



NACE

LIVE CONFERENCE SERIES



Individualizing Patient Care in COPD: Recognizing and Treating Alpha-1 Antitrypsin Deficiency

Final Outcome Report for 2 Live Activities

Grant ID 3368: • January 31, 2019

NACE

Executive Summary

- ❖ This curriculum focused on the pathophysiology of AAT, the need to screen patients at increased risk for having it, especially those with COPD, and how to appropriately incorporate therapies into the care of these patients.
- ❖ 729 attendees in multiple professional specialties were reached via both live onsite and online formats
- ❖ Improvement across all learning domains was noted ranging from 14% to 89%
- ❖ Overall, the program improved the ability of learners to screen patients at risk for AATD, and recommend appropriate treatment options



Persistent Educational Gaps

- ❖ Though improvements were observed, learners demonstrated score slippage on the PCA indicating persistent gaps in the several areas including:
 - ❖ Mechanism of action of alpha-1 antitrypsin and the impact of its deficiency on lung tissue
 - ❖ Effective screening strategies and laboratory testing to diagnose AATD
 - ❖ Benefits of AAT replacement therapy as demonstrated in Registry or RCTs

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

Course Director

Franck Rahaghi, MD, MHS, FCCP

Director of Advanced Lung Disease Clinic

Director, Pulmonary Hypertension Clinic

Head of Alpha-1 Foundation Clinical Resource Center

Chairman, Dept. of Pulmonary and Critical Care

Cleveland Clinic Florida

Weston, FL

Activity Planning Committee

Gregg Sherman, MD

Michelle Frisch, MPH, CCMEP

Stephen Webber

Sandy Bihlmeyer M.Ed

Alan Goodstat, LCSW

Daniela Hiedra

Deborah Paschal, CRNP

Faculty

Franck Rahaghi, MD, MHS, FCCP

Director of Advanced Lung Disease Clinic

Director, Pulmonary Hypertension Clinic

Head of Alpha-1 Foundation Clinical Resource Center

Chairman, Dept. of Pulmonary and Critical Care

Cleveland Clinic Florida

Weston, FL



Clinical Updates for Nurse Practitioners and Physician Assistants: 2018

Commercial Support

The Clinical Updates for Nurse Practitioners and Physician Assistants: 2018 series of CME activities were supported through educational grants or donations from the following companies:

- ❖ Actelion Pharmaceuticals US, Inc
- ❖ Sanofi US
- ❖ Grifols
- ❖ Novartis Pharmaceuticals Corporation
- ❖ GlaxoSmithKline
- ❖ Ferring Pharmaceuticals, Inc.

Curriculum Overview

**1 Accredited Live Regional Symposia
November 10, 2018**



**1 Accredited Live Virtual Symposium:
November 17, 2018**



Clinical Highlights eMonograph

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

Annual Live Symposia Series
Clinical Updates for Nurse Practitioners & Physician Assistants

NACE

LIVE CONFERENCE SERIES

**Individualizing Patient Care in COPD:
Recognizing and Treating Alpha-1 Antitrypsin Deficiency**

Faculty

Franck Rahaghi, MD, MHS, FCCP
Director of Advanced Lung Disease Clinic
Director, Pulmonary Hypertension Clinic
Chairman, Dept. of Pulmonary and Critical Care
Cleveland Clinic Florida
Weston, FL

- Alpha-1 Antitrypsin deficiency (AATD) is the most prevalent potentially fatal genetic disorder in the United States.
- Approximately one of out every 13 Americans is a carrier for the disease.
- 1-3% of all patients with COPD have Alpha-1 Antitrypsin Deficiency.
- It is impossible to distinguish Alpha-1 patients from average COPD patients; therefore, all COPD patients need to be screened once.
- It is important to ask about family history in COPD patients, but to recessive nature of the condition, generations may be symptom free.
- The American Thoracic Society released their guidelines in 2003 and GOLD guidelines were released 2017 which recommend screening for AAT in all COPD patients.
- Since more than 70% of COPD patients are cared for by primary care clinicians, screening for AATD needs to occur in both primary care and pulmonary settings.
- Screening can be in the form of AAT levels alone, or better yet, with phenotyping or genotyping so that counseling can be given to carriers.

Learning Objectives

- 1 Discuss the pathophysiology of alpha-1 antitrypsin deficiency (AATD) and its impact on chronic obstructive pulmonary disease (COPD) risk
- 2 Interpret the clinical significance of laboratory test results for AATD
- 3 Discuss treatment options for AATD and latest GOLD guideline recommendations
- 4 Discuss strategies to enhance detection and treatment of AATD in clinical practice

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



656 total attendees



1 city: **129** attendees



1 Live Virtual Symposium: **527** attendees

City	Date	Attendees
Miami, FL	11/10/18	129
Virtual Program	11/17/18	527

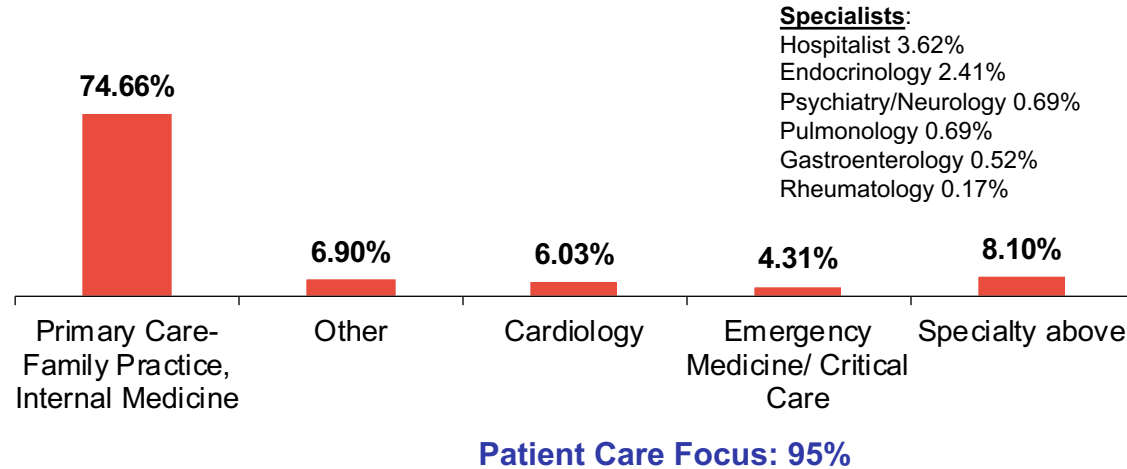


94%

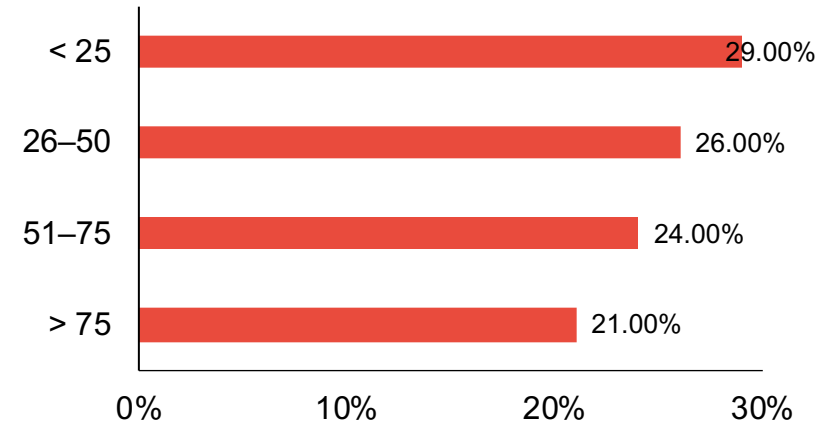
Provide direct patient care

Level 1: Demographics and Patient Reach

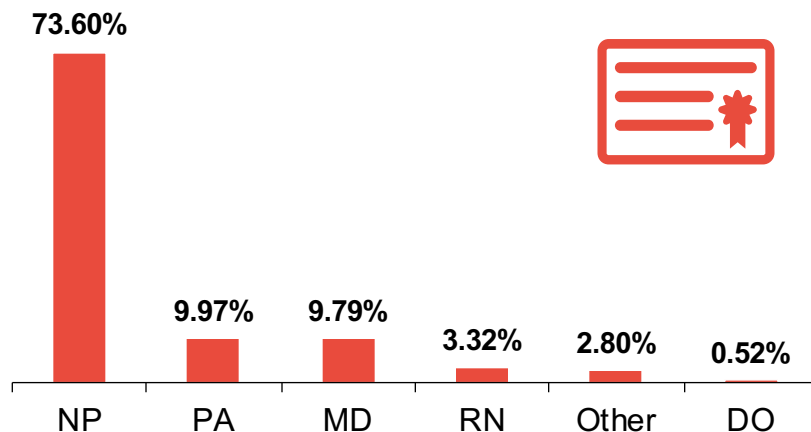
Specialty



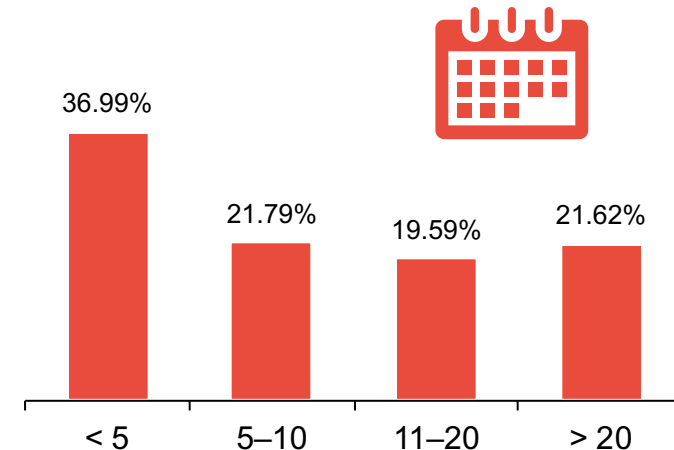
Patients with seen each week, in any clinical setting:



Profession



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

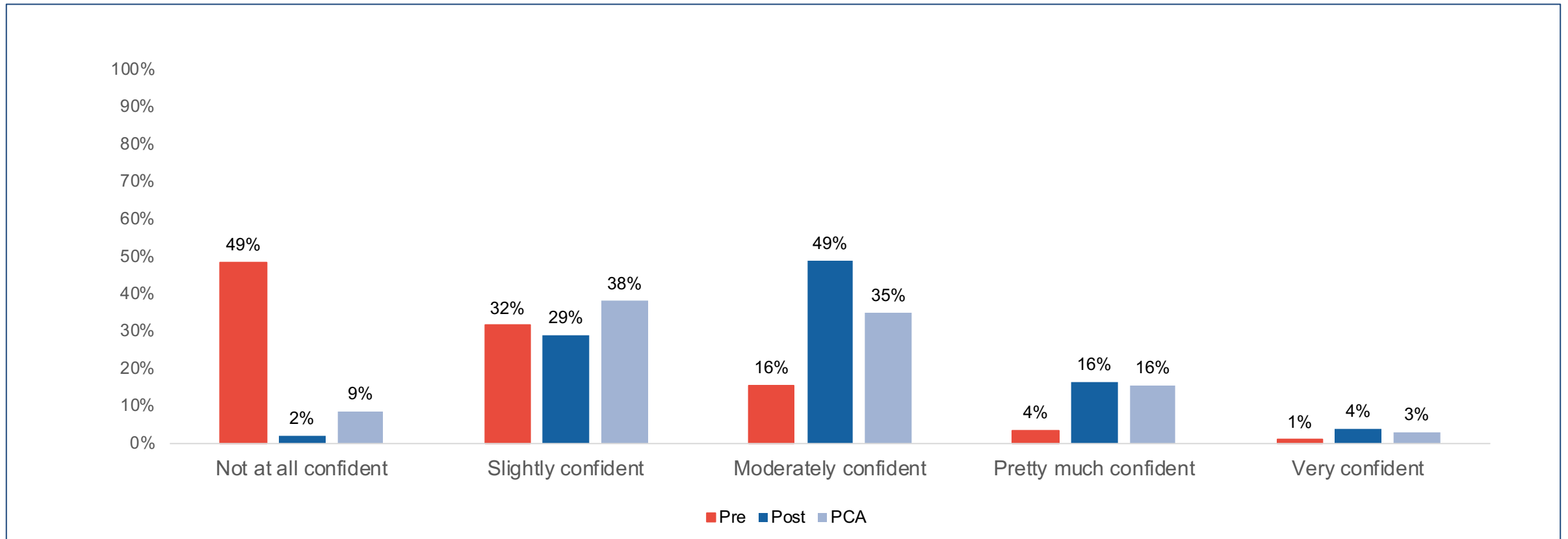


91% said they would implement new strategies that they learned



100% said the program was fair-balanced and unbiased

Please rate your confidence in your ability to integrate the assessment and management of AATD into the care of patients with COPD:



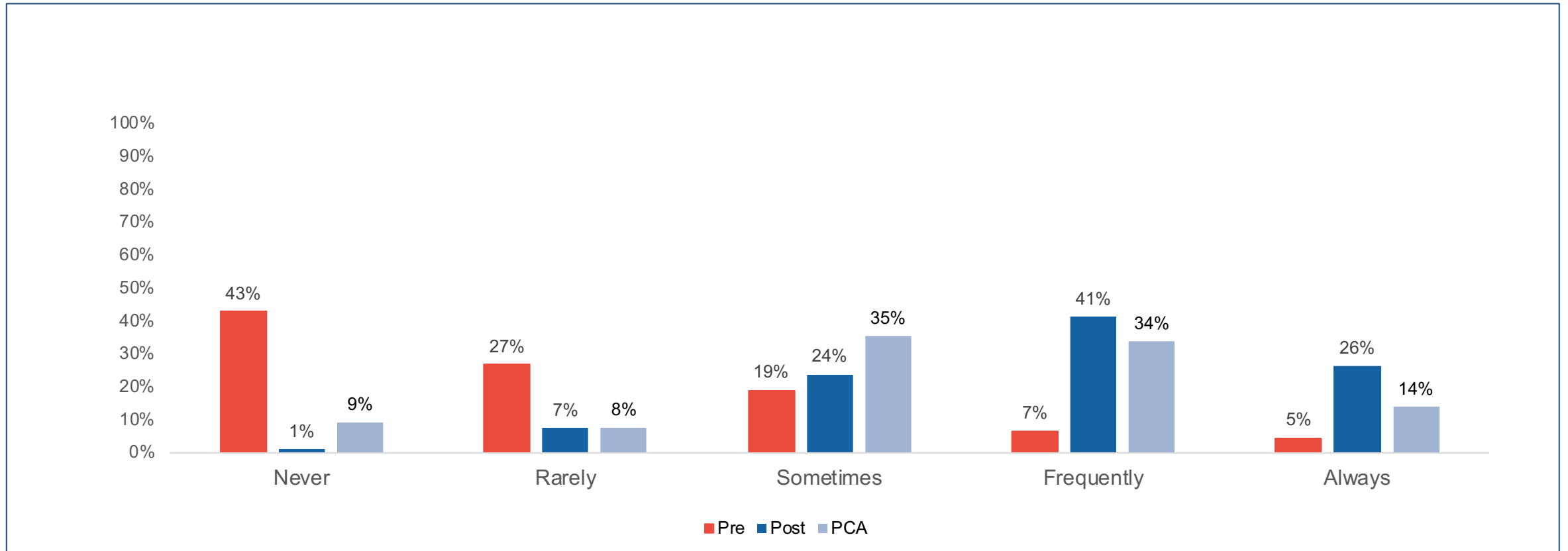
N= Pre: 337 Post: 340 PCA: 129

Pre-Post Change (1.77 - 2.91) 64%
 Pre-PCA Change (1.77 - 2.67) 51%



How often do you consider screening patients with COPD for AATD?

(Learning Objective 1, 2 3, and 4)



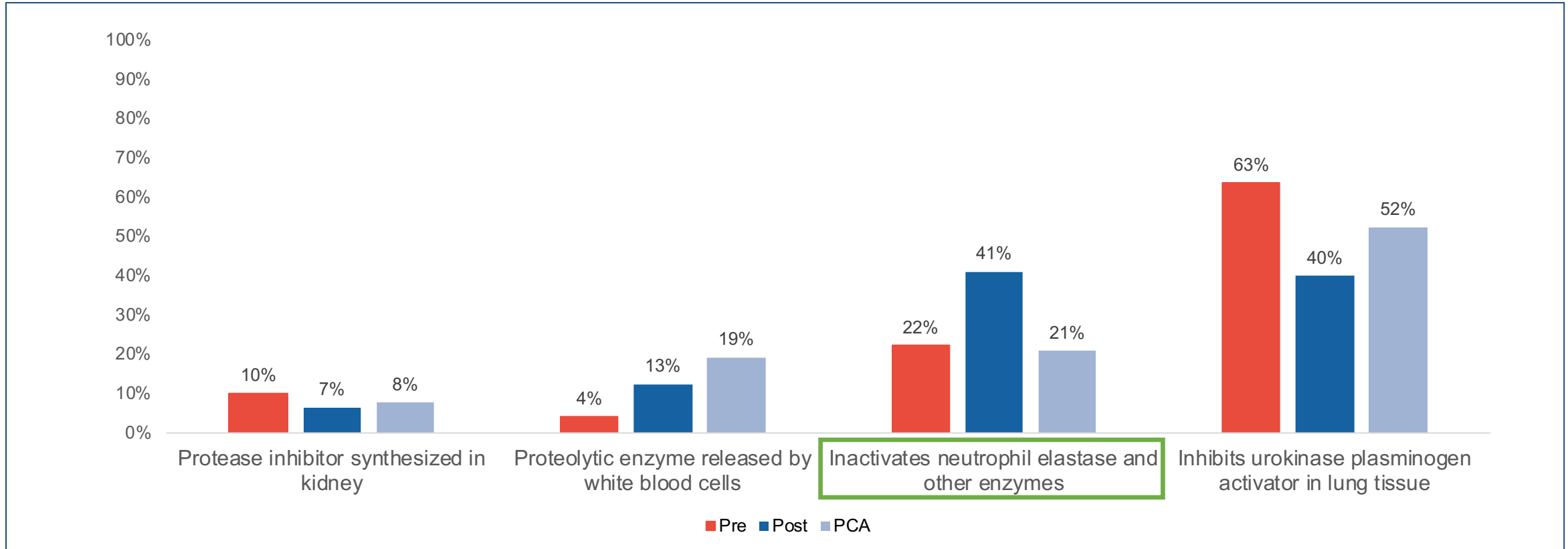
N= Pre: 319 Post: 326 PCA: 130

Pre-Post Change (2.04 – 3.85) 89%

Pre-PCA Change (2.04 – 3.35) 64%

Which of the following statements about alpha-1 antitrypsin is correct? (Learning Objective 1)

P Value: <=0.05



N= Pre: 308 Post: 329 PCA: 130

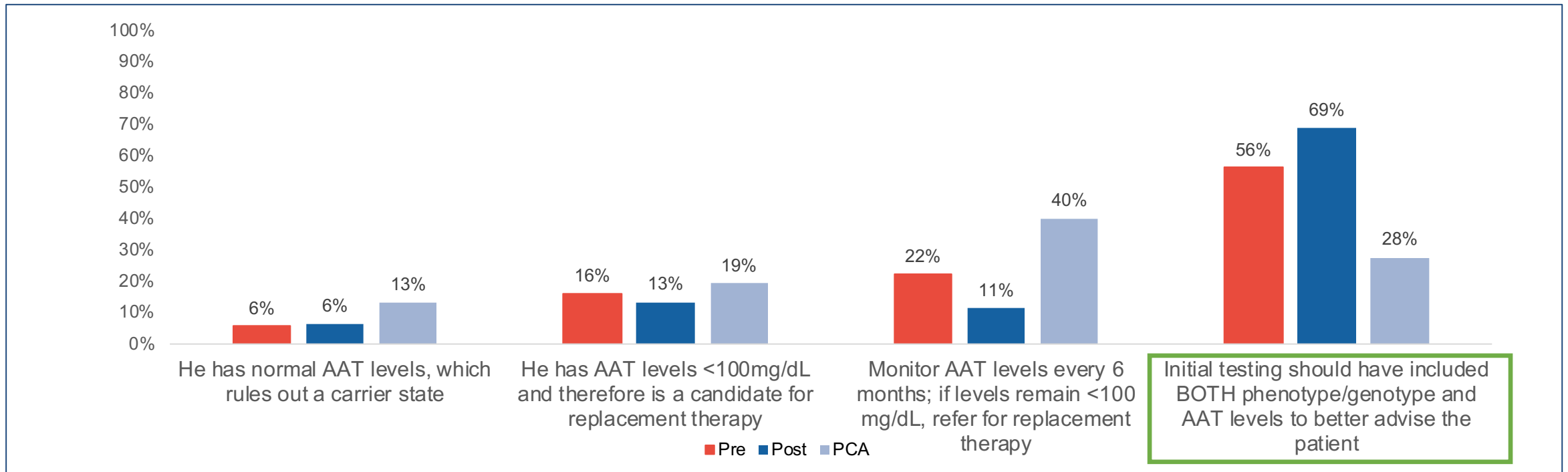
Pre-Post Change 86%
Pre-PCA Change -5%

Competence

A 42-year-old man with no smoking history is diagnosed with COPD. Testing for AATD identifies serum AAT 90 mg/dL. Which of the following statements is correct?

(Learning Objective 2 and 3)

P Value: ≤ 0.05



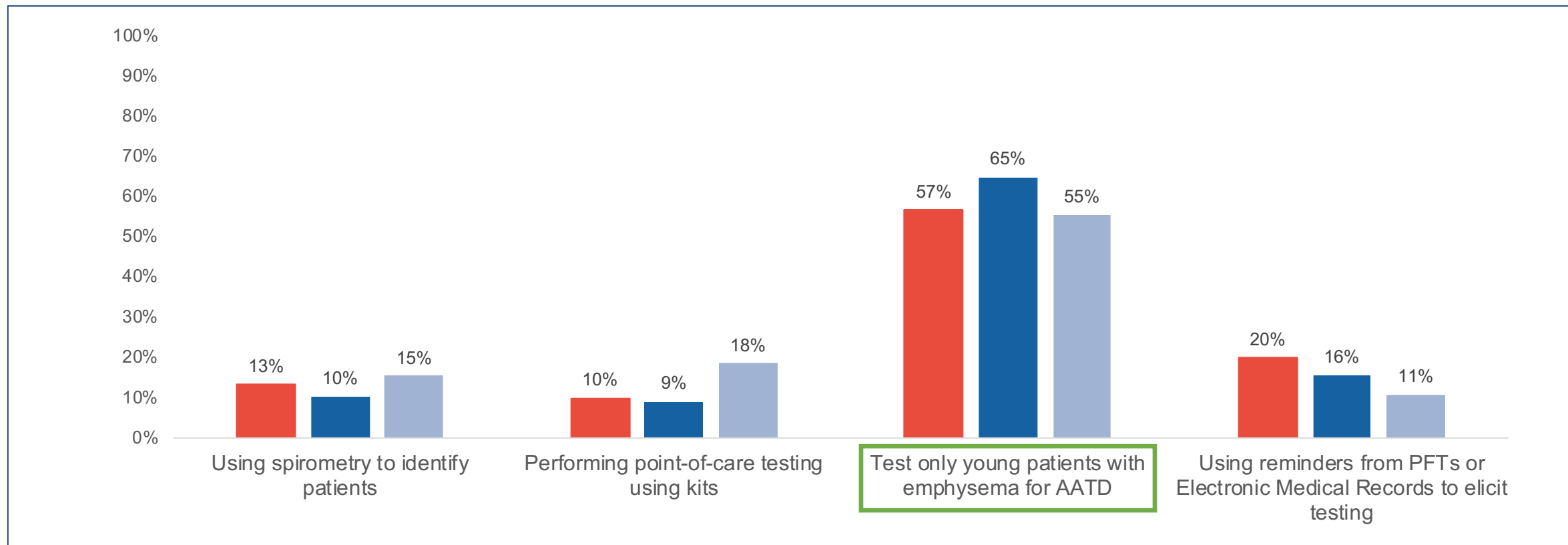
N= Pre: 321 Post: 329 PCA: 130

Pre-Post Change 23%
Pre-PCA Change -56%

Methods for identifying the majority of patients with AATD include all the following EXCEPT:

(Learning Objective 4)

P Value: <=0.05



N= Pre: 321 Post: 329 PCA: 130

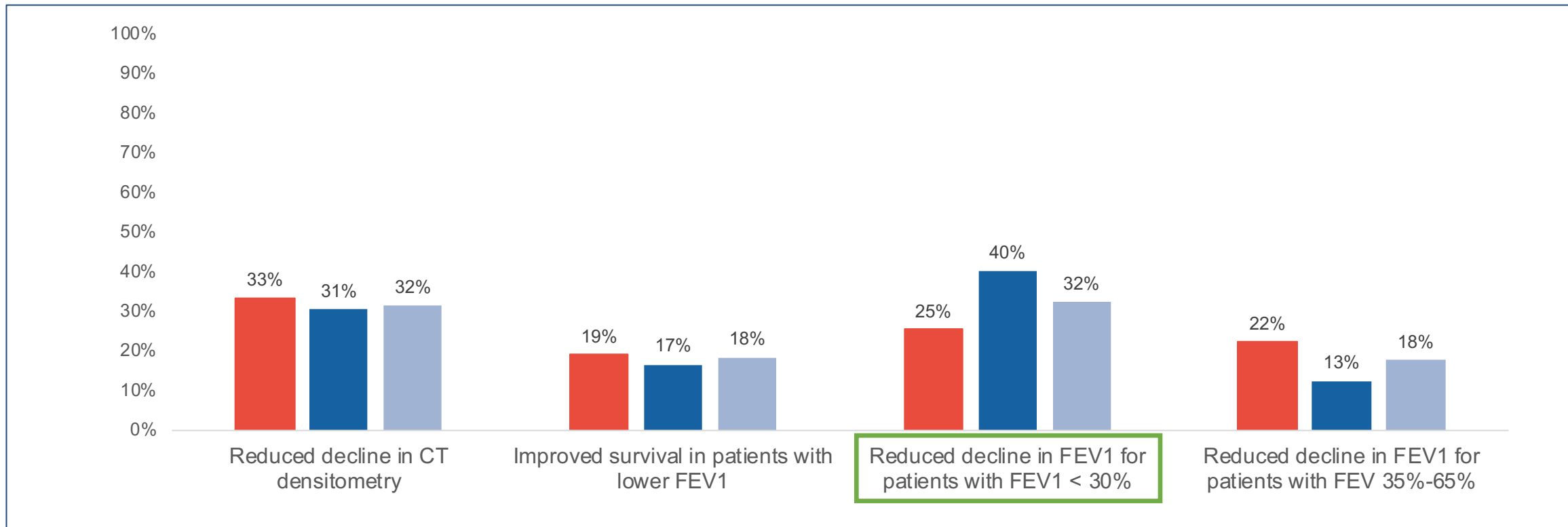
Pre-Post Change 14%

Pre-PCA Change -4%

All of the following benefits of AATD replacement therapy have been demonstrated (Registry or RCT), EXCEPT:

(Learning Objective 3)

P Value: ≤ 0.05



N= Pre: 321 Post: 329 PCA: 130

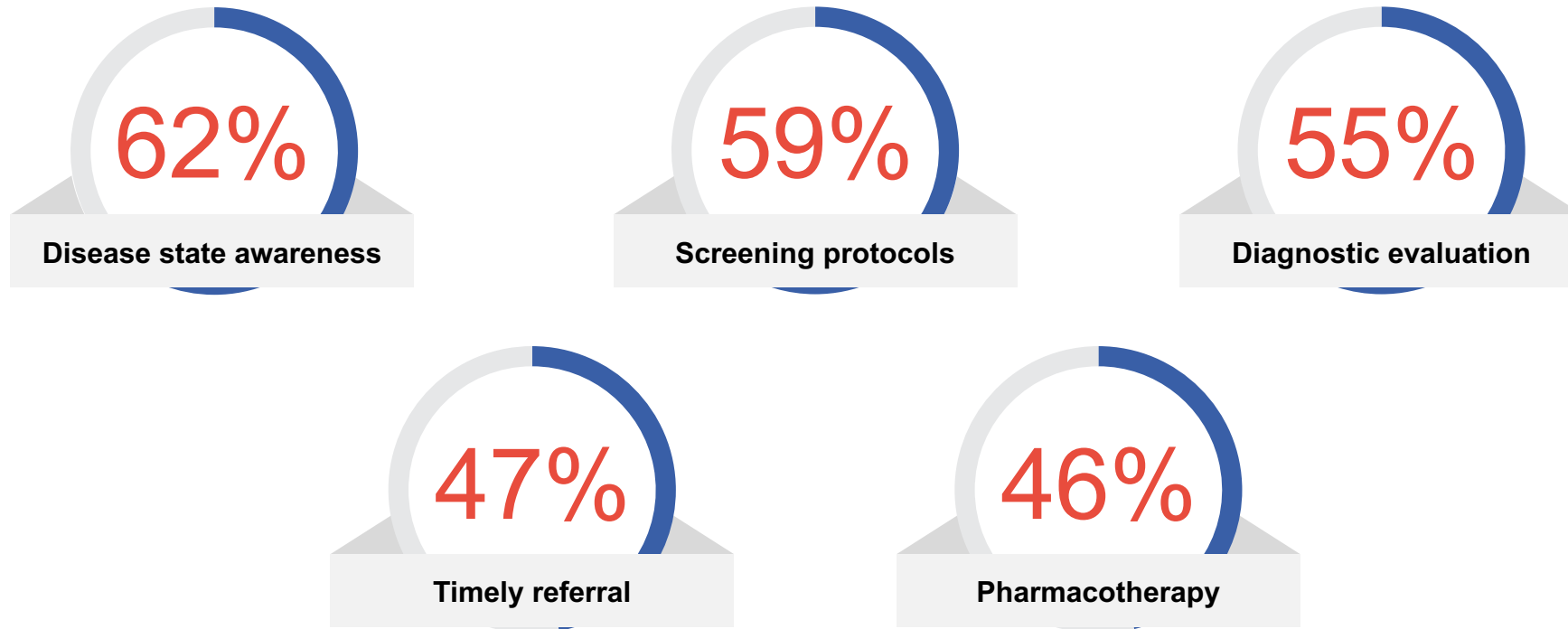
Pre-Post Change 60%

Pre-PCA Change 28%

(4-week Post Assessment)

Please select the specific areas of skills, or practice behaviors, you have improved regarding the screening, diagnosis and treatment of AATD since this CME activity. (Select all that apply.)

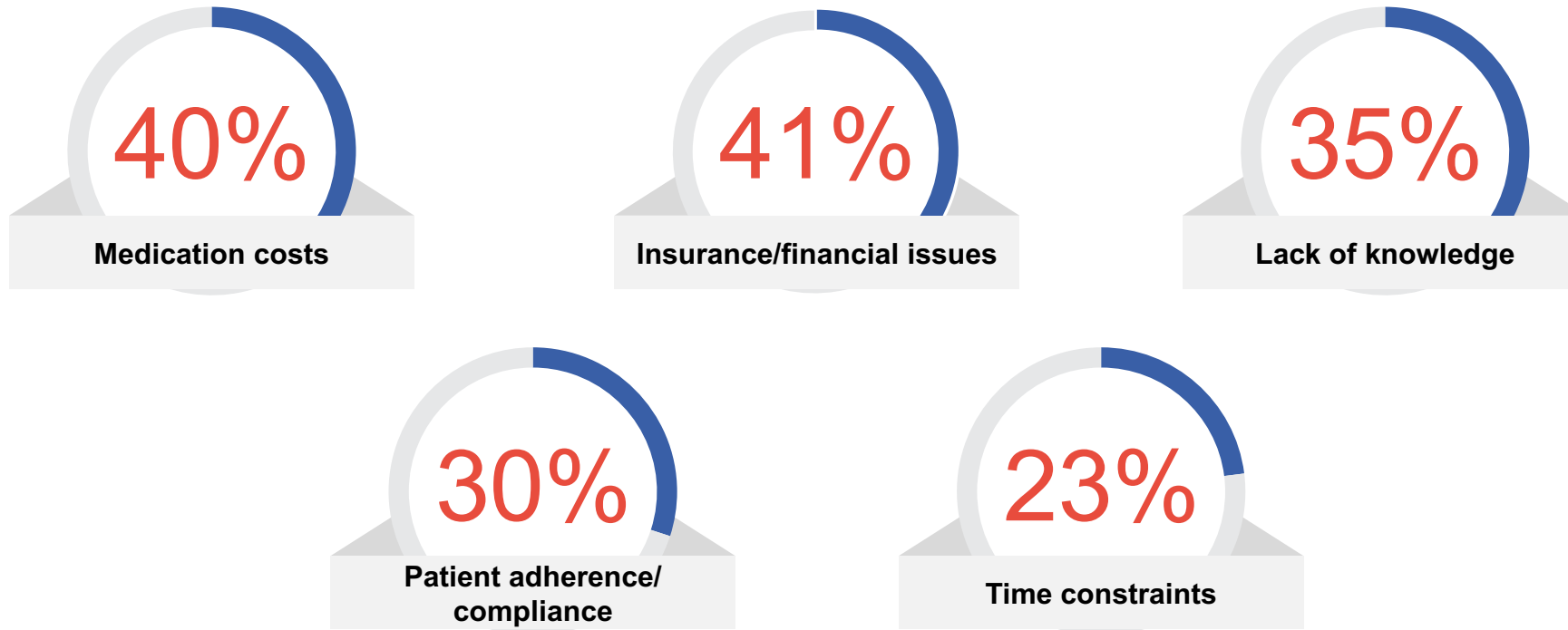
N=130



(4-week Post Assessment)

What specific barriers have you encountered that may have prevented you from successfully implementing strategies for patients with AATD since this CME activity?

(Select all that apply)



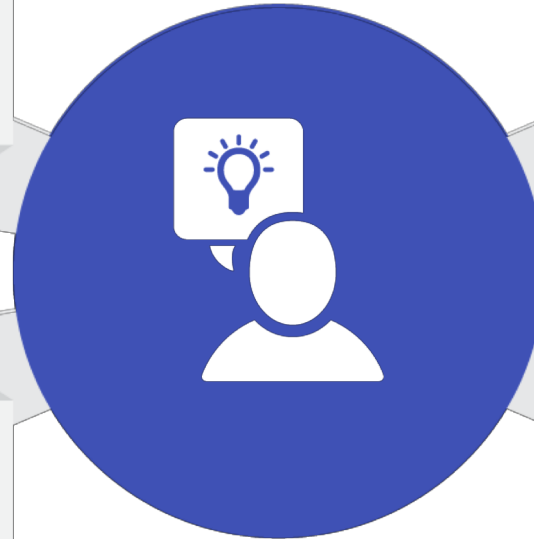
Participant Educational Gains

86% improvement in awareness of the mechanism of action of alpha-1 antitrypsin and the impact of its deficiency on lung tissue

14% increased awareness of effective strategies to increase early detection of AATD, including testing all patients with emphysema, not only the young

23% increase in recognition that initial evaluation should include phenotype/genotyping in addition to AAT levels

60% increased recognition that AATD replacement therapy has not demonstrated a reduced decline in FEV1 for patients with an FEV1 < 30%



Persistent Educational Gaps After 4 Weeks

Mechanism of action of alpha-1 antitrypsin and the impact of its deficiency on lung tissue

Laboratory testing to diagnose AATD

Effective screening strategies to identify the maximum number of patients with AATD

Benefits of AAT replacement therapy as demonstrated in Registry or RCTs



Key Take-home Points

89% improvement in intent to screen for AATD in patients with COPD, that persisted 4 weeks after the program

95% of learners are engaged in direct patient care



After 4 weeks, the following improved skills were reported regarding the **screening, diagnosis and treatment of AATD** : 62% disease state awareness, 59% screening protocols and 55% diagnostic evaluation

64% improved confidence in ability to integrate the assessment and management of AATD into the care of patients with COPD that persisted after 4 weeks