

Emerging Challenges in Primary Care: 2017



GLP-1 Receptor Agonists: New Insights and New Strategies for Successful Long-Term Diabetes Management

Final Outcome Report for 4 Cities - Lilly Grant A-20785

November 6, 2017

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Emerging Challenges in Primary Care

Update 2017 Conference Schedule

Commercial Support

The Emerging Challenges in Primary Care: Update 2017 series of CME activities were supported through educational grants or donations from the following companies:

- Avanir
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- Lilly USA, LLC
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- Shire
- Sunovion



Emerging Challenges in Primary Care

Update 2017 Conference Schedule

| City | Date |
|------------------------|-----------------------|
| Miami, FL | April 29, 2017 |
| Baltimore, MD | May 6, 2017 |
| St. Louis, MO | May 13, 2017 |
| Birmingham, AL* | May 20, 2017 |
| Atlanta, GA | June 3, 2017 |
| Raleigh, NC* | June 10, 2017 |
| Cleveland, OH | June 17, 2017 |
| Tampa, FL | June 24, 2017 |
| Anaheim, CA* | August 12, 2017 |
| San Francisco, CA | August 19, 2017 |
| Troy, MI* | August 26, 2017 |
| Ft. Lauderdale, FL | September 9, 2017 |
| Nashville, TN* | September 16, 2017 |
| San Antonio, TX | September 23, 2017 |
| Uniondale, NY | October 7, 2017 |
| Denver, CO | October 14, 2017 |
| Houston, TX | October 21, 2017 |
| San Diego, CA* | October 28, 2017 |

***Simulcast and Live Conference**
Bolded cities are where the lecture was given
Enduring Webcast launch date – July 27, 2017 – July 26, 2018



Learning Objectives

- 1 Discuss the role of postprandial hyperglycemia in the pathogenesis of diabetic complications.
- 2 Incorporate GLP-1 RA therapy into practice to reduce post-prandial hyperglycemia and decrease glycemic variability.
- 3 Compare GLP-1 RAs for glycemic efficacy and differential impact on postprandial glycemic control.
- 4 Discuss various GLP-1 RA combination strategies with or as a possible alternative to basal insulin in the diabetic patient not at glycemic target.



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

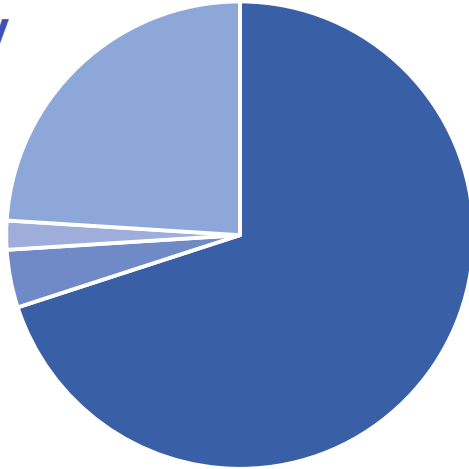
Level 6: Patient Health

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 (Participation)

Practice specialty



- 70% PCPs
- 4% Cardiologist
- 2% Endocrinologist
- 24% Other or did not respond



984

total attendees



4 cities



150

remote simulcast



834

on site



92%

Provide direct patient care

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

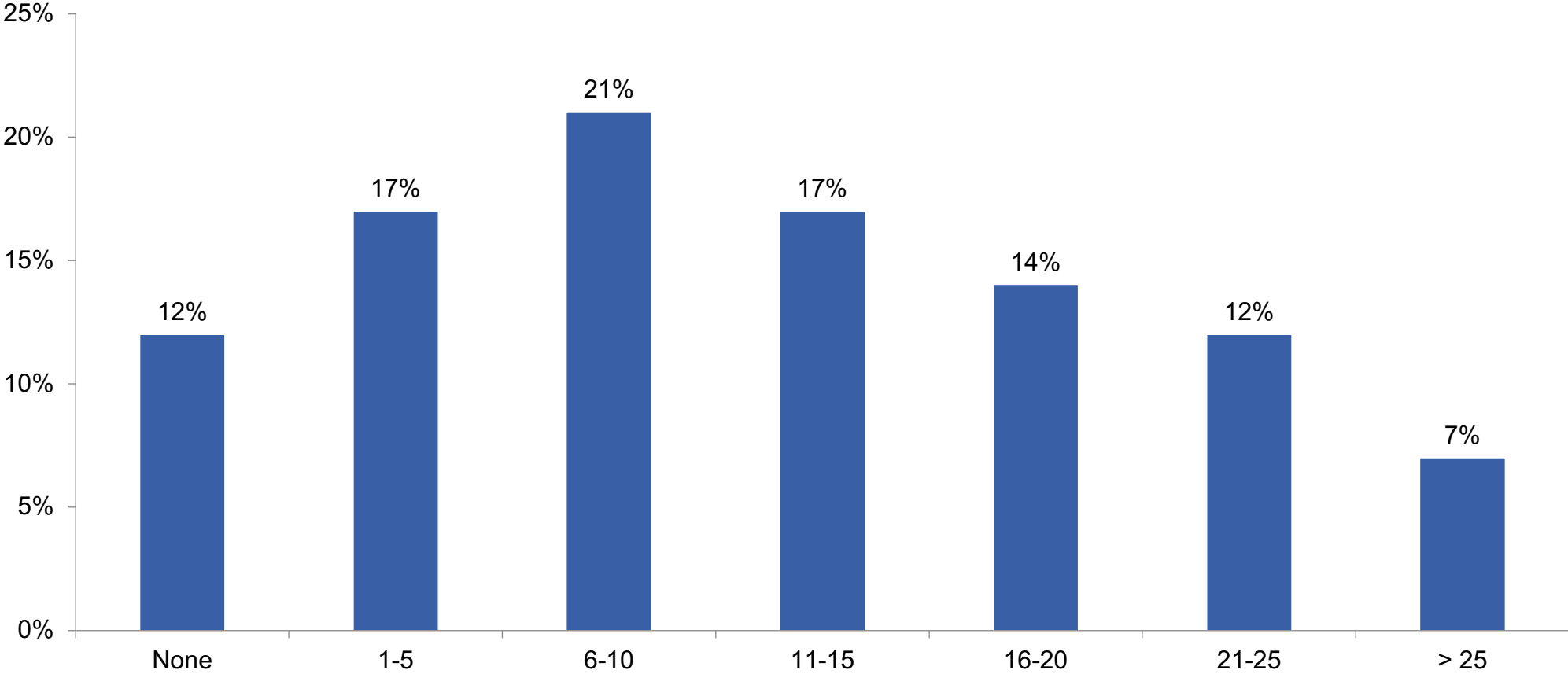


91% said they would implement new strategies that they learned



100% said the program was fair-balanced and unbiased

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



Sample Size: N = 800

Key Findings



Knowledge/Competence

Improvement in all questions regarding the use of GLP-1 RAs in the management patients with diabetes, 3 of which achieved statistical significance.



Confidence

The majority of learners rated themselves as having moderate confidence in their ability to utilize GLP-1 RAs for treating patients with diabetes prior to the activity. Most of the learners showed significant gains in confidence after the program.



Practice

32% improvement in willingness to use GLP-1 receptor agonists in combination with basal insulin after the program (71-94%) which was maintained after 4 weeks



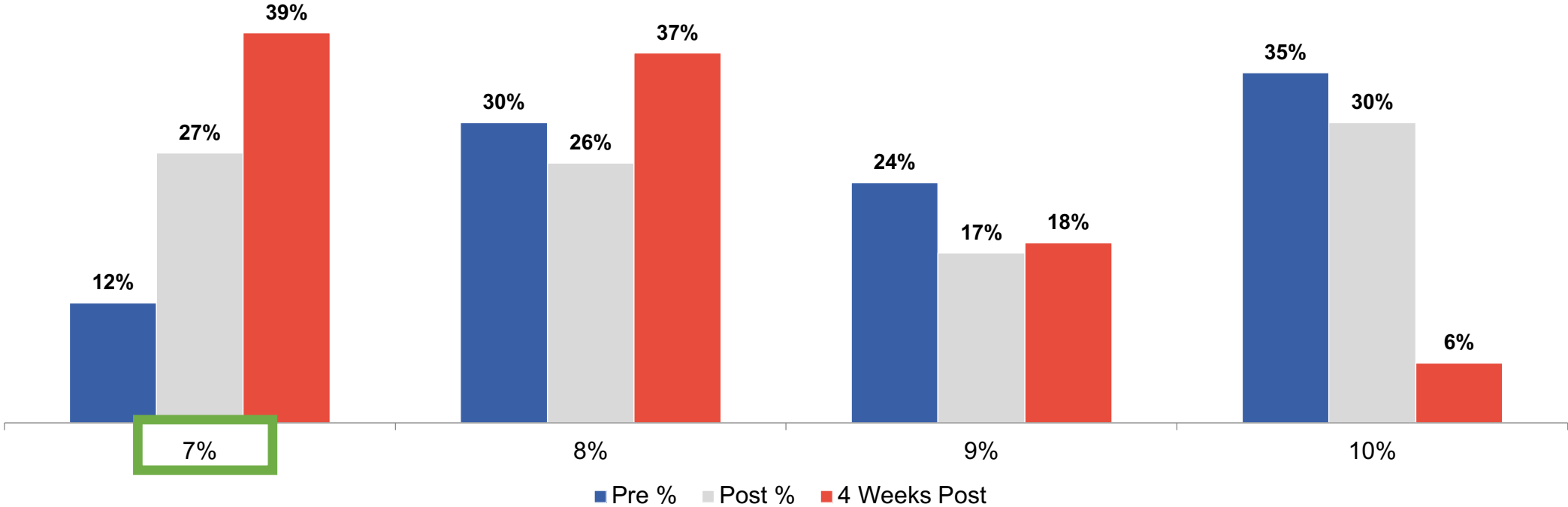
Change of Practice Behavior

94% of learners who responded to our four week survey indicated that they had changed their practice behavior to implement the learning objectives of this program within four weeks after attending the activity.

4 Weeks Post N= 96

At about what level of A1C does postprandial glucose account for >50% of total A1C? (Learning Objective 1)

P Value: <0.001 – Significant

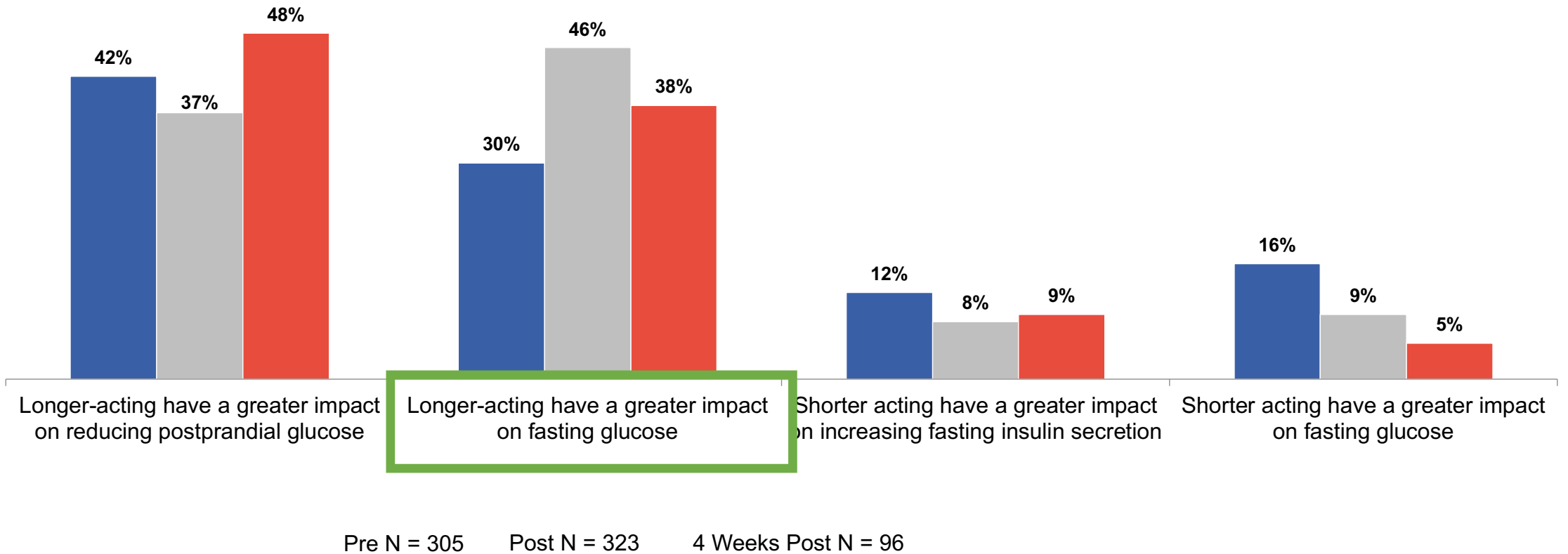


Pre N = 444 Post N = 530 4 Weeks Post N = 96

Comparing the differences between shorter- and longer-acting GLP-1 receptor agonists, which of the following statements is true?

(Learning Objective 2 and 3)

P Value: <0.001 – Significant

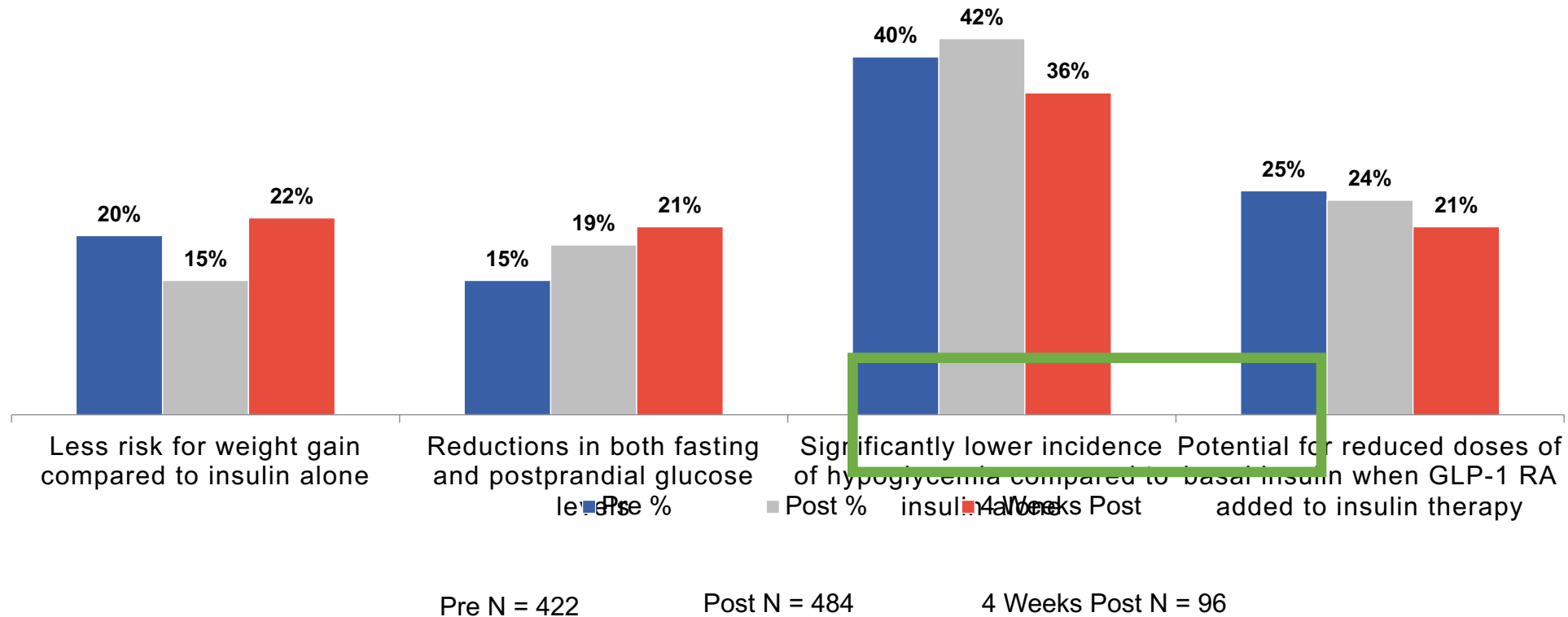


Knowledge Assessment

The advantages of combining GLP-1 receptor agonists with basal insulin include all of the following, EXCEPT:

(Learning Objective 2 and 4)

P Value: 0.605 – Not Significant



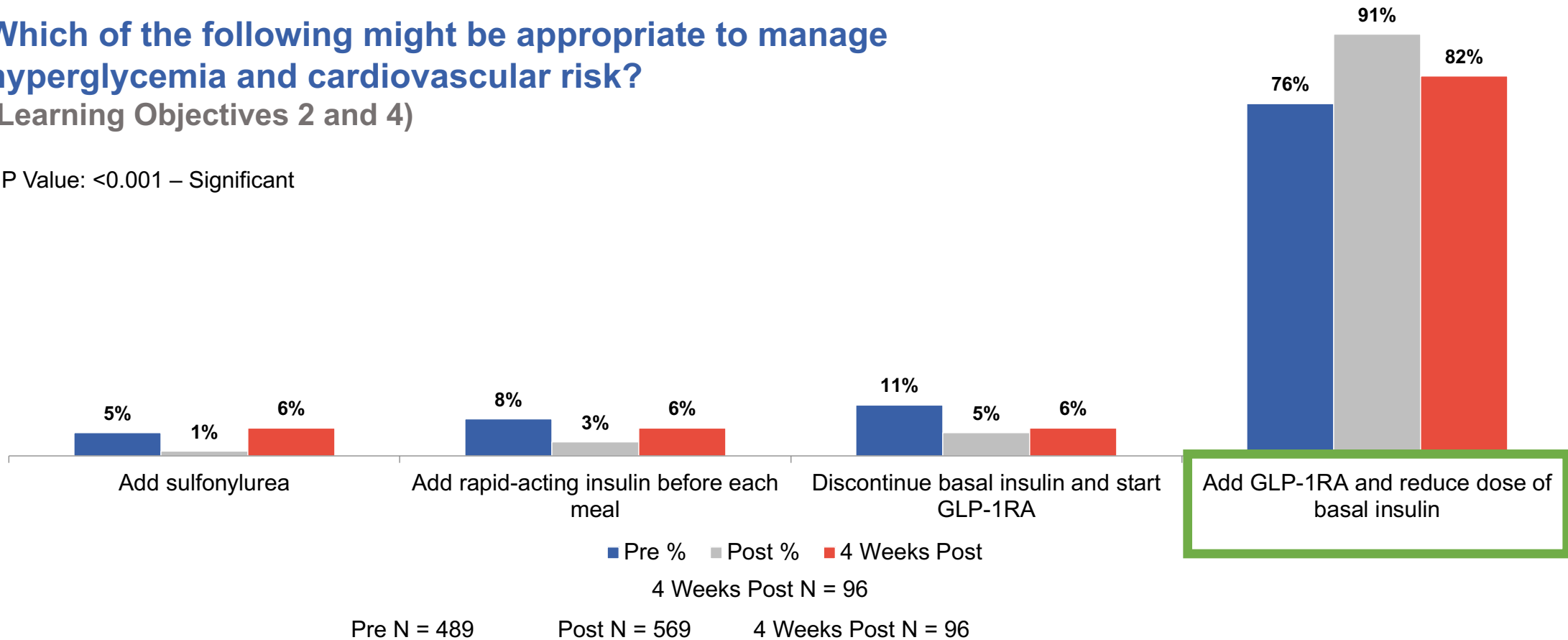
Green highlight indicates no significant difference between pre- and post-testing

Practice Assessment

A 49-year-old man with 10-year history of T2DM and NSTEMI 2 years ago works on a farm and has long active days. His A1C is 7.8%, FBG 70-120 mg/dL, and PPG 180-220 mg/dL. Meds include metformin 1000 mg bid and basal insulin 38 U qam.

Which of the following might be appropriate to manage hyperglycemia and cardiovascular risk?
(Learning Objectives 2 and 4)

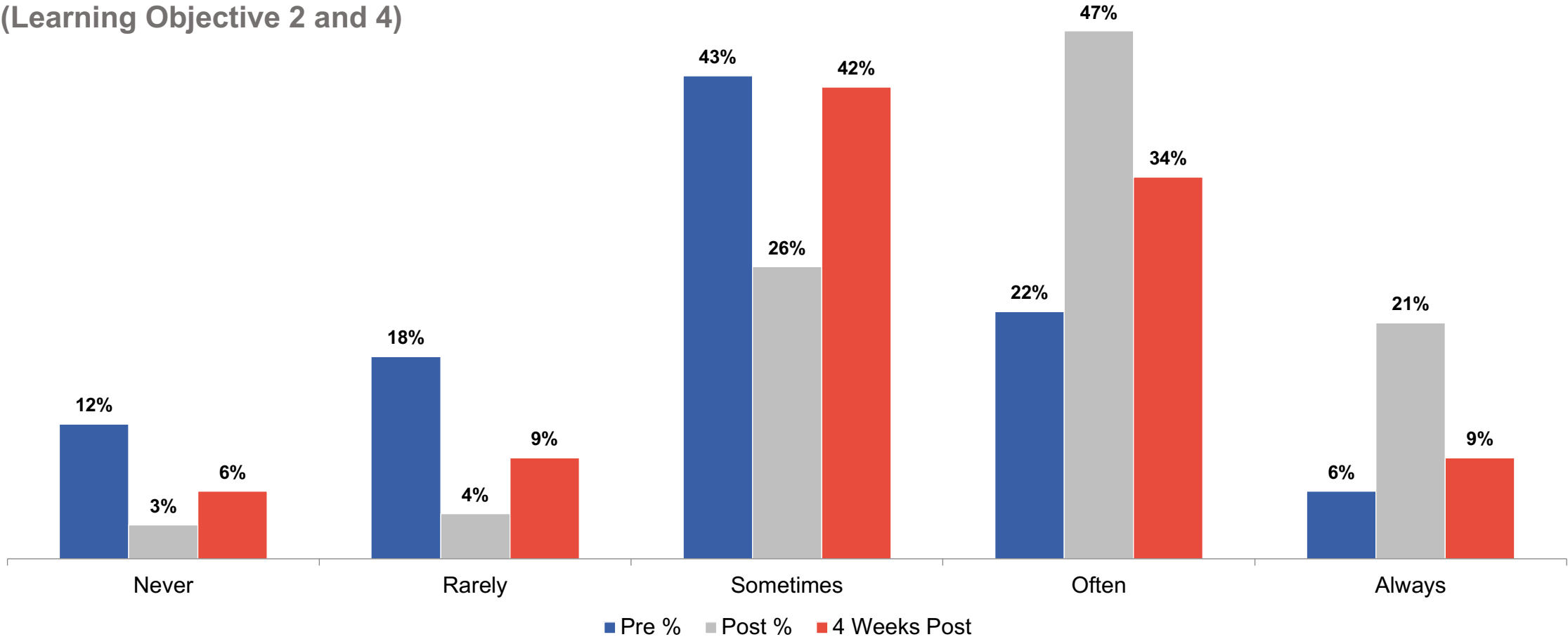
P Value: <0.001 – Significant



Practice Assessment

When adjusting therapy in patients with type 2 diabetes, how often do/will you consider using GLP-1 receptor agonists in combination with basal insulin?

(Learning Objective 2 and 4)

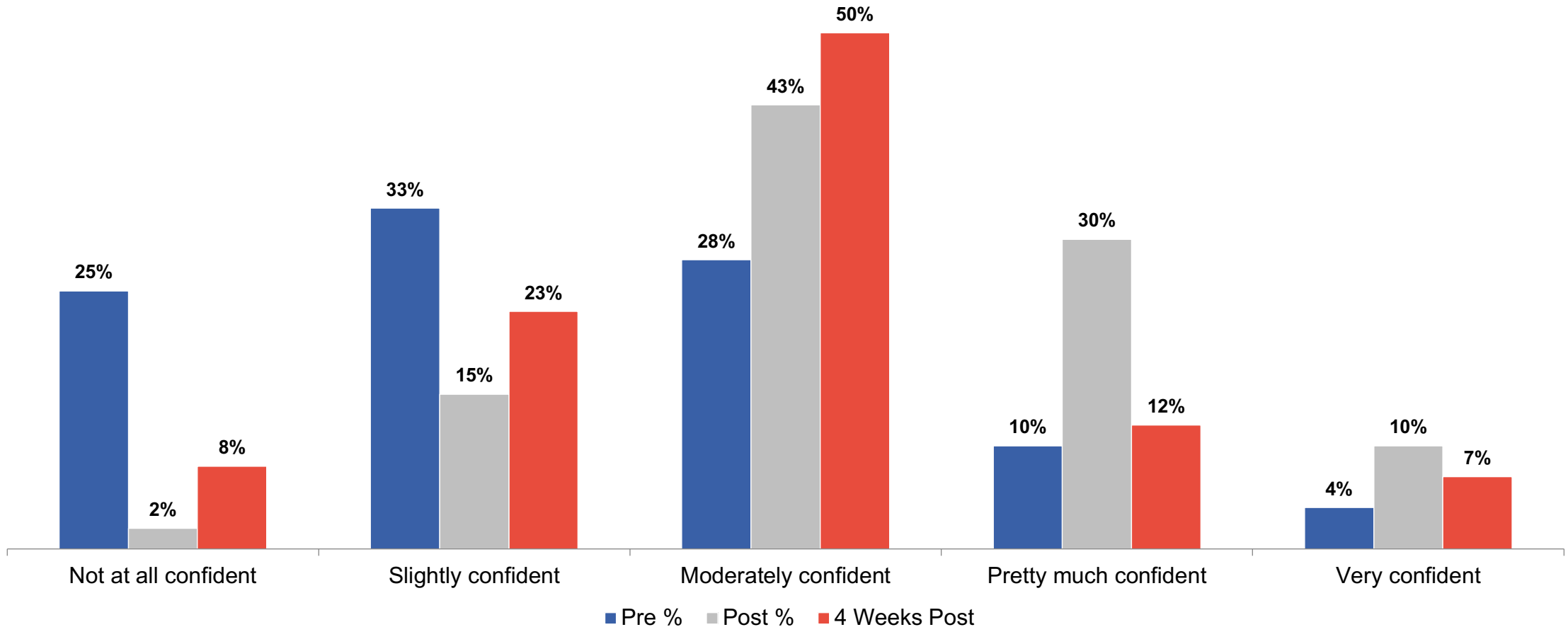


Pre N = 502

Post N = 569

4 Weeks Post N = 96

Please rate your confidence in your ability to use GLP-1RAs in clinical practice:



Pre N = 523 Post N = 526 4 Weeks Post N = 96

Persistent Educational Gaps After 4 Weeks

Impact of post-prandial glucose on A1C

Pharmacologic differences of different GLP-1 RAs and selecting the most appropriate agent based on a patient's physiologic needs

The role of combination insulin and GLP-1 RA therapy

Appropriate strategies of care to reach glycemic targets while minimizing hypoglycemia risk



New Specific Behaviors Reported at 4 weeks



I am optimizing glucose control and reducing the risk of hypoglycemia and weight gain with GLP-1 RAs

I consider GLP-1 RA more often to reduce postprandial hyperglycemia

I am prescribing GLP-1 to patients already on basal insulin to achieve better control of the postprandial glucose

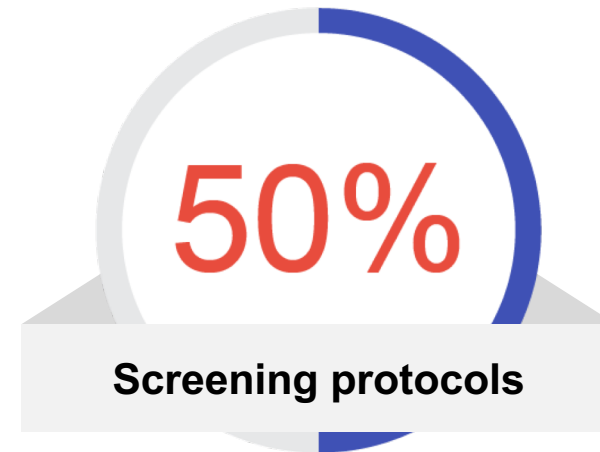
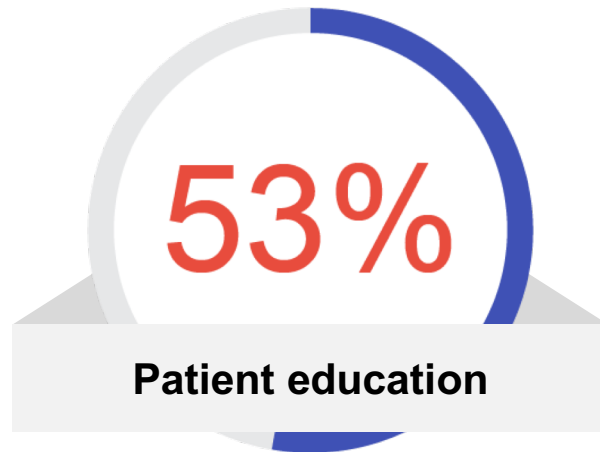
I am more confident using GLP-1 RAs

I have been more aggressive trying to lower A1C by explaining to patients the importance of treatment to decrease end organ damage



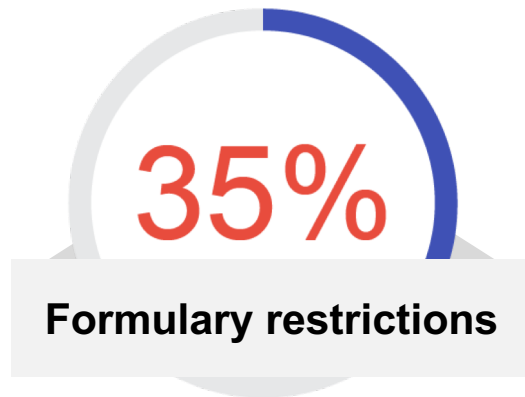
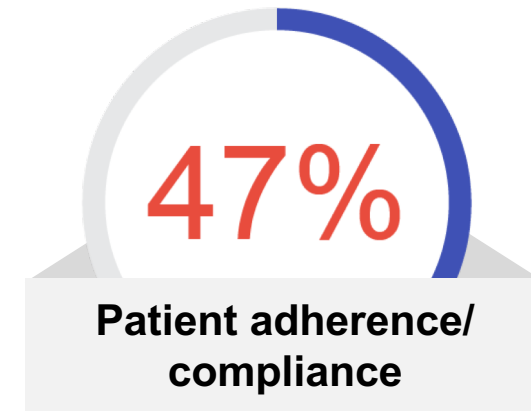
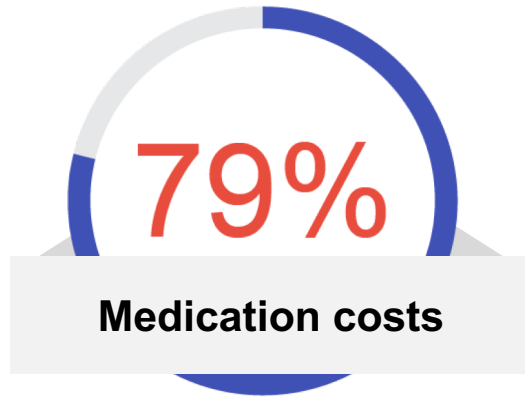
(4-week Post Assessment)

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



(4-week Post Assessment)

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



Participant Educational Gains

Are more aware that post-prandial glucose accounts for more than 50% of A1C it approaches 7%

Recognize that longer acting GLP-1 RAs have a greater effect on fasting than post-prandial glucose



Are more competent in combining a GLP-1 RA and basal insulin to manage diabetes

Understand that combining a GLP-1 RA with basal insulin is more likely to result in a lower incidence of hypoglycemia than utilizing insulin alone.

Key Take-Home Points

85% stated 4 weeks after program they (sometimes-always) consider GLP-1 RAs combined with basal insulin to manage diabetes, improved from 71% prior to the program

69% improvement in confidence levels in the ability to use GLP-1RAs in clinical practice 4 weeks after the activity

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

50% of attendees report seeing 11 or more patients with diabetes weekly; 71% see > than 5, suggesting a significant number of patients impacted



Discussion and Implications

- ❖ Moderate to very confident levels in the ability to use GLP-1RAs in clinical practice rose from 42% to 83% after the activity.
- ❖ At 4 weeks, confidence levels remained above baseline at 69%, an improvement of 64%.
- ❖ Data obtained from participants 4 weeks after the program demonstrated some slippage in learning from the post-test scores for questions targeting learning objectives 2-4.
- ❖ Learners demonstrated improved awareness of the impact of postprandial glucose on A1C as it approaches 7, though post-test scores still remained under 40%.
- ❖ Participants were most competent in using basal insulin with GLP-1 RA therapy to manage hyperglycemia and cardiovascular risk
- ❖ Learners demonstrated persistent gaps in the several areas including:
 - ❖ The integration of GLP-1 RA therapy in practice
 - ❖ Differences between short and long acting GLP-1 RAs and their impact on glycemia

The post-test scores, and intent to change practice patterns regarding the use of GLP-1 Receptor Agonists in the management of diabetes, 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.