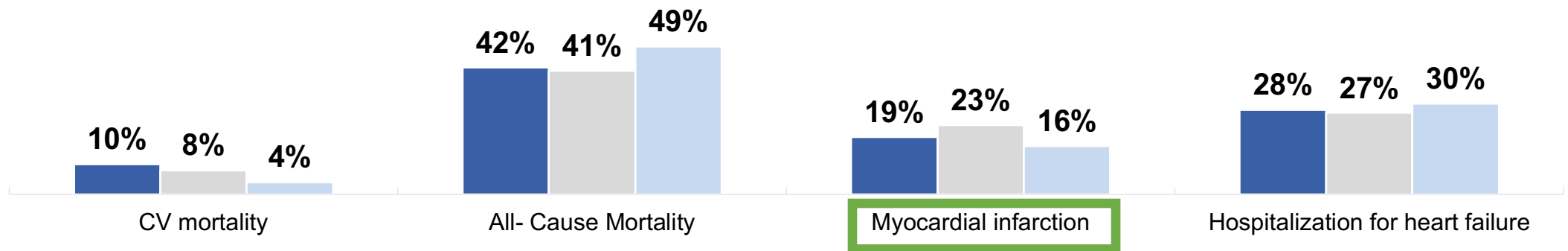
P Value: 0.041 – Significant



The EMPA-REG trial reported significant differences between empagliflozin and placebo in all of the following outcomes, EXCEPT:

(Learning Objective 4)

P Value: 0.312 – Not Significant

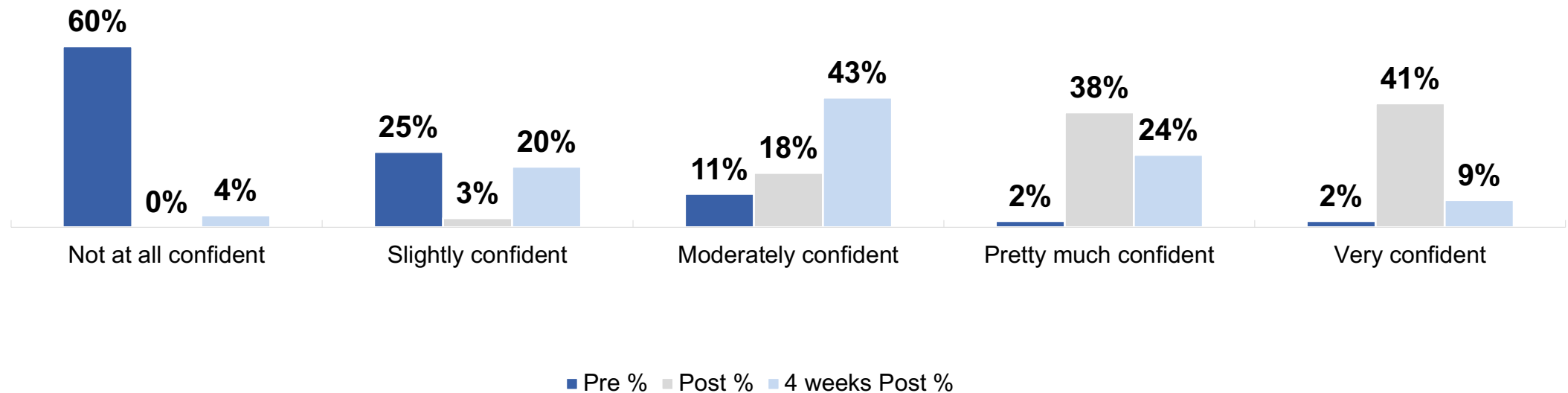


■ Pre % ■ Post % ■ 4 weeks Post %

Pre N = 203 Post N = 206 4 weeks N = 158

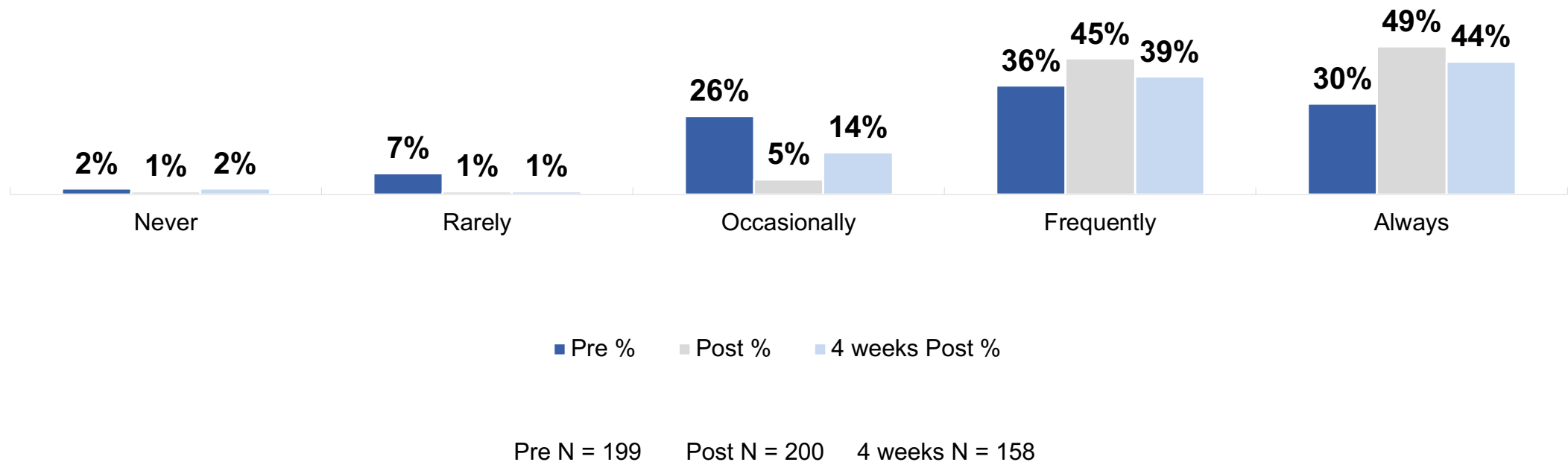
Confidence Assessment

Please rate your confidence in your ability to manage patients with diabetes and high cardiovascular risk:



Pre N = 199 Post N = 245 4 weeks N = 158

How often do/will you intend to assess A1C in patients with, or at high risk for, cardiovascular disease?



Data Interpretation

Understand the impact of heart failure on mortality in diabetes is highest in patients with HBA1C from 7.2-7.8%

Were slightly more aware of the impact of diabetes on the risk for cardiovascular death and healthcare costs, though these changes did persist at 4 weeks

Are more aware of the trial data demonstrating a reduced risk of cardiovascular death among incretin mimetic agents

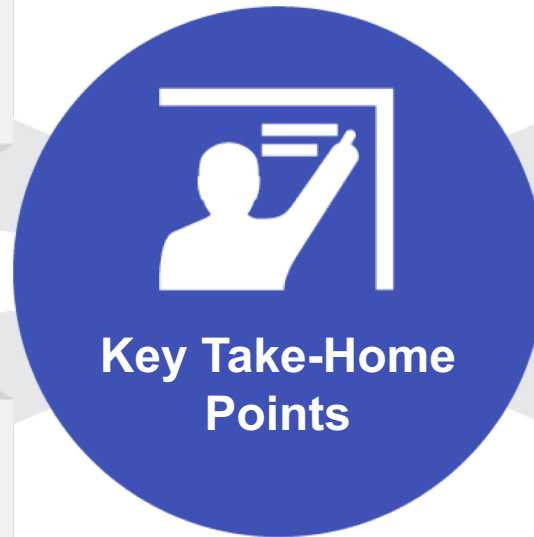
Are more aware that in the EMPA-REG trial, empagliflozin demonstrated improvements in all cause mortality, CV mortality, and hospitalization for heart failure, but not reduction in myocardial infarction. These improvements were not statistically significant.



Data Interpretation

97% stated 4 weeks after program they (sometimes-always) intend to assess A1C in patients with, or at high risk for, cardiovascular disease

Over 500% improvement in confidence in the ability to manage patients with diabetes and high cardiovascular risk 4 weeks after the program.



Key Take-Home
Points

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

65% of attendees report seeing 11 or more patients with diabetes and cardiovascular disease weekly; 80% see > than 5, suggesting a significant number of patients impacted

Persistent Educational Gaps After 4 Weeks

The impact of diabetes on cardiovascular risk

The risk of acute MI in patients with impaired glucose tolerance

The impact of tight HBA1C control on mortality in patients with heart failure and diabetes

Awareness of cardiovascular risk reduction data demonstrated in recent trials of diabetes medications



New Specific Behaviors Reported at 4 weeks



I am more aggressive with glucose testing and control

I monitor patients with diabetes more frequently for CVD risk

I am now utilizing new medications for DM and CVD along with prompt diagnosing and treatment of these conditions

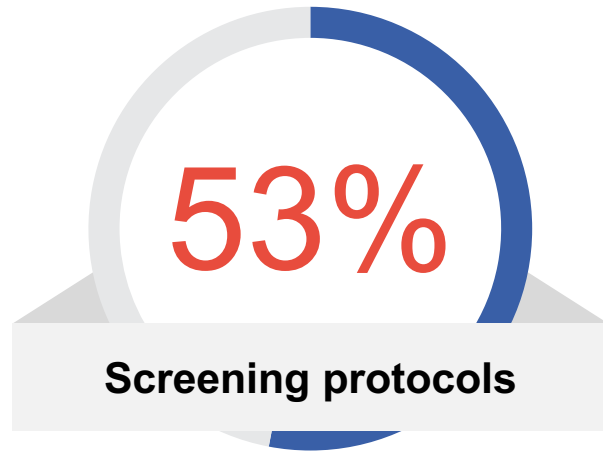
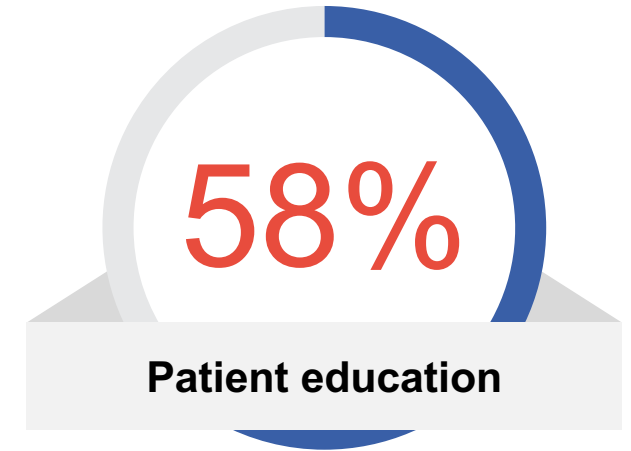
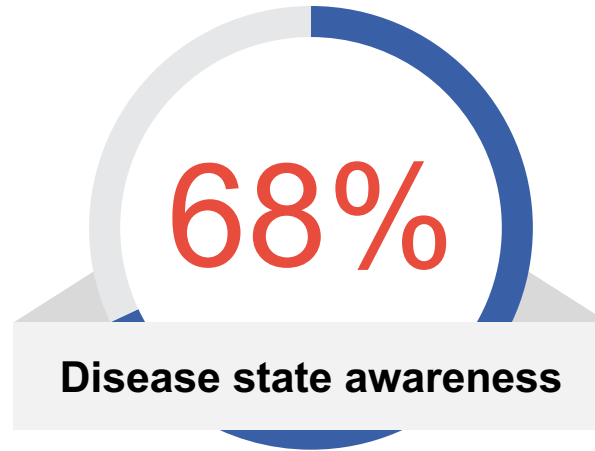
We now require monthly educational meetings regarding patients with diabetes and CVD

I am using more agents with clinically proven CV risk reduction in treatment of diabetes



(4-week Post Assessment N=158)

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



(4-week Post Assessment N=158)

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

