Challenges in Pulmonary and Critical Care 2017

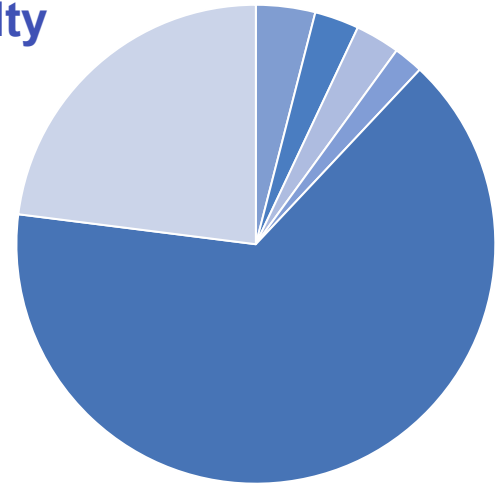
Alpha-1 Antitrypsin Deficiency: Challenges in Diagnosis and Treatment

Final Outcome Report: January 23, 2018

NACE

Level 1 (Participation)

Practice specialty



- 48% PCPs
- 15% Hospitalist
- 6% Pulmonologist
- 5% Cardiologist
- 3% Emergency Medicine
- 23% Other or did not respond

448
total attendees

349
remote simulcast

99
on site

Professional Degree

- 26% MD
- 1% DO
- 60% NP
- 9% PA
- 4% RN or other

92%
Provide direct patient care

Key Findings

Knowledge/Competence

63% of learners reported that the educational goals of the presentation was completely achieved and 98% reported the goals to be somewhat to completely achieved. Improvement in all 4 knowledge and competence questions, 2 of which achieved statistical significance.

Confidence

Percentage of learners that claimed be somewhat to very confident in their understanding of Alpha-1 antitrypsin deficiency increased from 13% to 93% four weeks after the program.

Practice

56% stated 4 weeks after program that they intend to improve their screening protocols for patients with Alpha-1 antitrypsin deficiency

Change of Practice Behavior

After 4 weeks, participants reported the following improved skills regarding the screening and treatment of Alpha-1 antitrypsin deficiency: 70% disease state awareness, 61% pharmacotherapy, and 56% screening protocols.

4 Weeks Post N= 163

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Discussion and Implications

- Overall, the program improved understanding of the learners in diagnosis and management and pharmacotherapy of Alpha-1 antitrypsin deficiency
- Major improvement in understanding the disease and its importance
- Learners demonstrated persistent gaps in the several areas including:
  - Comprehensive understanding of the manifestations of Alpha-1 antitrypsin deficiency
  - Complete understanding of who to screen for Alpha-1 antitrypsin deficiency
  - Impact of carrier state on patients with Alpha-1 antitrypsin deficiency
  - Understanding of the data underlying the efficacy of Alpha-1 antitrypsin deficiency

The post-test scores, and intent to change practice patterns regarding the management of patients with Alpha-1 antitrypsin deficiency signifies a clear gap in knowledge and an unmet need among clinicians. It continues to be an important area for future educational programs.

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Challenges in Pulmonary & Critical Care 11th Annual Symposium 2017

Commercial Support

The Challenges in Pulmonary & Critical Care 2017 held on December 2, 2017 was supported through educational grants or donations from the following companies:

- Actelion Pharmaceuticals US, Inc.
- Bayer Healthcare Pharmaceuticals, Inc.
- Boehringer Ingelheim Pharmaceuticals, Inc.
- CSL Behring
- Grifols
- Mallinckrodt Pharmaceuticals
- Shire
- Sunovion Pharmaceuticals Inc.

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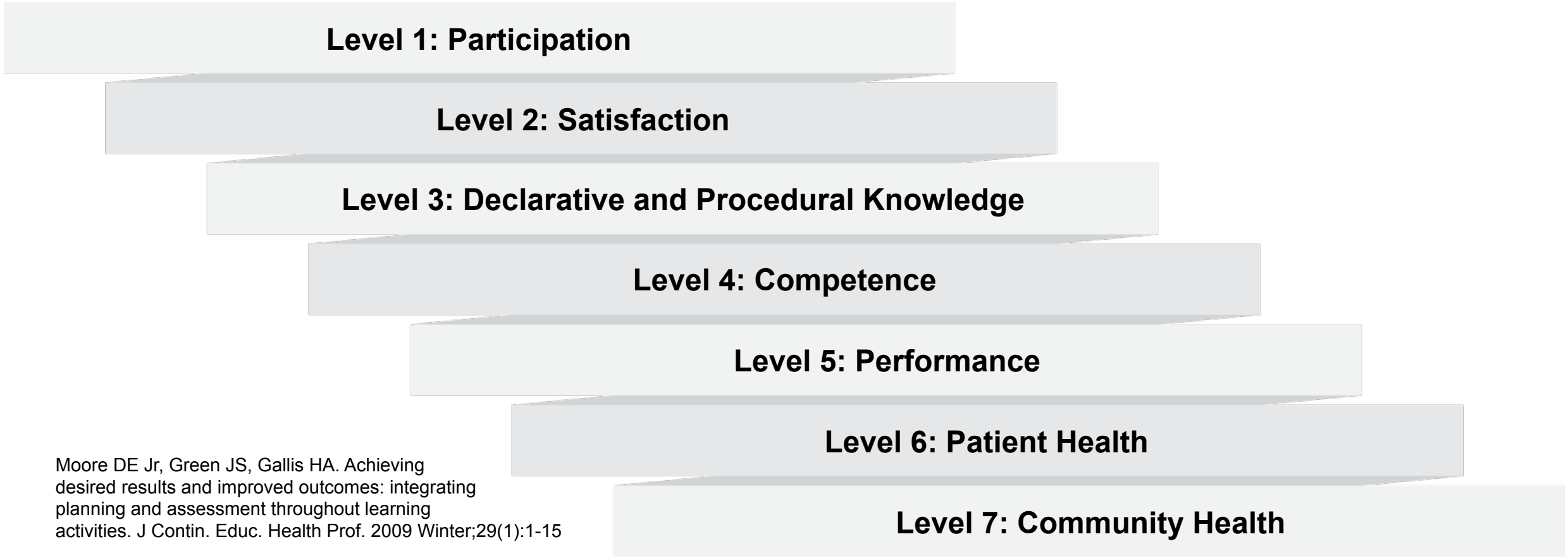
Learning Objectives

1. Discuss the pathophysiology of alpha1-antitrypsin deficiency (AATD).
2. Learn how to diagnose AATD patients.
3. Incorporate AATD testing into chronic obstructive pulmonary disease (COPD) management algorithms.
4. Evaluate treatment options for patients with AATD.

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.



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

Sample Size: N = 448

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

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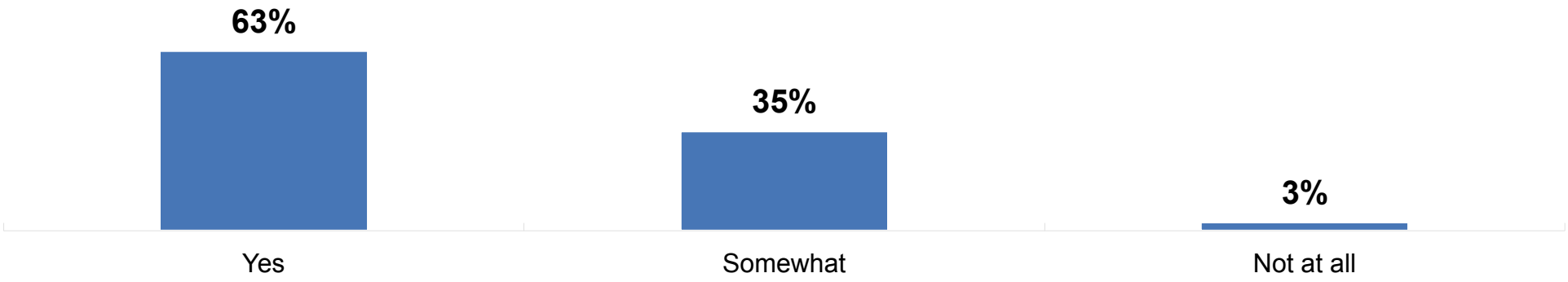
Attendee Learning Objectives Achievement

Upon completion of this activity, I can now:

- Discuss the pathophysiology of alpha1-antitrypsin deficiency (AATD).
- Learn how to diagnose AATD patients.
- Incorporate AATD testing into chronic obstructive pulmonary disease (COPD) management algorithms.
- Evaluate treatment options for patients with AATD.

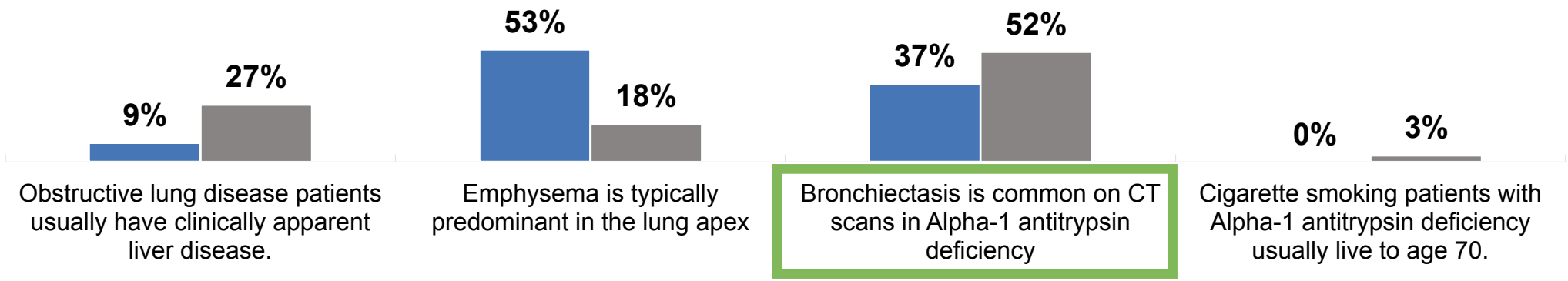


Sample Size: N = 392

Which of the following is true about Alpha-1 antitrypsin deficiency lung disease:

(Learning Objective 1)

P Value: 0.002 – Significant

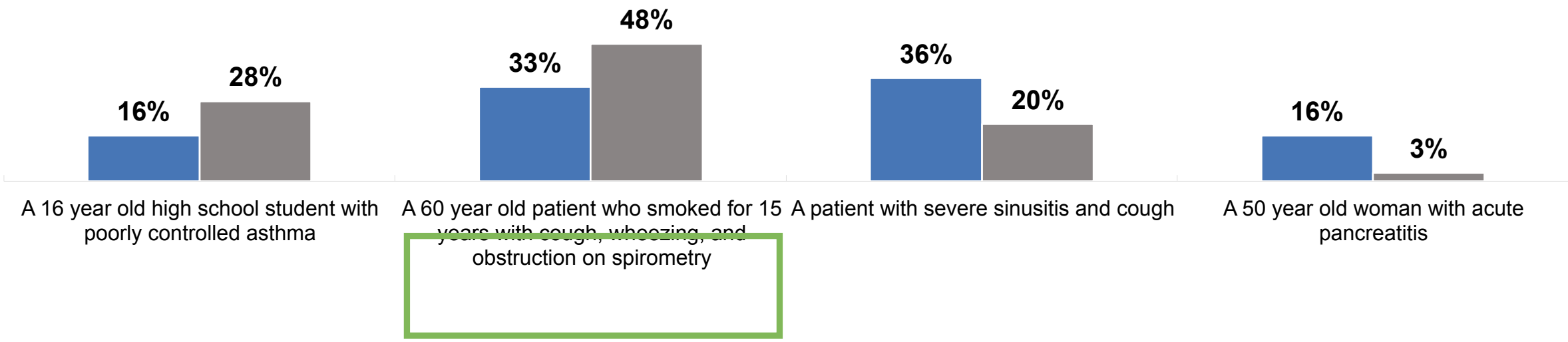


Pre N = 201 Post N = 191

Which of the following patients should be tested once for Alpha-1 antitrypsin deficiency:

(Learning Objective 2)

P Value: 0.003 – Significant

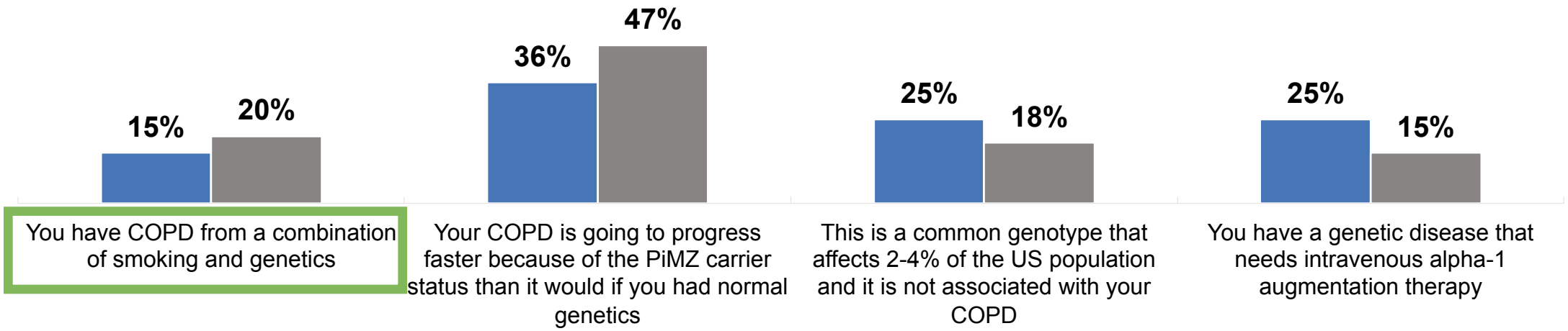


Pre N = 200 Post N = 149

A 50 year old patient with PiMZ carrier status for Alpha-1 antitrypsin is identified during testing for moderate COPD. He has smoked for 15 pack years. What should you tell this patient:

(Learning Objective 3)

P Value: 0.274 – Not Significant

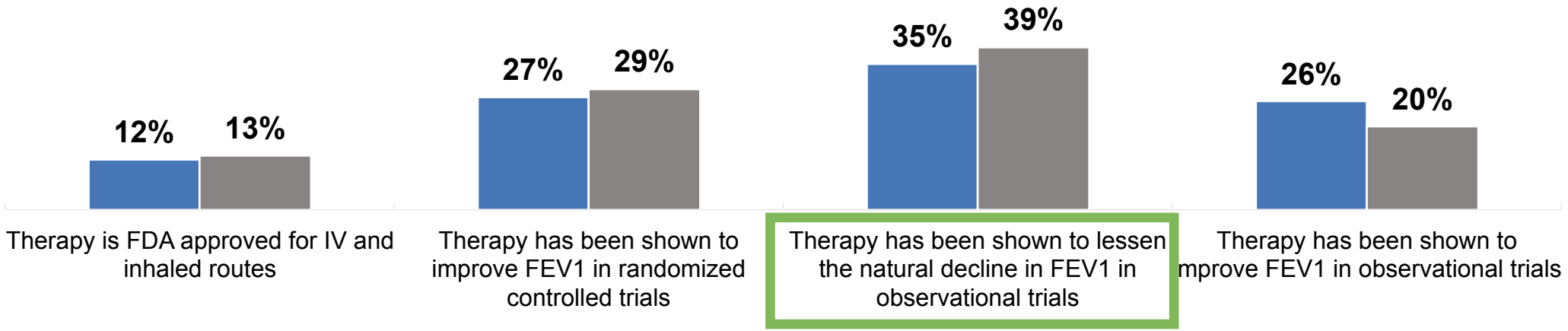


Pre N = 204 Post N = 164

Which statement about therapy with Alpha-1 augmentation therapy (A1PI) is true?

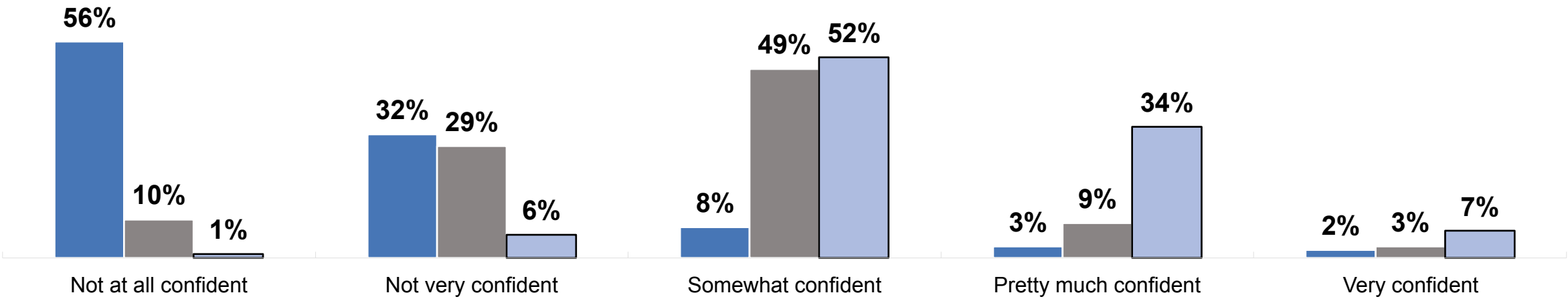
(Learning Objective 4)

P Value: 0.504 – Not Significant



Pre N = 201 Post N = 168

Please rate your confidence in your ability to diagnose and manage patients with Alpha-1 antitrypsin deficiency:



Pre N = 209 Post N =197 4 weeks N = 163

Data Interpretation

More clearly recognize the manifestations of Alpha-1 antitrypsin deficiency

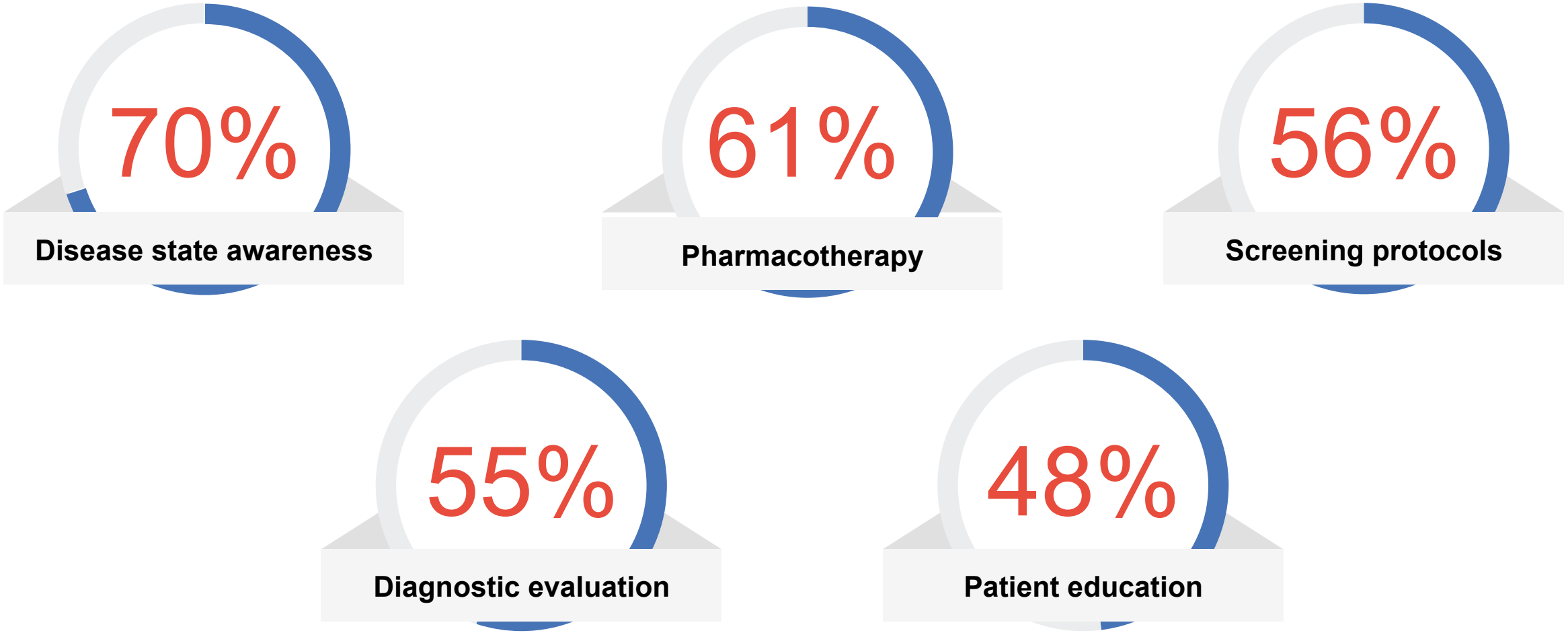
Improved understanding of the patients selection for screening for alpha-1 antitrypsin deficiency

Improving in understanding of relationship of carrier status and evolution of COPD

Still have a limited understanding of salutatory effects of Alpha-1 Augmentation therapy in deficient patients.

(4-week Post Assessment N=164)

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



(4-week Post Assessment N=164)

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