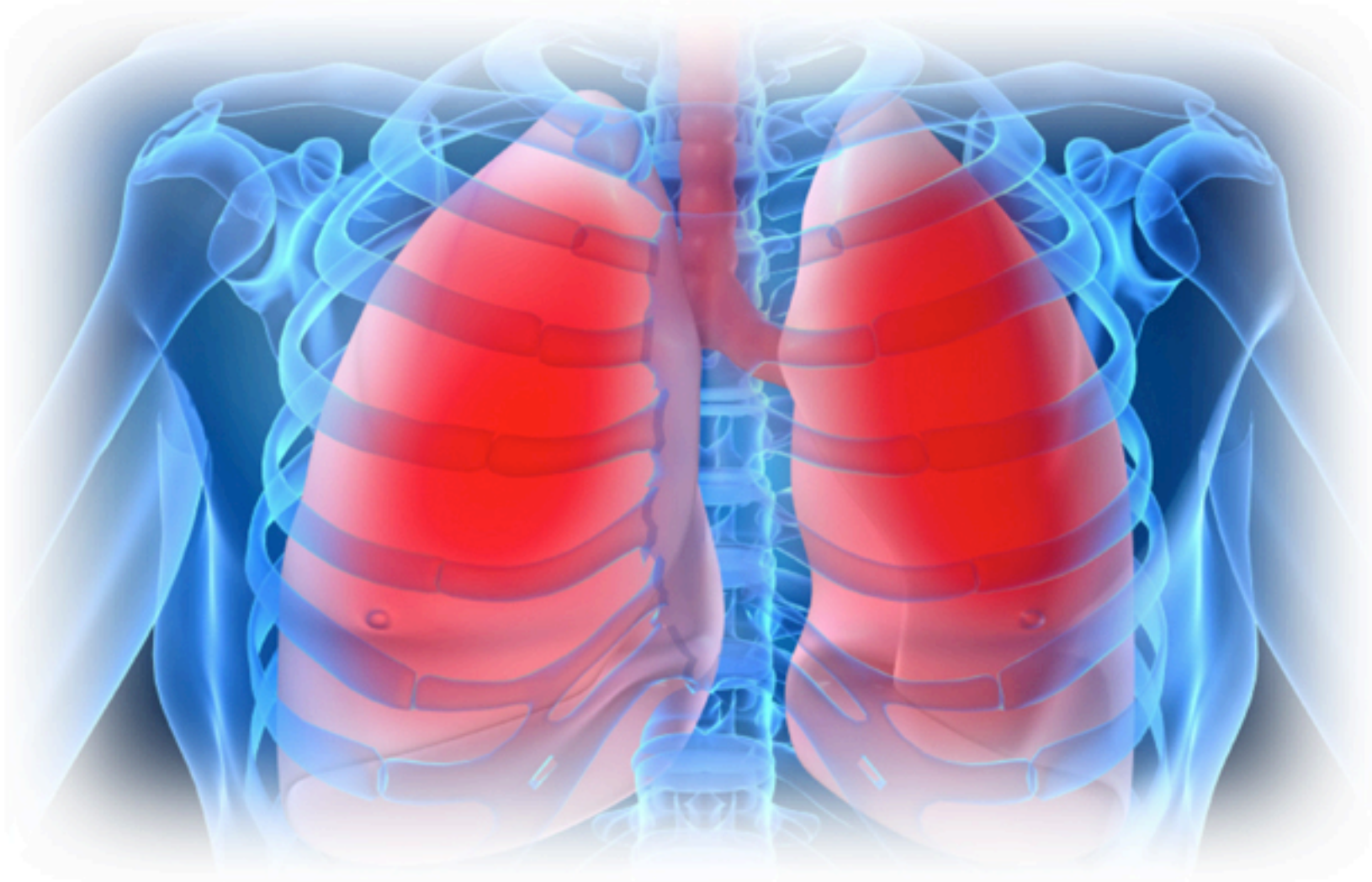


# Challenges in Pulmonary and Critical Care 2017



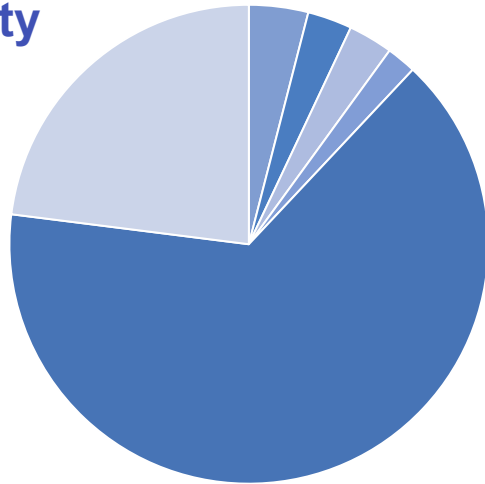
## Sarcoidosis: Update 2017

Outcome Report: Mallinckrodt Grant # 4711

February 7, 2018

# 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

Statistically significant improvement in all 3 questions regarding the diagnosis and management of patients with Pulmonary Sarcoidosis



## Confidence

Percentage of learners that claimed be somewhat to very confident in their ability to diagnose and manage Sarcoidosis increased from 10% to 93% four weeks after the program.



## Practice

91% stated they would implement new strategies learned at this program



## Change of Practice Behavior

After 4 weeks, participants reported the following improved skills regarding the treatment of patients with pulmonary disease: 70% disease state awareness, 61% pharmacotherapy, 56% screening protocols, and 55% diagnostic evaluation.

4 Weeks Post N= 163

# Discussion and Implications

- ❖ Overall, the program greatly improved understanding of the learners in diagnosis, management and pharmacotherapy of Pulmonary Sarcoidosis.
- ❖ Major improvement in understanding the disease and importance of treatment
- ❖ Though improvements were observed, learners demonstrated persistent gaps in the several areas including:
  - ❖ Clear grasp of tests required for confident diagnosis
  - ❖ Initiation of therapy for qualified patients
  - ❖ Variety of medications available for treatment of Sarcoidosis

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

## Course Director

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Director of Advanced Lung Disease Clinic  
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Head of Alpha-1 Foundation Clinical Resource Center  
Chairman, Dept. of Pulmonary and Critical Care  
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## Activity Planning Committee

---

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University of Alabama at Birmingham  
Birmingham, AL



# 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.

# Learning Objectives

1. Describe the pathophysiology and the epidemiology of Sarcoidosis.
2. Understand the up-to-date methodology for diagnosis of Sarcoidosis.
3. Review our current understanding of the treatments considered, including steroids, mineralocorticoid receptor agonists and other agents.

# 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

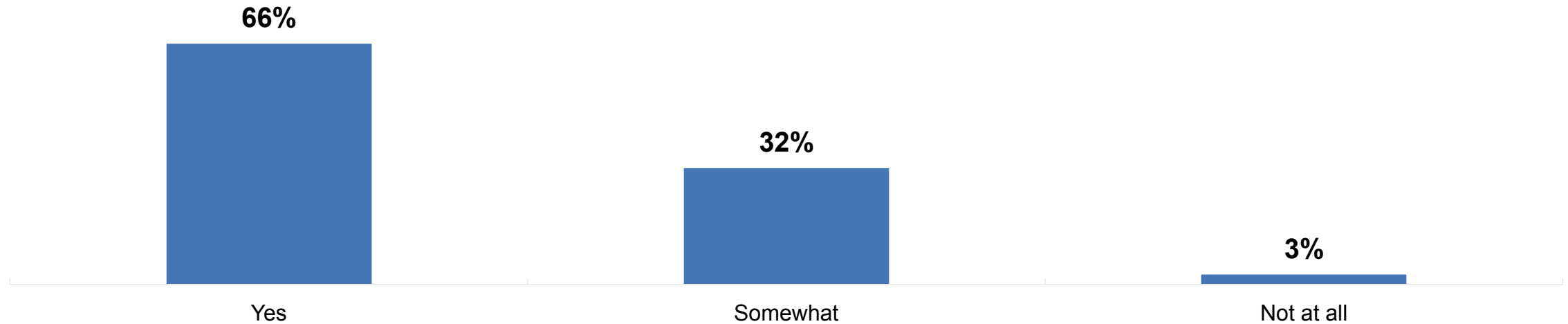


**100%** said the program was fair-balanced and unbiased

# Attendee Learning Objectives Achievement

Upon completion of this activity, I can now:

- Describe the pathophysiology and the epidemiology of Sarcoidosis.
- Understand the up-to-date methodology for diagnosis of Sarcoidosis.
- Review our current understanding of the treatments considered, including steroids, mineralocorticoid receptor agonists and other agents.

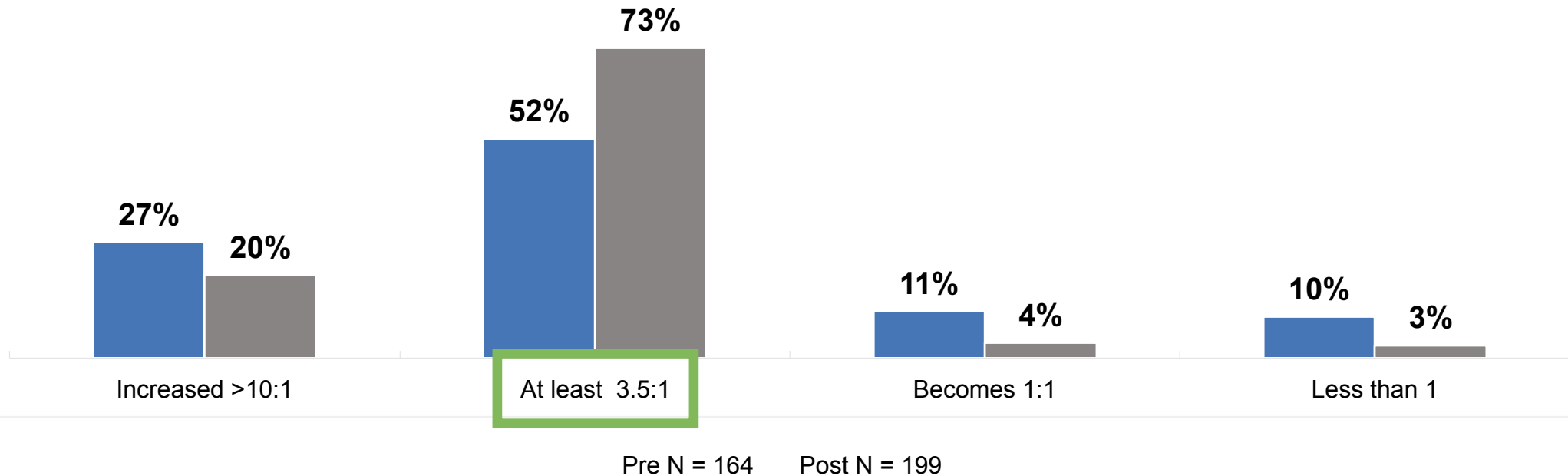


Sample Size: N = 396

Charles is a 43 y/o teacher who has a recalcitrant severe cough. The chest XR shows lymphadenopathy and interstitial changes. He has no pets, no clear evidence of occupational exposures, no h/o of CTD in the family. His PFT's are moderately restrictive. He undergoes EBUS, that shows non caseating granulomas. The BAL is also sent for cell count and differential.

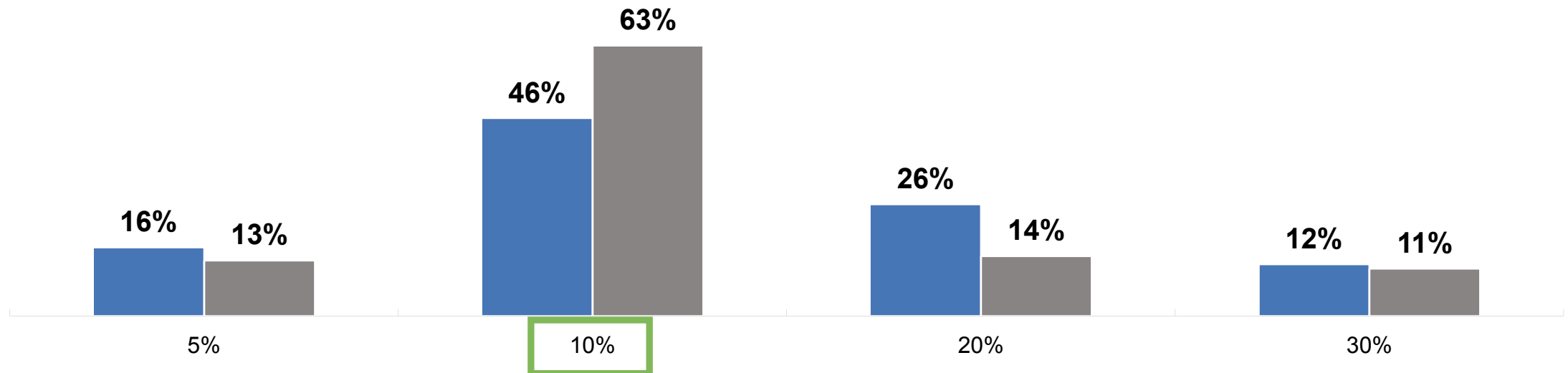
The CD4 to CD8 ratio in Sarcoidosis is:  
(Learning Objective 1)

P Value: 0.001 – Significant



**Charles' laboratory exam shows a CD4/CD8 ratio of 12, and is negative for RA, ANA, and ANCA, Hypersensitivity panel, but the ACE levels are elevated at 60 µg/L. (NL < 40 µg/L).  
The false positive rate for ACE in Sarcoidosis:  
(Learning Objective 2)**

P Value: 0.001 – Significant



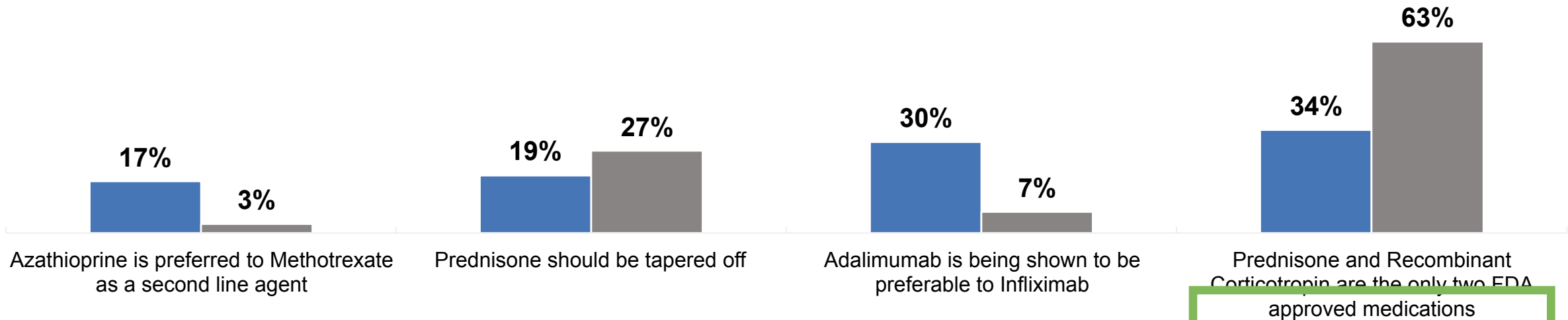
Pre N = 184 Post N = 200

## Because of moderate changes in PFTs and significant symptoms you chose to treat his Sarcoidosis.

### Which is True regarding Sarcoidosis treatment?

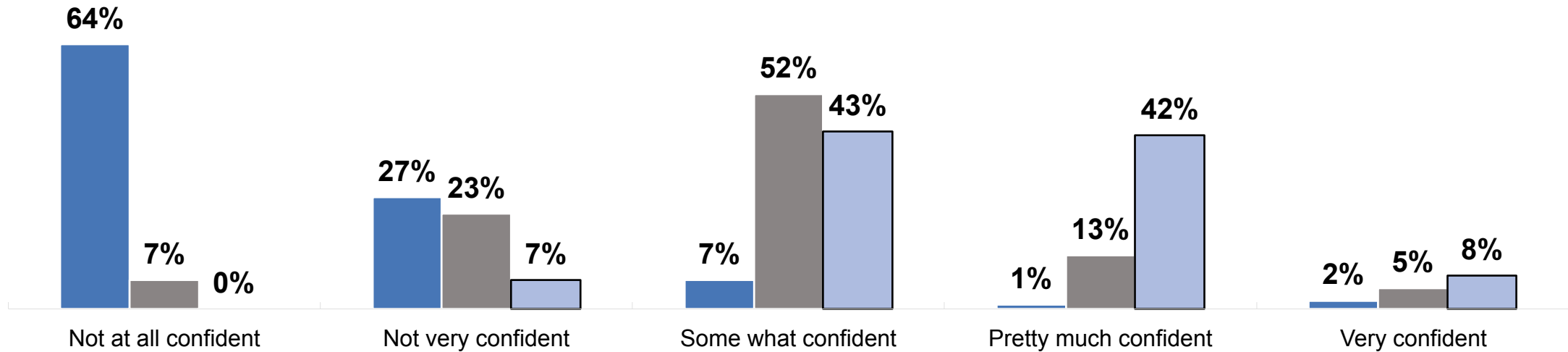
(Learning Objective 3)

P Value: 0.001 – Significant



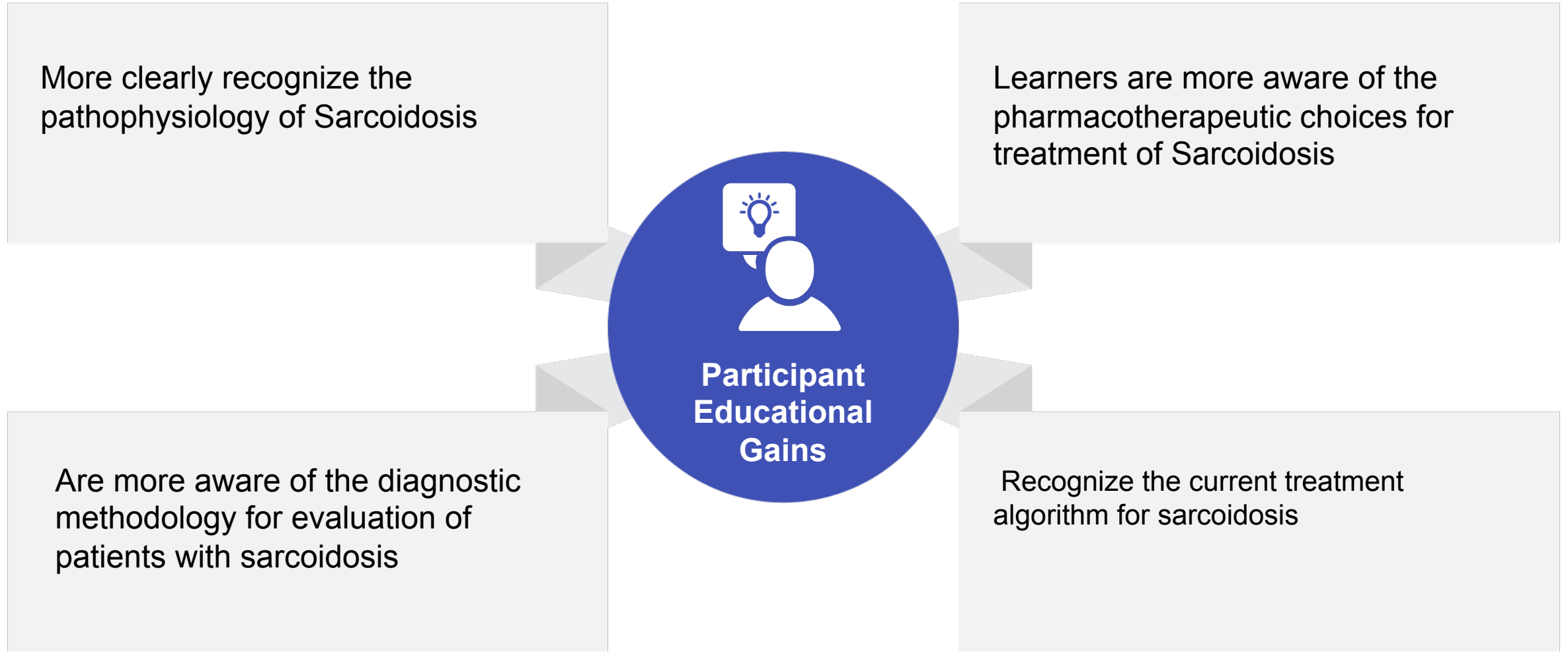
Pre N = 182    Post N = 203

## Please rate your confidence in your ability to diagnose and manage patients with Sarcoidosis:



Pre N = 181    Post N = 198    4 weeks N = 163

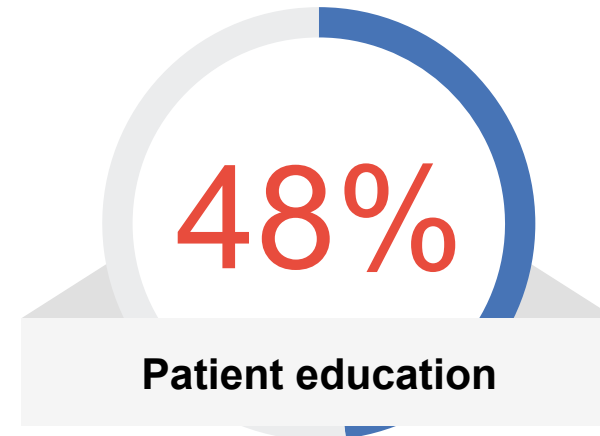
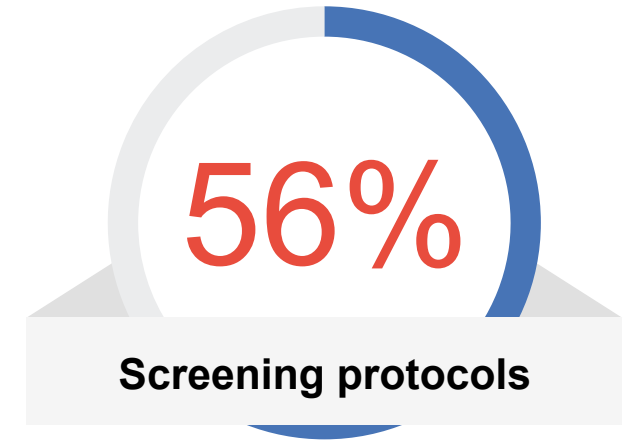
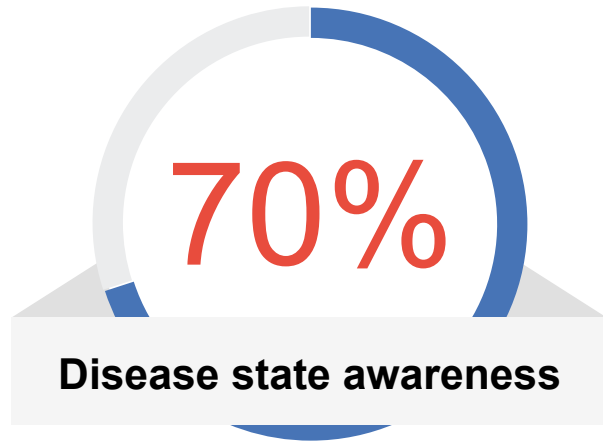
# Data Interpretation



(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=163)

**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)**

