



**NACE**

# Emerging Challenges in Primary Care



**LIVE CONFERENCE SERIES**



**The Progression of Type 2 Diabetes: A Rational Approach for Long-term Disease Management**

Final Outcome Report for 9 Live Activities

Grant ID A22879: • October 22, 2018

**NACE**

# Executive Summary

- ❖ This curriculum focused on addressing the need to incorporate disease pathogenesis into treatment strategies, individualize care and promote patient adherence
- ❖ 2,917 attendees in multiple professional specialties were reached via both live onsite and online formats
- ❖ Improvement across all learning domains was noted ranging from 7% to 270%
- ❖ Overall, the program improved the ability of learners to integrate pathophysiology into individualizing therapy for patients with diabetes.



**2,917** total attendees



**8 cities: 1,601** attendees



**2 remote simulcast: 668** attendees

**1 live Virtual Symposium: 648** attendees

## Persistent Educational Gaps

- ❖ Though improvements were observed, learners demonstrated score slippage on the PCA indicating persistent gaps in the several areas including:
  - ❖ Recognizing pathophysiology of diabetes and how to individualize therapy to meet patient needs
  - ❖ When and how to initiate insulin therapy
  - ❖ Incorporating ADA/AACE guidelines into practice

The post-test scores, and intent to change practice patterns regarding the management of patients with Diabetes, 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



# Emerging Challenges in Primary Care 2018

## 17<sup>th</sup> Annual Regional and Online CME Conference Series

### Curriculum Patient Impact

In the evaluation, learners (N = 2,917) were asked to report how many patients with type 2 diabetes they see in any clinical setting per week by selecting a range. The resulting distribution of learner responses was then extrapolated to reflect the total number of learners who participated in the onsite and online meetings.

The findings reveal that this education has the potential to impact

**1,344,512**

patients on an annual basis.

22,624–29,088 patients  
on a weekly basis

22,624–  
29,088

## Course Director

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### **Mark Stolar, MD**

Associate Professor of Clinical Medicine  
Feinberg School of Medicine  
Northwestern University  
Chicago, IL

## Activity Planning Committee

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Stephen Webber

Sandy Bihlmeyer M.Ed

Alan Goodstat, LCSW

Sheila Lucas, CWEP

## Faculty

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Principal Investigator, Center for Diabetes and  
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# Emerging Challenges in Primary Care

Update 2018 Conference Schedule

## Commercial Support

The Emerging Challenges in Primary Care: Update 2018 series of CME activities were supported through educational grants or donations from the following companies:

- ❖ Actelion Pharmaceuticals US, Inc
- ❖ AstraZeneca Pharmaceuticals LP
- ❖ ER/LA Opioid Analgesic REMS Program Companies
- ❖ Lilly USA
- ❖ Novo Nordisk Inc
- ❖ Sanofi Genzyme and Regeneron Pharmaceuticals

# Curriculum Overview

## 8 Accredited Live Regional Symposia

April 28, 2018 – August 11, 2018



## Enduring CME Symposium Webcast

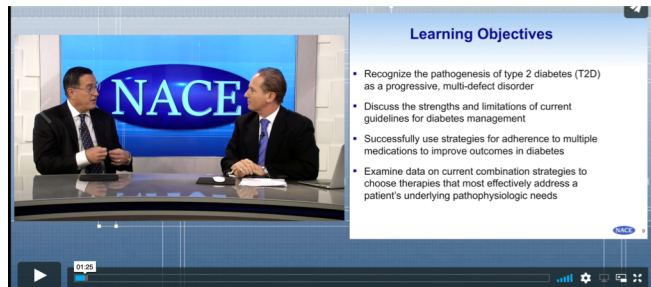
Launch Date: August 15, 2018

End Date: August 14, 2019

Available at: <http://bit.ly/NACE2018ECMM>



**Speaker**  
Mark Stolar, MD  
Associate Professor of Clinical Medicine  
Feinberg School of Medicine  
Northwestern University  
Chicago, IL



### Learning Objectives

- Recognize the pathogenesis of type 2 diabetes (T2D) as a progressive, multi-defect disorder
- Discuss the strengths and limitations of current guidelines for diabetes management
- Successfully use strategies for adherence to multiple medications to improve outcomes in diabetes
- Examine data on current combination strategies to choose therapies that most effectively address a patient's underlying pathophysiologic needs


## 1 Accredited Live Virtual Symposium:

June 23, 2018



## 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

#### 2018 Clinical Highlights

#### The Progression of Type 2 Diabetes: A Rational Approach for Long Term Disease Management

**Faculty**  
**Rodolfo J. Galindo, MD**  
Assistant Professor of Medicine  
Emory University School of Medicine  
Principal Investigator, Center for Diabetes and Metabolism Research  
Division of Endocrinology, Diabetes and Metabolism  
Emory University Hospital Midtown  
Medical Chair, Hospital Diabetes Taskforce  
Emory Healthcare System

- Type 2 diabetes is a complex multimechanistic disease with progressive loss of beta cell function unless addressed by therapy.
- Metformin while effective in lowering glucose is monomechanistic when used as monotherapy and therefore slows but does not effectively prevent disease progression.
- Glycemic legacy, both good from tight control or bad from poor control has a significant impact on long term

# Learning Objectives

- 1 Recognize the pathogenesis of type 2 diabetes (T2D) as a progressive, multi-defect disorder
- 2 Discuss the strengths and limitations of current guidelines for diabetes management
- 3 Successfully use strategies for adherence to multiple medications to improve outcomes in diabetes
- 4 Examine data on current combination strategies to choose therapies that most effectively address a patient's underlying pathophysiologic needs



# 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



**2917** total attendees



8 cities: **1601** attendees



2 remote simulcast: **668** attendees



1 live Virtual Symposium: **648** attendees



**94%**

Provide direct patient care



# Emerging Challenges in Primary Care

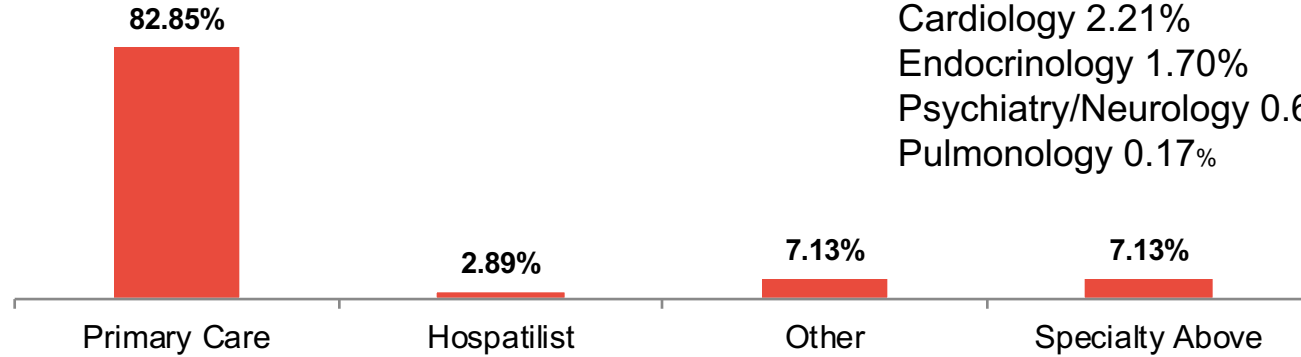
Update 2018 Conference Schedule

City	Date	Attendees
Miami, FL	4/28/18	179
Baltimore, MD	5/5/18	218
Baltimore, MD/Simulcast	5/5/18	372
St. Louis, MO	5/12/18	129
Birmingham, AL	5/19/18	195
Atlanta, GA	6/2/18	233
Atlanta, GA/Simulcast	6/2/18	296
Tampa, FL	6/9/18	275
Raleigh, NC	6/16/18	168
Virtual Symposium	6/23/18	648
Anaheim, CA	8/11/18	204



# Level 1: Demographics

## Specialty

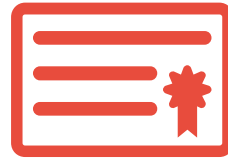
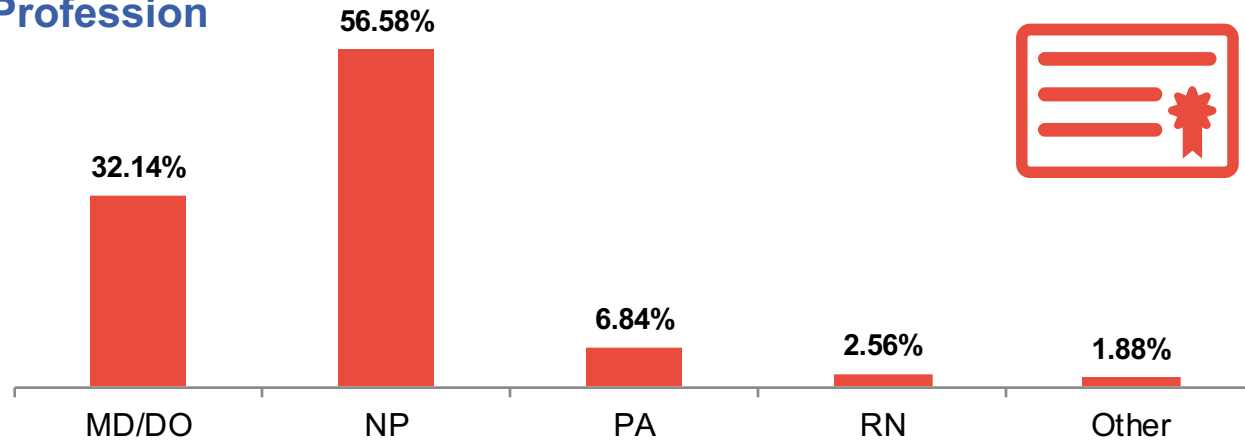


## Specialists:

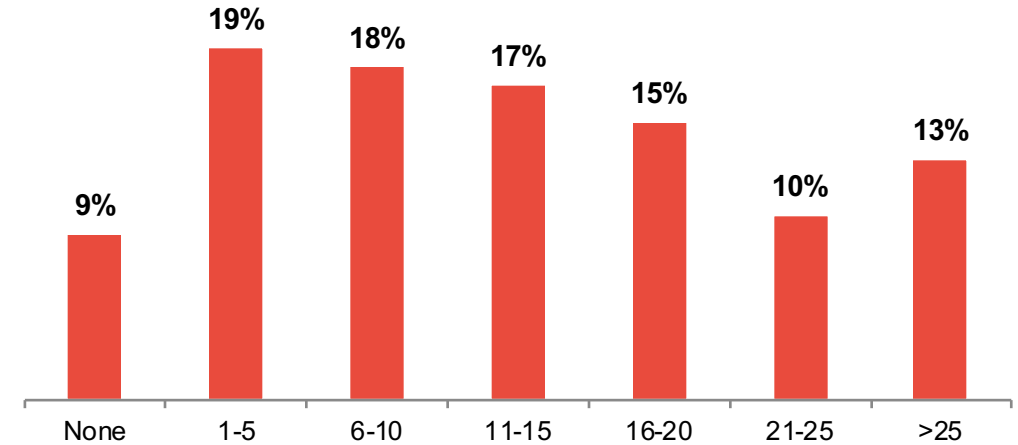
Emergency/critical 2.38%  
Cardiology 2.21%  
Endocrinology 1.70%  
Psychiatry/Neurology 0.68%  
Pulmonology 0.17%

Patient Care Focus: 94%

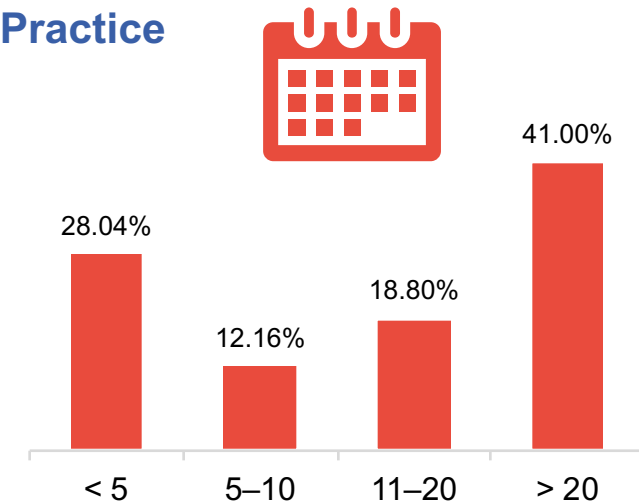
## Profession



## Patients with Diabetes 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



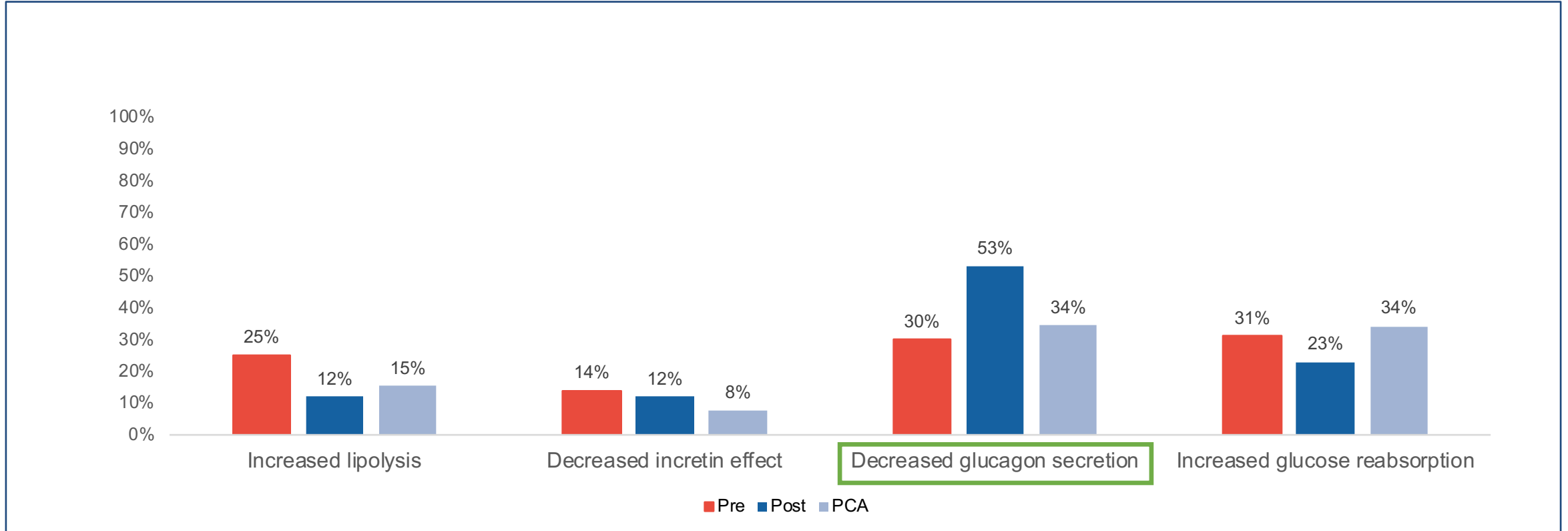
**91%** said they would implement new strategies that they learned



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

# All of the following are pathophysiologic mechanisms of T2D, EXCEPT: (Learning Objective 1)

P Value: <0.05



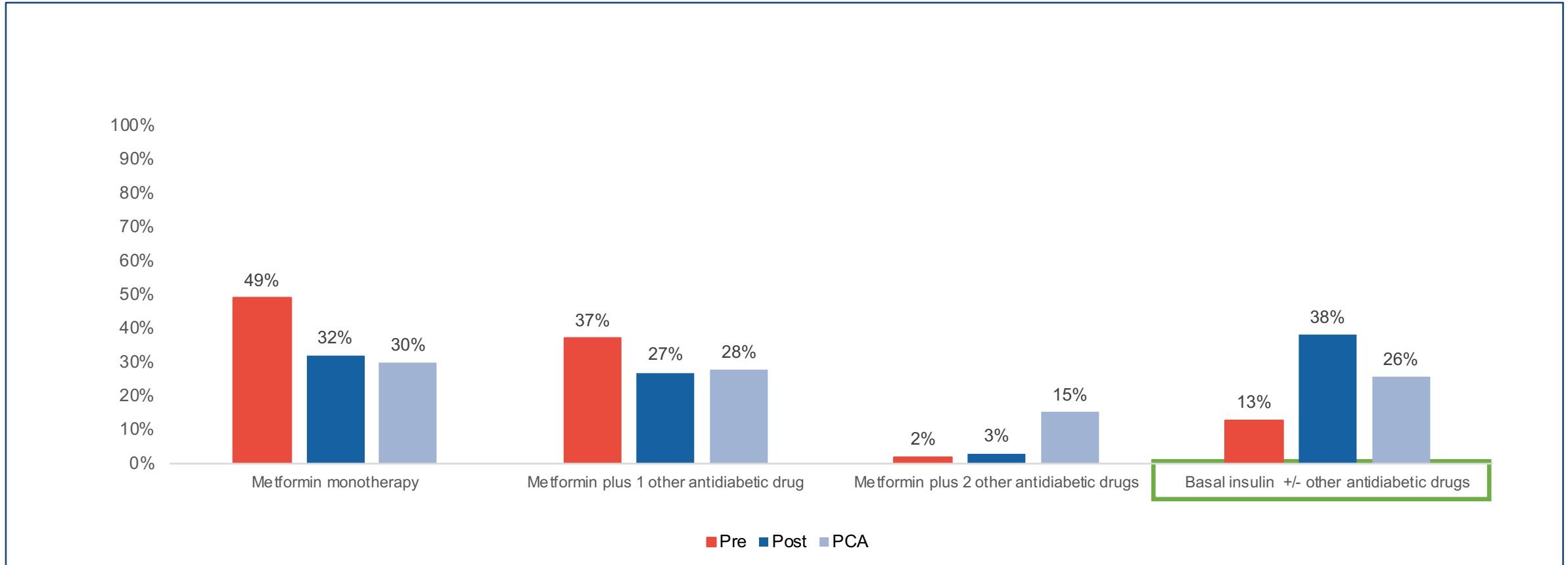
N= Pre: 1232 Post: 1326 PCA: 612

Pre-Post Change 77%  
Pre-PCA Change 13%

# According to current AACE and ADA guidelines, which therapy should be considered for a patient with symptoms of hyperglycemia at diagnosis of T2D?

(Learning Objective 2 and 3)

P Value: <0.05



N= Pre: 1367 Post: 1440 PCA: 657

Pre-Post Change 192%  
Pre-PCA Change 100%



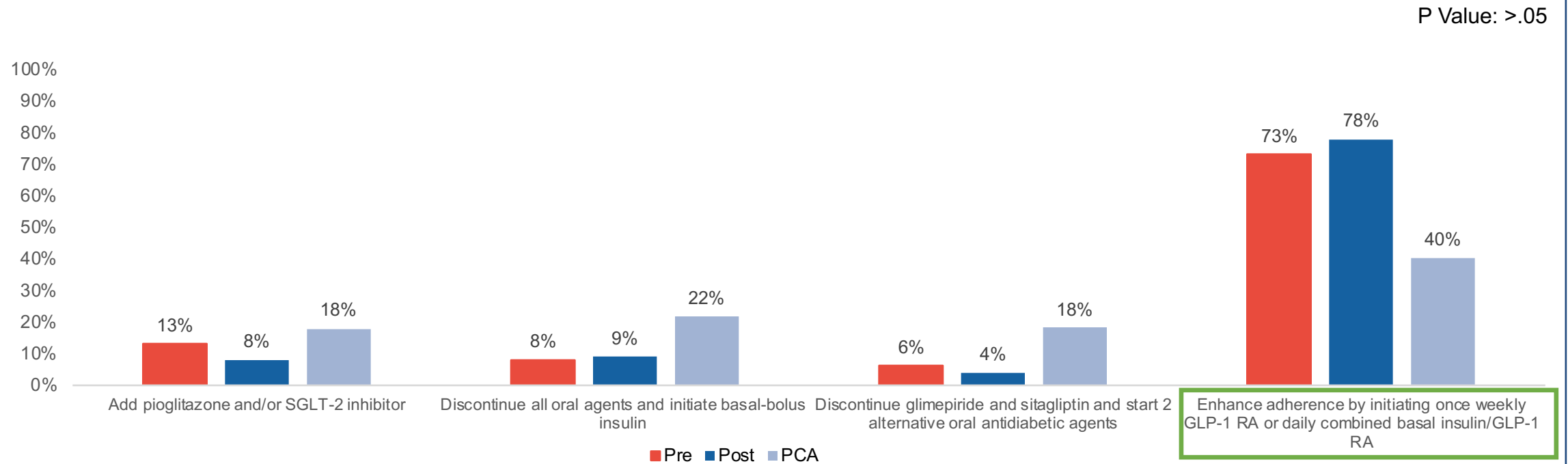
## Competence

### 39 y/o female with 4-year hx T2D.

- Initially treated with metformin 1000 mg bid, then added glimepiride 4 mg, and finally sitagliptin 100 mg.
- Limited exercise, poor diet affected by what kids will eat.
- At last 2 visits, A1C 8.4% and weight stable at 238 lbs. Average FBG 130 mg/dL.
- Doesn't check later in the day because those numbers were too high when she did check.

### What might be an appropriate next step for Shavante?

(Learning Objective 3 and 4)



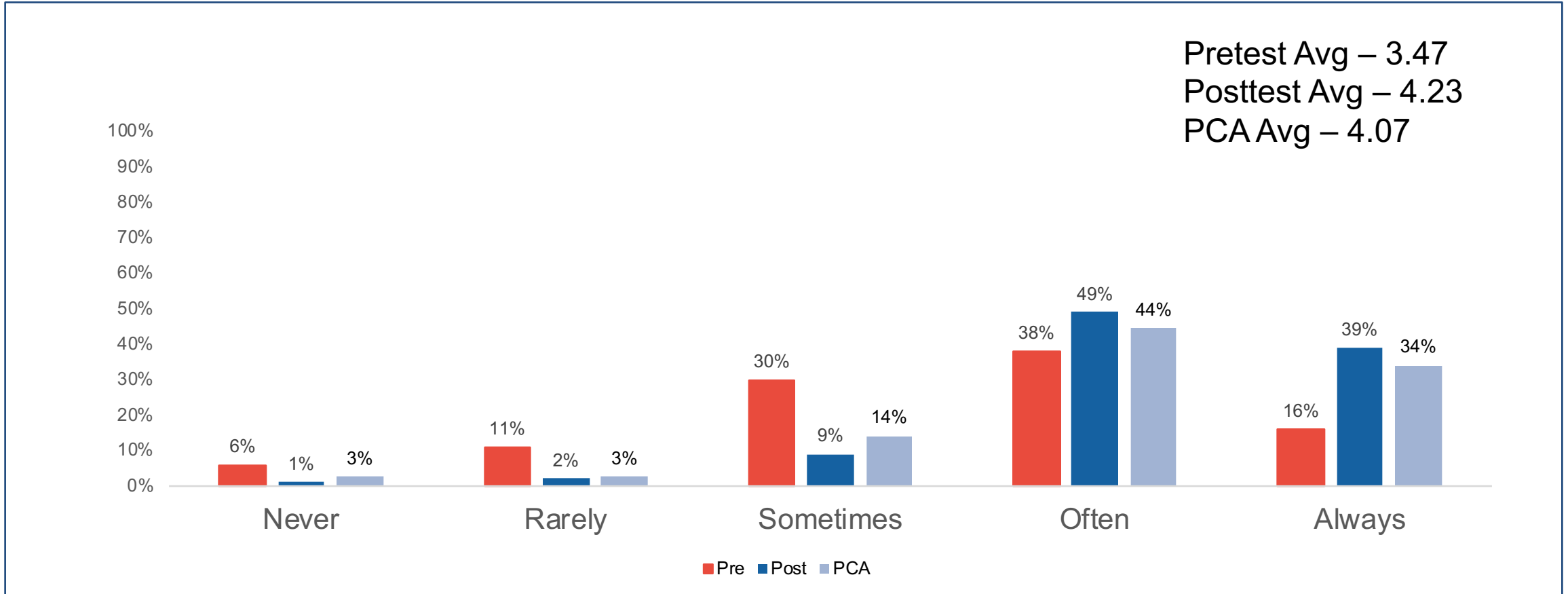
N= Pre: 1324 Post: 1363 PCA: 656

Pre-Post Change 7%  
Pre-PCA Change -45%

## Practice Assessment

### How often do/will you select antidiabetic therapy based on its mechanism of action?

(Learning Objective 1, 2 3, and 4)



N= Pre: 1288

Post: 1487

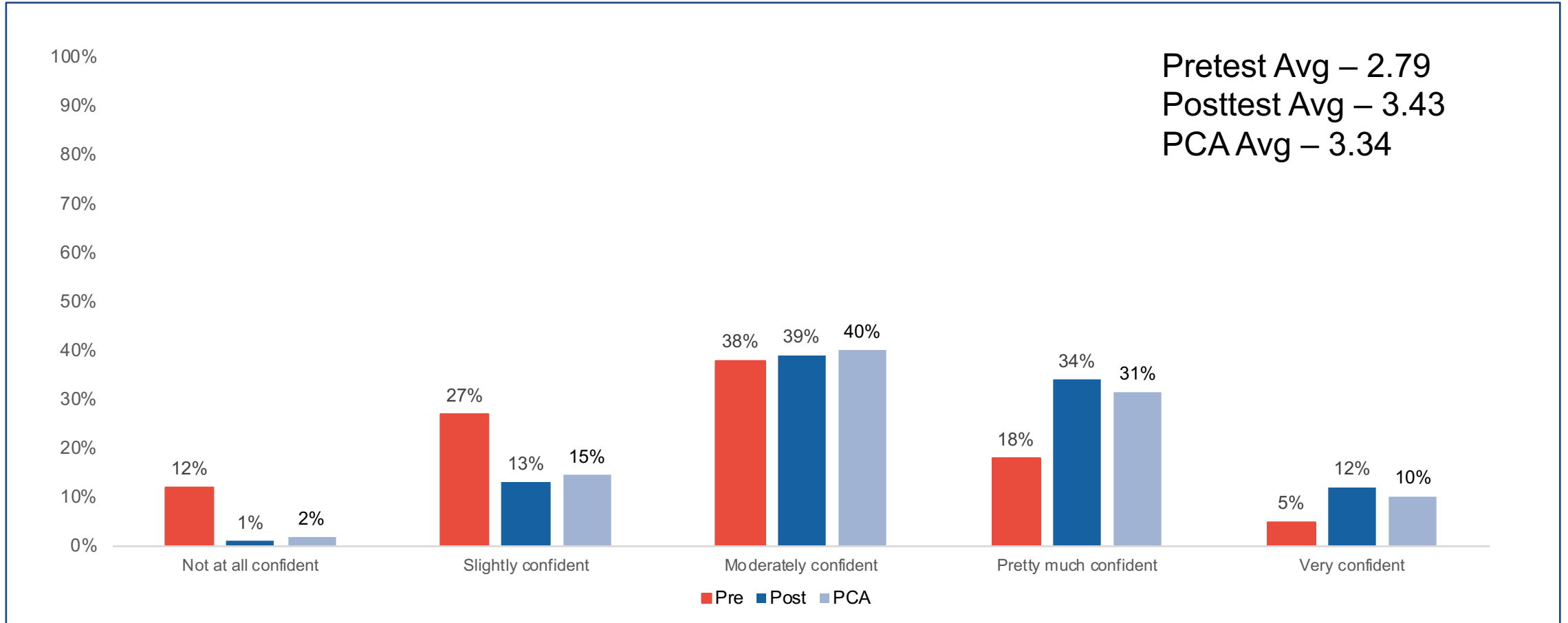
PCA: 654

Pre-Post Change 22%

Pre-PCA Change 17%

## Confidence Assessment

Please rate your confidence in your ability to manage T2DM as a multi-defect disorder with individualized combination therapy:



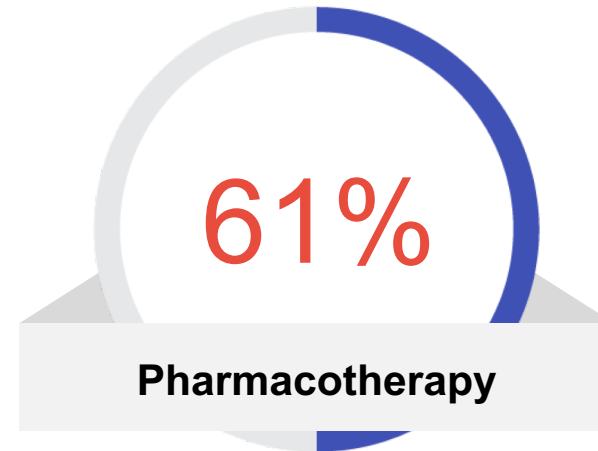
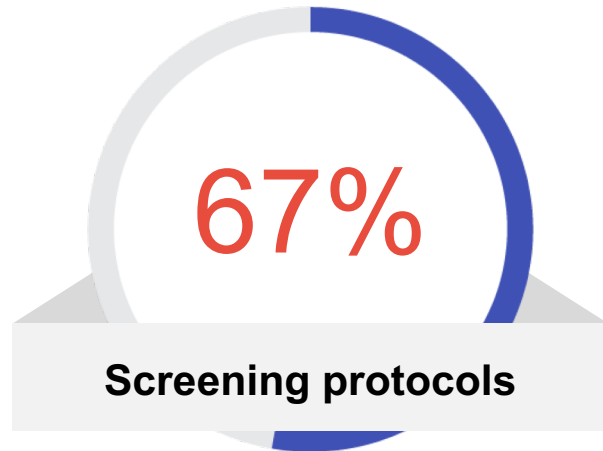
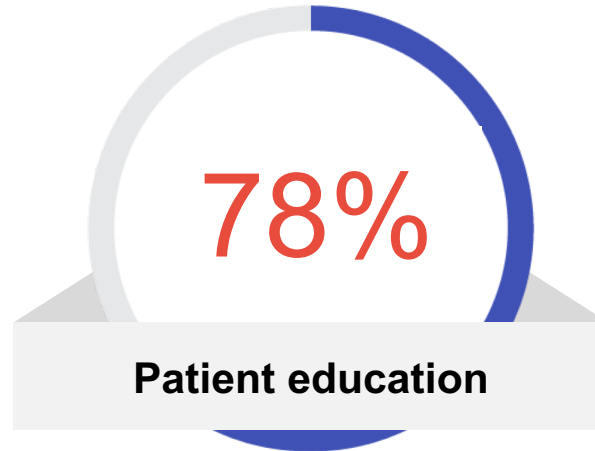
N= Pre: 1290 Post: 1471 PCA: 654

Pre-Post Change 23%  
Pre-PCA Change 20%

(4-week Post Assessment)

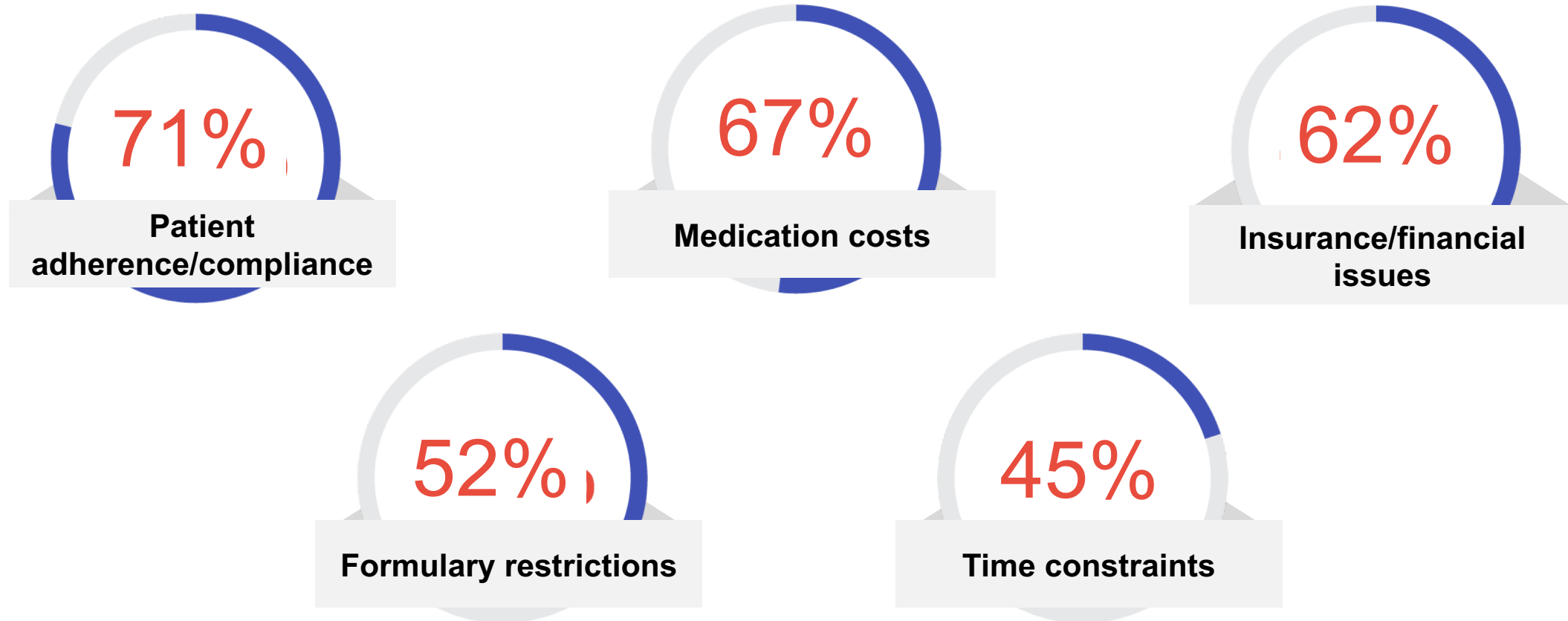
**Please select the specific areas of skills, or practice behaviors, you have improved regarding the treatment of patients with diabetes since this CME activity. (Select all that apply.)**

N=516



(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)**



# Persistent Educational Gaps After 4 Weeks

The pathophysiologic mechanisms of diabetes  
and targets of therapy

Incorporating ADA and AACE guidelines into practice and the initial  
treatment of symptomatic patients

Individualizing diabetes therapy using a pathophysiologic approach  
that can also enhance patient adherence

When and how to initiate insulin therapy



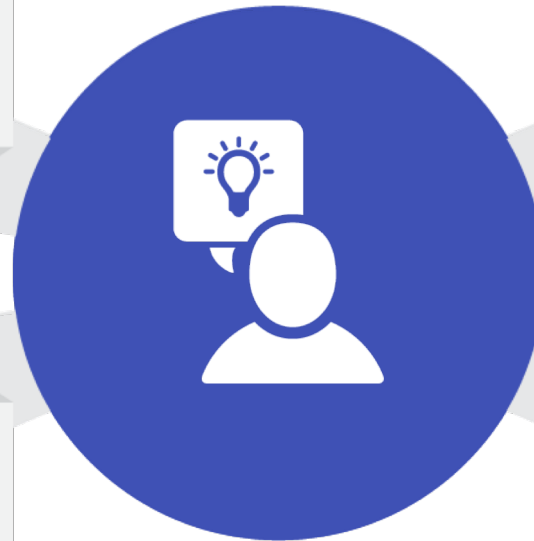
# Participant Educational Gains

Increased recognition of the pathophysiologic mechanisms of Type 2 Diabetes

Increased awareness that according to ADA and AACE guidelines, basal insulin should be considered for patients with symptomatic hyperglycemia at diagnosis

Are more competent in individualizing diabetes therapy using a pathophysiologic approach that can also enhance patient adherence

23% increased confidence in ability to manage T2DM as a multi-defect disorder with individualized combination therapy, that was maintained at 4 weeks



# Key Take-Home Points

22% increased intent to select antidiabetic therapy based on its mechanism of action

94% of learners are engaged in direct patient care

After 4 weeks, participants reported the following improved skills regarding the treatment of patients with diabetes: 79% disease state awareness, 78% patient education and 70% diagnostic evaluation

Approximately 1.3 million patients will be affected by this curriculum

