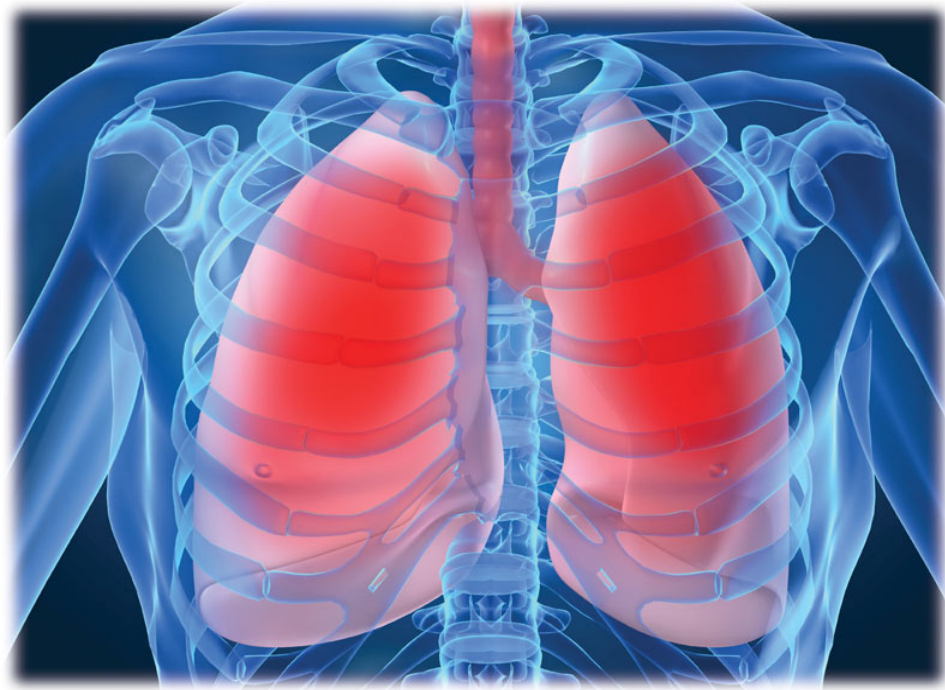# NATIONAL ASSOCIATION FOR CONTINUING EDUCATION

Idiopathic Pulmonary Fibrosis: How to Use our New Treatments

Final Outcome Report

Challenges in Pulmonary and Critical Care: 2015

Presented at:
Cleveland Clinic Florida
Weston, Florida
November 21, 2015

Report Date: January 13, 2016

Course Director

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Course Accreditation

The National Association for Continuing Education is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The National Association for Continuing Education designates this live activity for a maximum of 8 *AMA PRA Category 1 Credits™*. Physicians should only claim the credit commensurate with the extent of their participation in the activity.

National Association for Continuing Education is approved as a provider of nurse practitioner continuing education by the American Association of Nurse Practitioners. AANP Provider Number 121222. This program has been approved for 8.0 contact hours of continuing education (which includes 1.25 hours of pharmacology).

Commercial Support

Challenges in Pulmonary and Critical Care: 2015 CME activity was
supported through educational grants from
the following companies:

Actelion
Baxalta
Boehringer Ingelheim Pharmaceuticals, Inc.
CSL Behring
Grifols
Mallinckrodt Pharmaceuticals
United Therapeutics Corporation

Agenda

| Time	Session
7:00-7:45	Registration and Breakfast
7:45-8:00	Welcome Remarks Franck Rahaghi, MD, MHS, FCCP
8:00-9:00	Pulmonary Hypertension: Goal Oriented Therapy Abubakr Bajwa, MD
9:00-10:00	Idiopathic Pulmonary Fibrosis: How to Use our New Treatments Felipe Martinez, MD
10:00- 10:15	Break/Exhibits
10:15-11:15	Alpha One Anti-trypsin Deficiency: Challenges in Diagnosis and Treatment Franck Rahaghi, MD, MHS, FCCP
11:15-12:15	Lung Cancer: Screening and the New Outlook Jinesh Mehta, MD
12:15- 1:00	Lunch and Exhibits
1:00-2:00	Identifying and Managing Patients with Sarcoidosis Franck Rahaghi, MD, MHS, FCCP
2:00-3:00	Pathology of Pulmonary Diseases: COPD/Sarcoidosis/Idiopathic Pulmonary Fibrosis/ Hypersensitivity Pneumonitis Pablo A. Bejarano, MD
3:00-3:15	Break/Exhibits
3:15-4:15	COPD: Bridging the Gaps Anas Hadeh, MD, FCCP
4:15-5:15	Palliative Care and Chronic Pulmonary Diseases Nydia Martinez Galvis, MD
5:15-5:30	Concluding Remarks Franck Rahaghi, MD, MHS, FCCP

Levels of Evaluation

Consistent with the policies of the ACCME, NACE evaluates the effectiveness of all CME activities using a systematic process based on the following model:

1. Participation
2. Satisfaction
3. Learning

   A. Declarative Knowledge

   B. Procedural Knowledge

4. Competence
5. Performance
6. Patient Health
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

- 156 attendees
- 43% Physicians; 25% NPs; 6% PAs; 5% RNs; 21% Other
- Over 36% in community-based practice
- 47% PCPs, 26% Pulmonology; 2% Cardiology; 1% Endocrinology
- 24% Other or did not respond
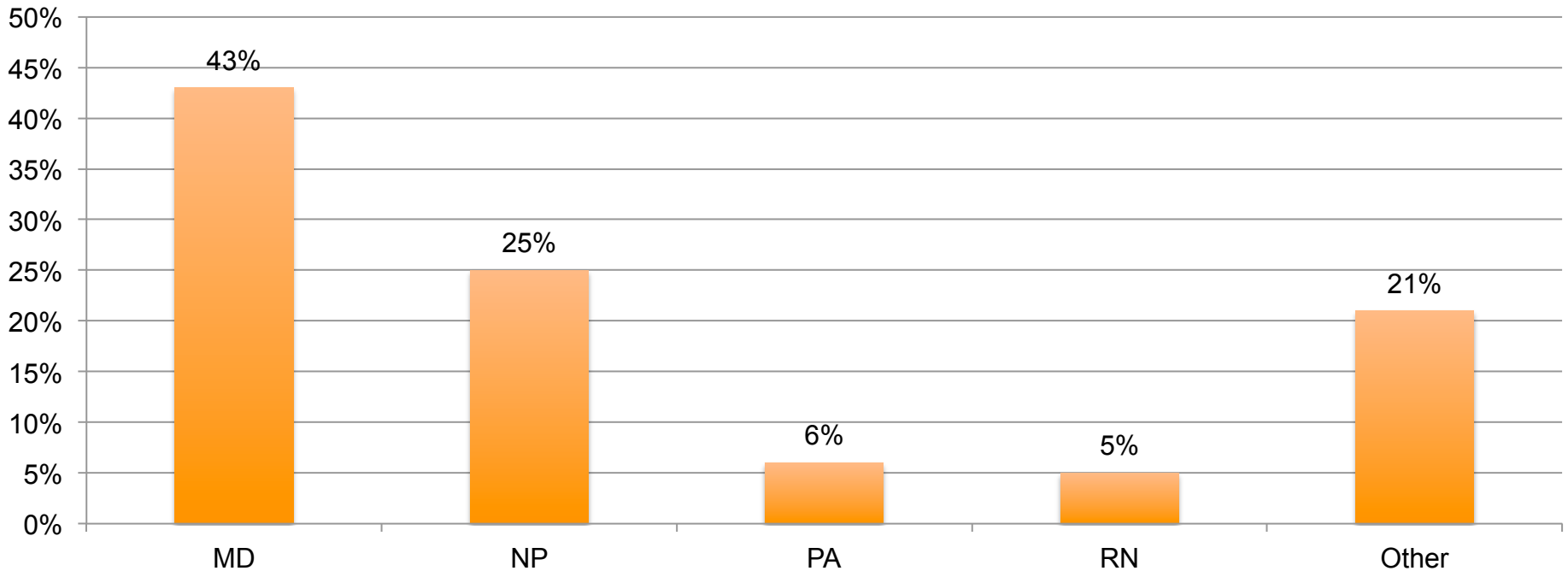
N =105

Did we reach the right audience?   Yes!

Level 2: Satisfaction

- 99% rated the activity as very good to excellent

- 100% indicated the activity improved their knowledge

- 100% stated that they learned new strategies for patient care

- 83% said they would implement new strategies that they learned in their practice

- 97% said the program was fair-balanced and unbiased

Were our learners satisfied? Yes!

Level 2: Satisfaction

Upon completion of this activity, I can now –
Discuss the appropriate strategy for the diagnosis of idiopathic pulmonary fibrosis (IPF); recognize prognostic features for individual IPF patients; discuss appropriate pharmacotherapeutic options for individual IPF patients; and appreciate the optimal timing for referral of IPF patients.

N =146
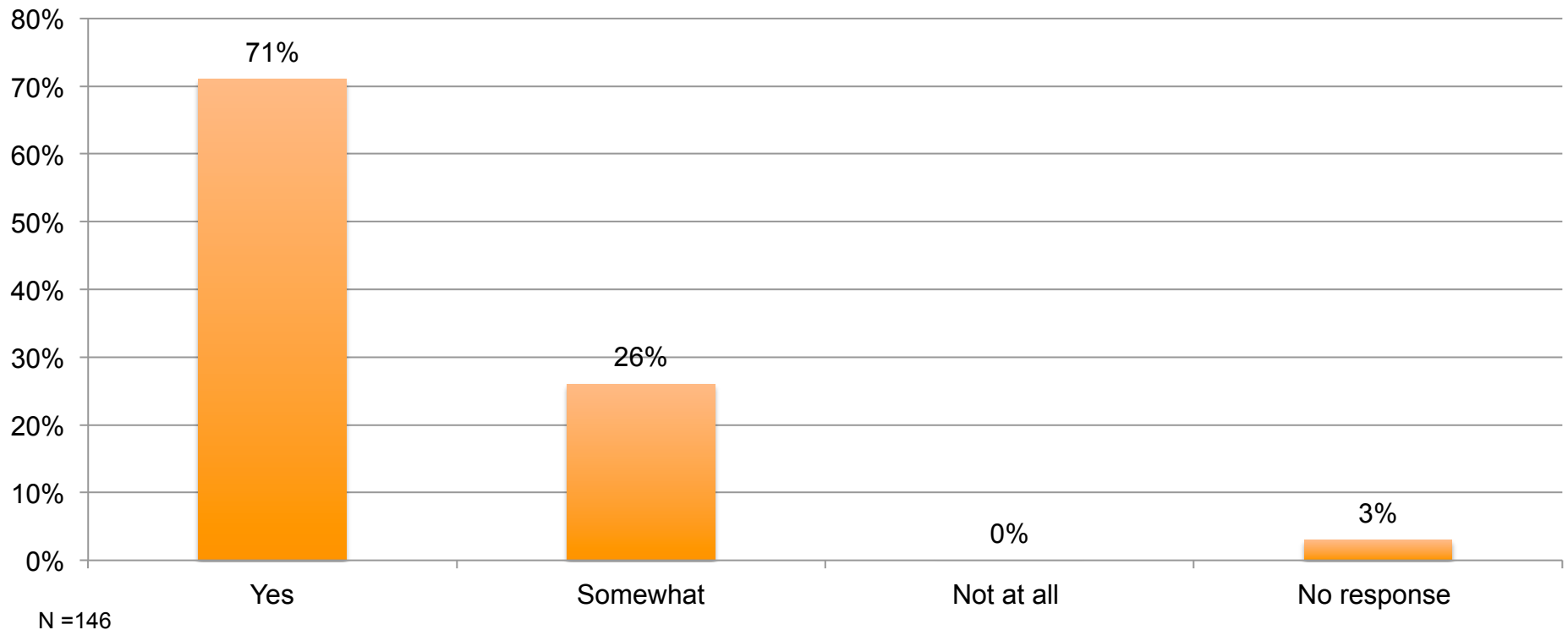
Did learners indicate they achieved the learning objectives?
Yes! 97% believed they did.

Outcome Study Methodology

Goal

To determine the effect this CME activity had on learners with respect to competence to apply critical knowledge, confidence in treating patients with diseases or conditions discussed, and change in practice behavior.

Dependent Variables

1. **Level 3-5: Knowledge, Competence, and Performance**

    Case-based vignettes and pre- and post-test knowledge questions were asked with each session in the CME activity. Identical questions were also asked to a sample of attendees 4 weeks after the program to assess retention of knowledge. Responses can demonstrate learning and competence in applying critical knowledge. The use of case vignettes for this purpose has considerable predictive value. Vignettes, or written case simulations, have been widely used as indicators of actual practice behavior. [1]

2. **Practitioner Confidence**

    Confidence with the information relates directly to the likeliness of actively using knowledge. Practitioner confidence in his/her ability to diagnose and treat a disease or condition can affect practice behavior patterns.

3. **Level 5: Self-Reported Intent to Make Changes in Practice Behavior**

1. Peabody, J.W., J. Luck, P. Glassman, S. Jain, J. Hansen, M. Spell and M. Lee (2004). *Measuring the quality of physician practice by using clinical vignettes: a prospective validation study.* Ann Intern Med14(10): 771-80.

Outcome Study Methodology (Cont.)

4. **Readiness to Change Behavior (Prochaska and DeClemente Model)**
   CME activities can motivate providers to move through different stages of change which can ultimately lead them to take action and modify their practice behavior in accordance with the objectives of the education. Movement through these stages of change is an important dependent variable to consider in evaluating the impact of CME. Participants were asked to evaluate their stage of change with respect to specific topics being presented.

   - **Pre-contemplation stage**: I do not manage (IPF), nor do I plan to this year.
   - **Contemplation stage:** I did not manage (IPF) before this course, but as a result of attending this course I'm thinking of managing it now.
   - **Pre-contemplation/confirmation stage**: I do manage patients with (IPF) and this course confirmed that I do **not** need to change my treatment methods.
   - **Preparation for action stage**: I do manage patients with (IPF) and this course helped me change my treatment methods.

Prochaska, et al (1988). *Journal of Consulting and Clinical Psyhcology*., 56, 520-528.

Idiopathic Pulmonary Fibrosis: How to Use our New Treatments

Faculty

Felipe Martinez, MD
Thoracic Radiologist, Advanced Lung Disease Clinic
Cleveland Clinic Florida
Weston, FL

Learning Objectives

- Discuss the appropriate strategy for the diagnosis of idiopathic pulmonary fibrosis (IPF)

- Recognize prognostic features for individual IPF patients

- Discuss appropriate pharmacotherapeutic options for individual IPF patients

- Appreciate the optimal timing for referral of IPF patients

Key Findings
Idiopathic Pulmonary Fibrosis: How to Use our New Treatments
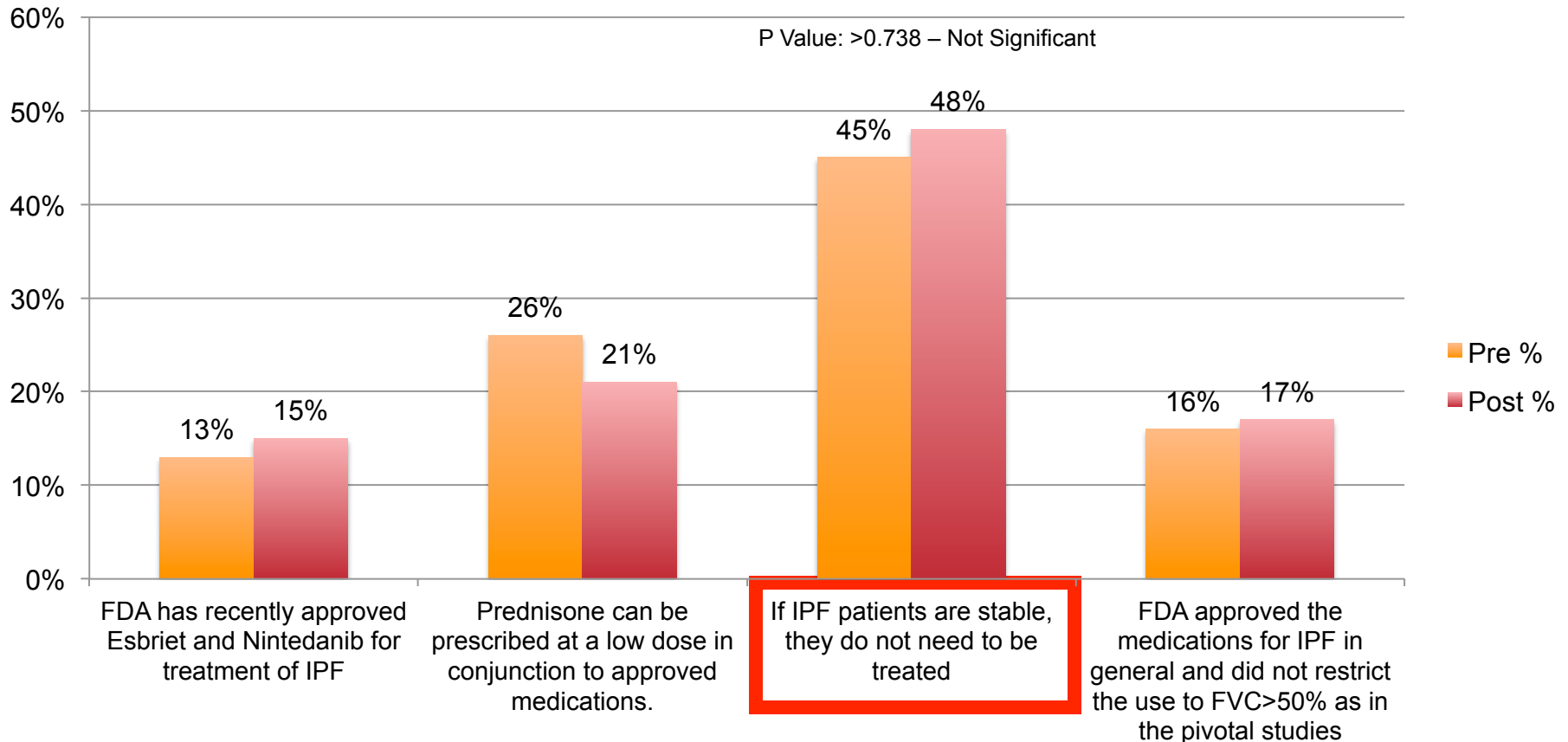
Knowledge/Competence	Learners demonstrated improvement from pre to post-testing in their answers to two out of five of the case-based questions regarding Idiopathic Pulmonary Fibrosis.
Confidence	Whereas only 26% of learners rated themselves as having moderate to high levels of confidence in their understanding of treating Idiopathic Pulmonary Fibrosis before the education 59% of the learners showed gains in confidence after the program.
Intent to Perform	As a result of this program, 25% of learners who did not manage patients with Idiopathic Pulmonary Fibrosis before are considering doing so, while 39% indicated that they will change their treatment methods.
Change of Practice Behavior N=60	92% 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 they attended the activity.

Case Vignette Knowledge and Competence Assessment Questions
presented before and after lecture. Boxed answer is correct

Regarding therapy, which statement is not true:

P Value: >0.738 – Not Significant

- FDA has recently approved Esbriet and Nintedanib for treatment of IPF — Pre 13%, Post 15%
- Prednisone can be prescribed at a low dose in conjunction to approved medications. — Pre 26%, Post 21%
- If IPF patients are stable, they do not need to be treated — Pre 45%, Post 48%
- FDA approved the medications for IPF in general and did not restrict the use to FVC>50% as in the pivotal studies — Pre 16%, Post 17%
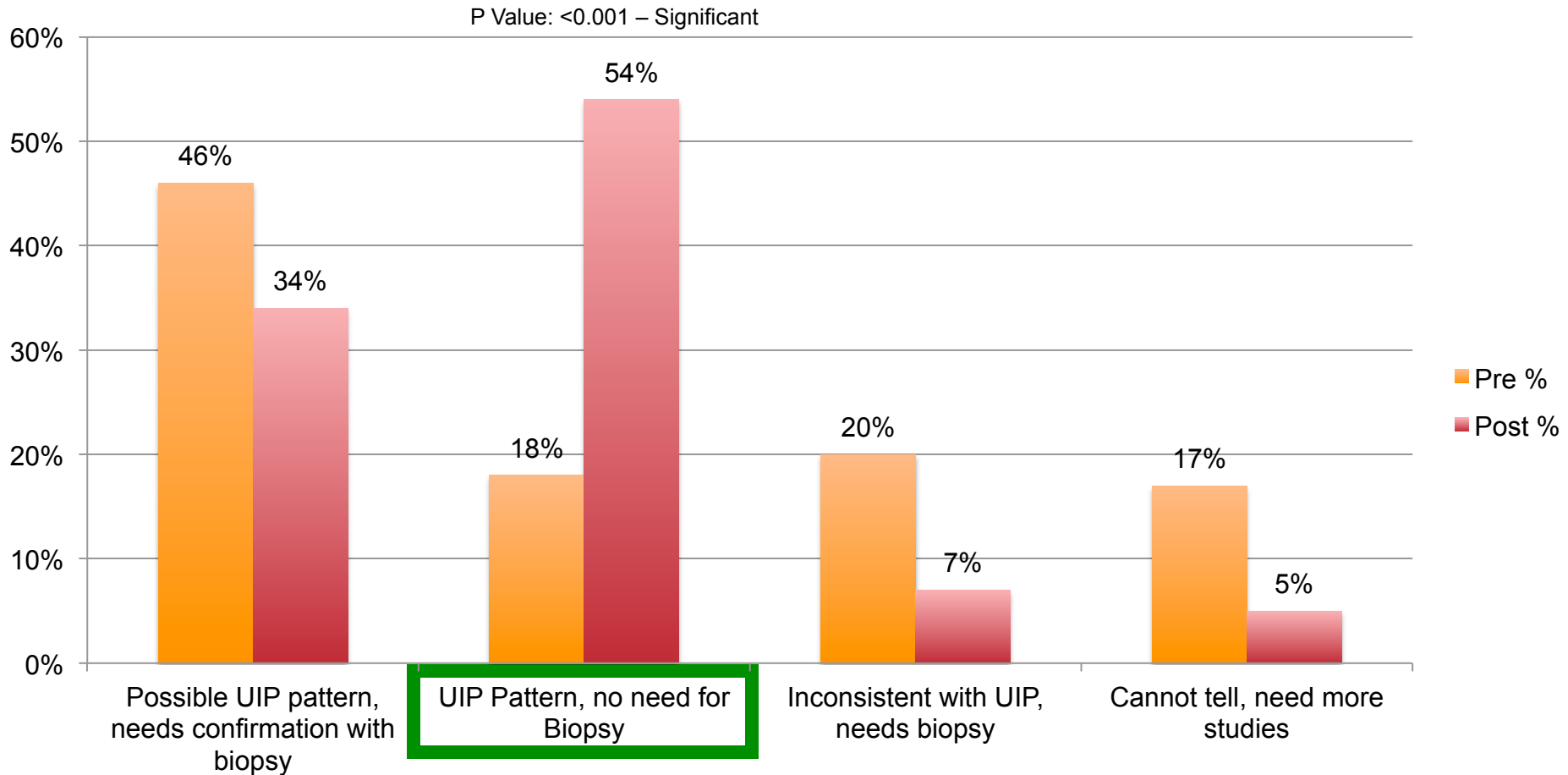
Pre N =88
Post N = 96

Red highlight indicates no significant difference between pre and post testing.

Case Vignette Knowledge and Competence Assessment Questions
(Presented before and after lecture. Boxed answer is correct.)

65 yo male with SOB and ILD, HRCT findings?

P Value: <0.001 – Significant

- Pre %
- Post %

Possible UIP pattern, needs confirmation with biopsy — 46% / 34%

UIP Pattern, no need for Biopsy — 18% / 54%

Inconsistent with UIP, needs biopsy — 20% / 7%
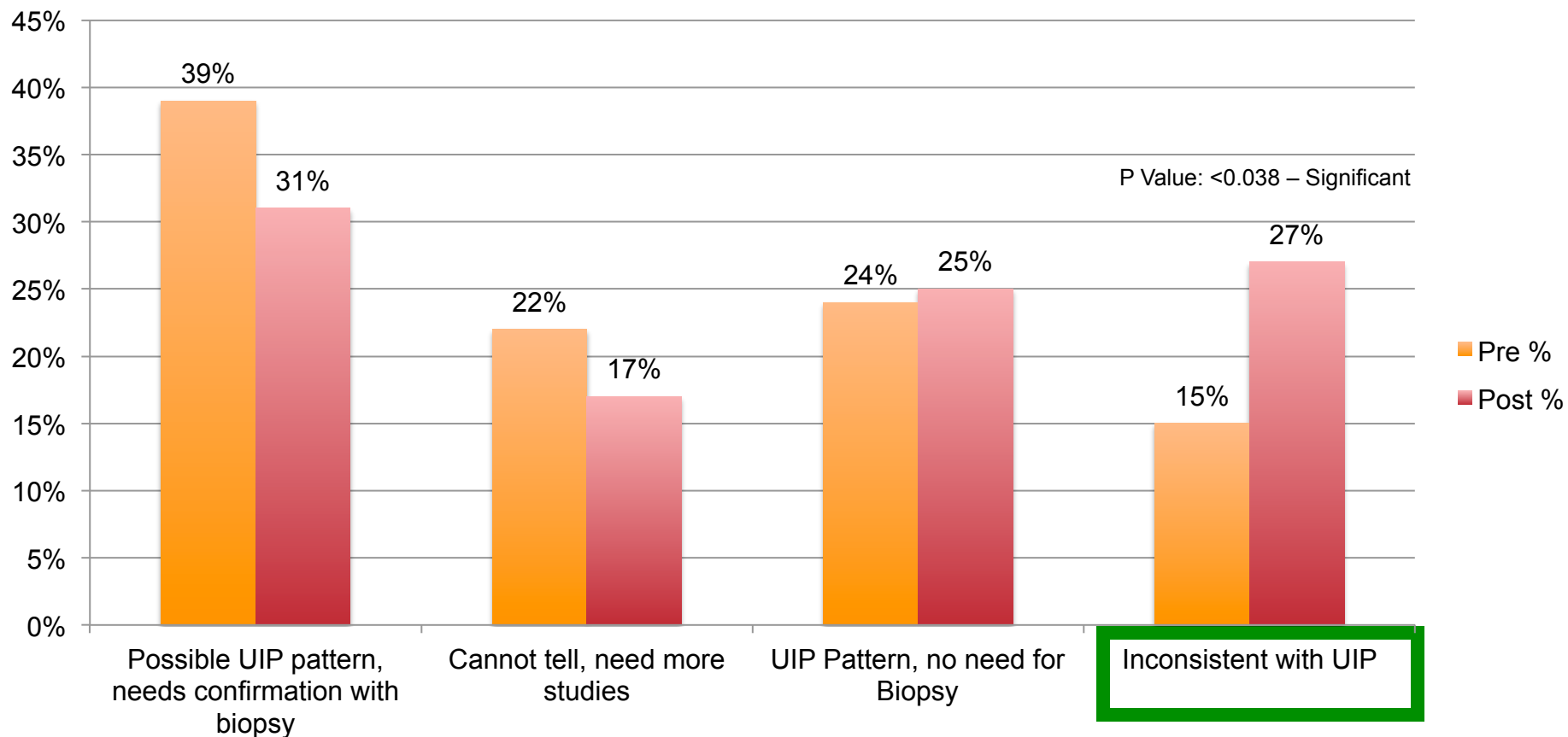
Cannot tell, need more studies — 17% / 5%

Pre N = 90
Post N = 97

Green highlight indicates significant difference between pre and post testing.

Case Vignette Knowledge and Competence Assessment Questions
(Presented before and after lecture. Boxed answer is correct.)

52 yo female with SOB and ILD, HRCT findings?

P Value: <0.038 – Significant

Legend: Pre %, Post %

Category	Pre %	Post %
Possible UIP pattern, needs confirmation with biopsy	39%	31%
Cannot tell, need more studies	22%	17%
UIP Pattern, no need for Biopsy	24%	25%
Inconsistent with UIP	15%	27%

Pre N = 89
Post N = 88

Green highlight indicates significant difference between pre and post testing.

Case Vignette Knowledge and Competence Assessment Questions
(Presented before and after lecture. Boxed answer is correct.)

HRCT report impression "UIP pattern, unchanged compared to 2008". Correct answer?

P Value: >0.687 – Not Significant
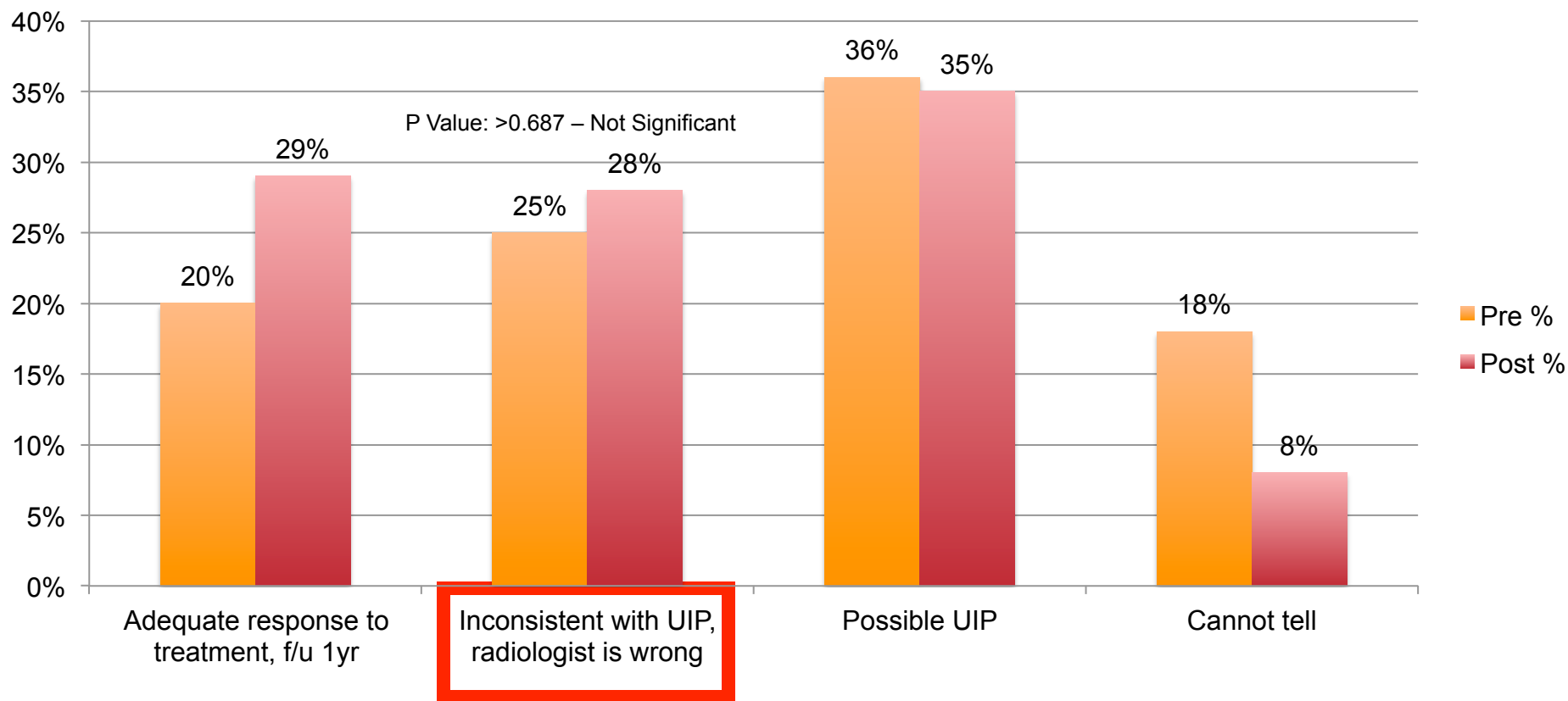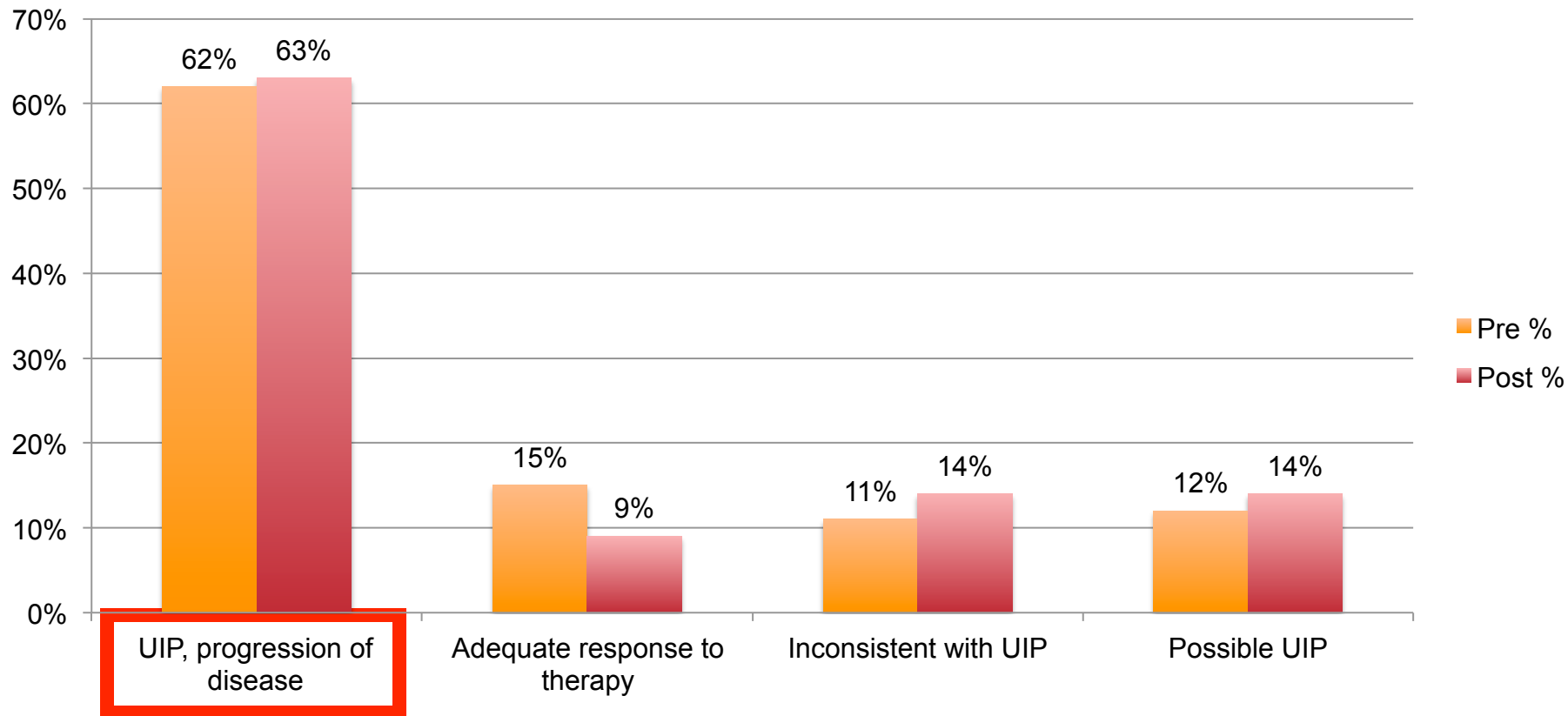
Pre N =88
Post N = 83

Red highlight indicates no significant difference between pre and post testing.

Case Vignette Knowledge and Competence Assessment Questions
(Presented before and after lecture. Boxed answer is correct.)

Based on imaging, the correct answer is?
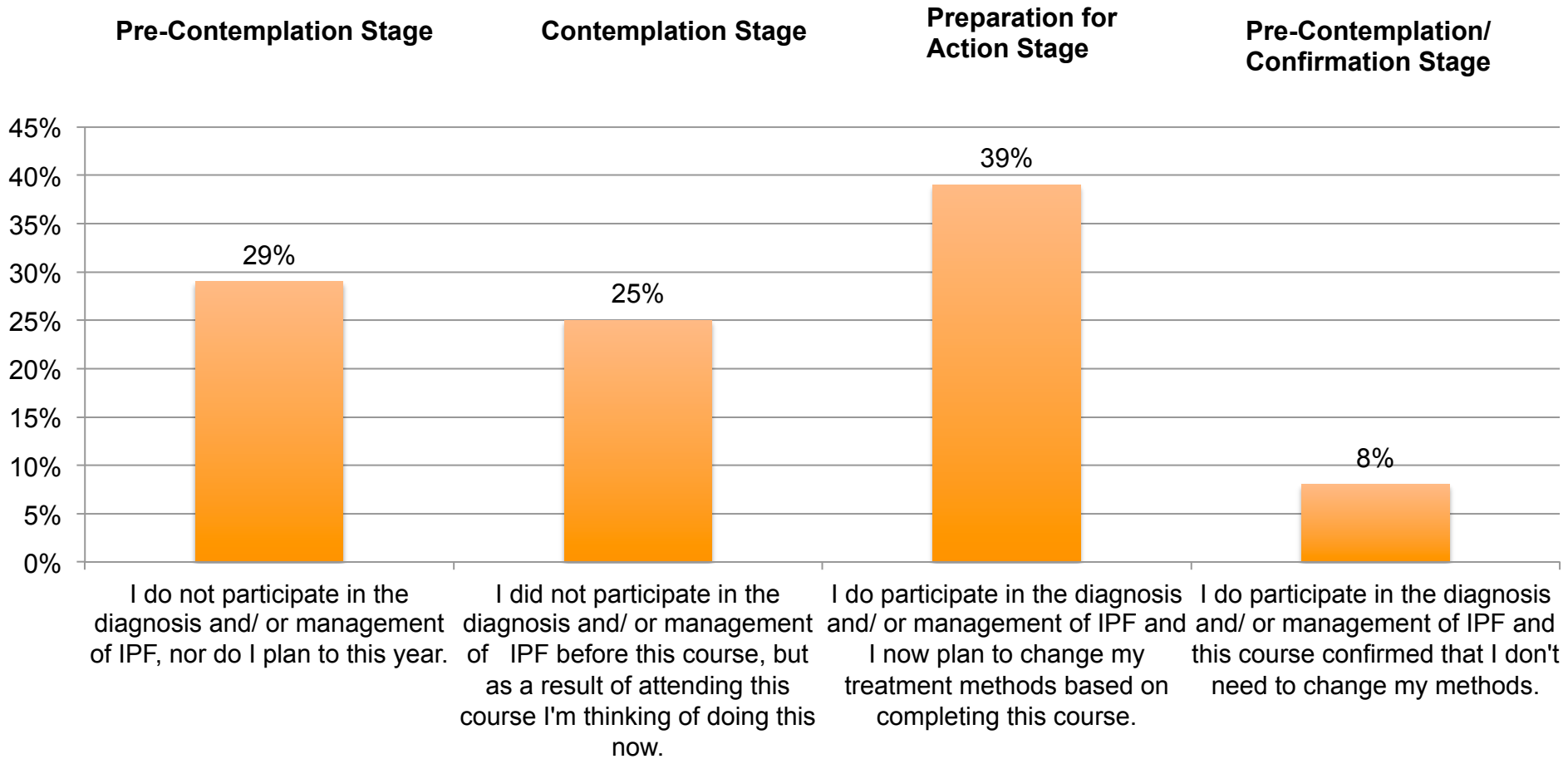
P Value: >0.880 – Not Significant

Pre N = 85
Post N = 93

Red highlight indicates no significant difference between pre and post testing.

Change in Practice Behavior Question
Presented after lecture.

Which of the statements below describes your approach to participating in the diagnosis and/ or management of interstitial pulmonary fibrosis (IPF):

Pre-Contemplation Stage — I do not participate in the diagnosis and/ or management of IPF, nor do I plan to this year. — 29%

Contemplation Stage — I did not participate in the diagnosis and/ or management of IPF before this course, but as a result of attending this course I'm thinking of doing this now. — 25%

Preparation for Action Stage — I do participate in the diagnosis and/ or management of IPF and I now plan to change my treatment methods based on completing this course. — 39%

Pre-Contemplation/ Confirmation Stage — I do participate in the diagnosis and/ or management of IPF and this course confirmed that I don't need to change my methods. — 8%

N = 80

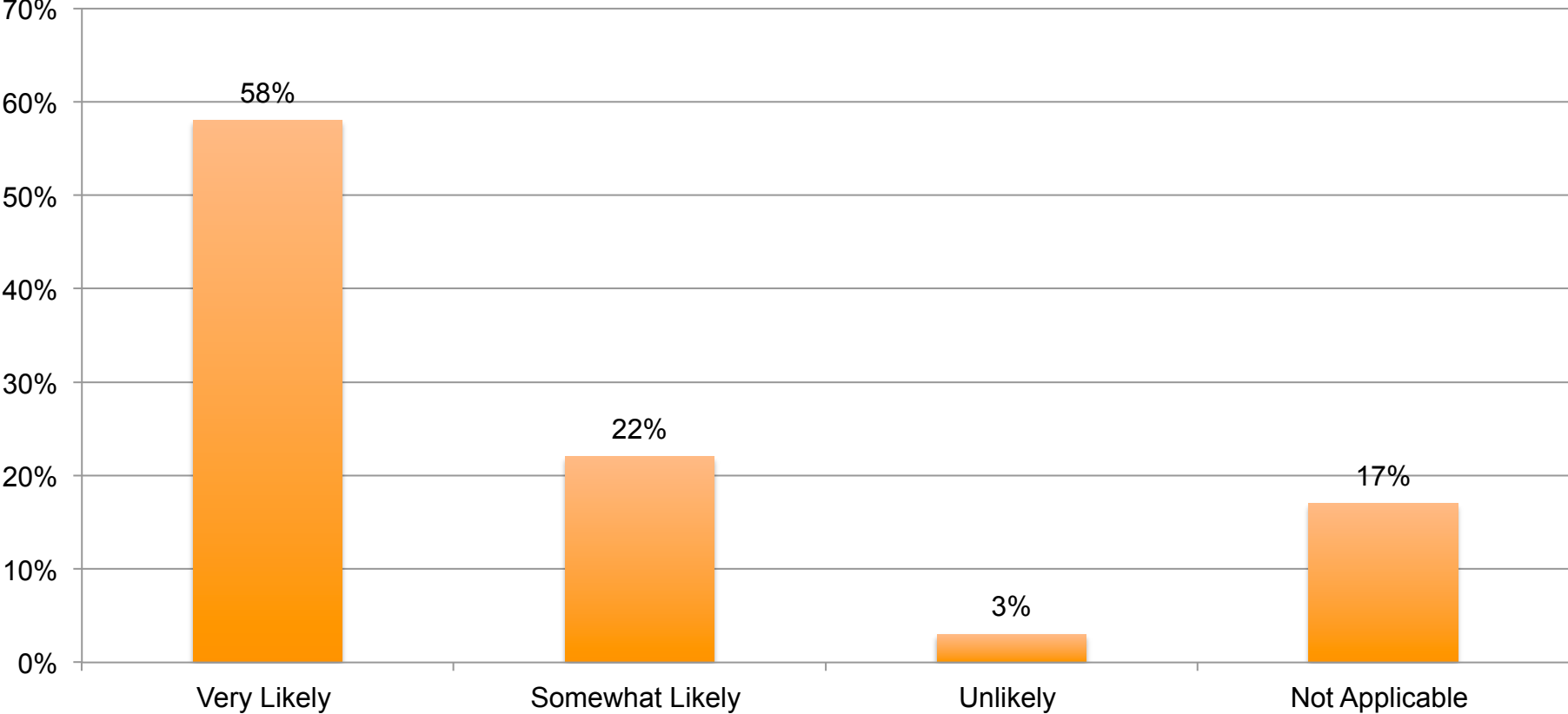# Changes in Confidence from Pre to Post-Testing
Idiopathic Pulmonary Fibrosis: How to Use our New Treatments

On a scale of 1 to 5, please rate how confident you would be in the diagnosis and/ or management of a patient with interstitial pulmonary fibrosis (IPF):
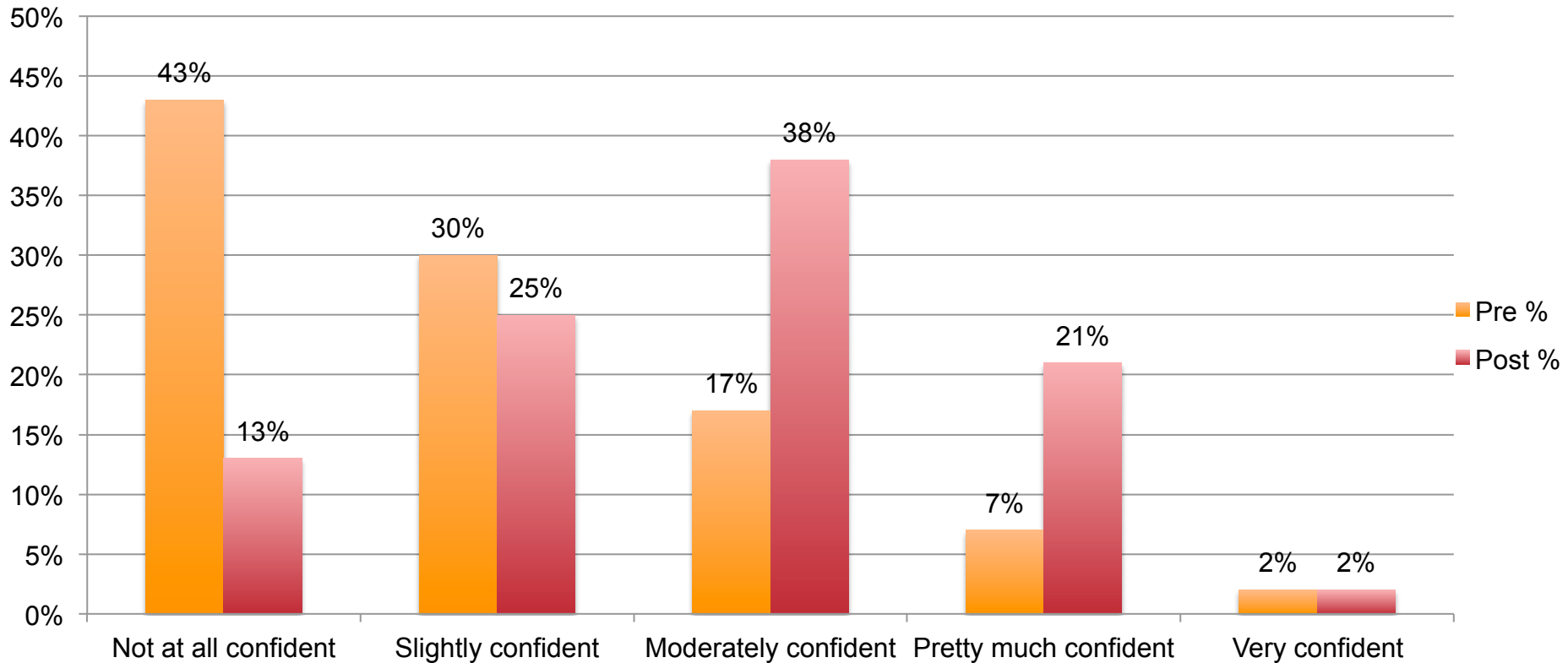
Pre N =81
Post N = 89

Intention to Change Practice Behavior and Implement Learning

N =146

Discussion and Implications
Idiopathic Pulmonary Fibrosis: How to Use our New Treatments

Idiopathic pulmonary fibrosis (IPF) is a chronic, progressive fibrosing interstitial pneumonia of unknown cause, occurring primarily in older adults, limited to the lungs, and associated with the histopathologic and/or radiologic pattern of usual interstitial pneumonia. Early diagnosis of IPF is desirable because it allows for new treatments, avoidance of inappropriate drugs, and access to clinical trials. However, diagnosis is a challenge, and there is often considerable delay in making a diagnosis. The objective of this activity was to enable learners to describe procedures used to diagnosis IPF, identify prognostic features of the condition, apply appropriate pharmacological and supportive therapies,.

Knowledge/Competence: Attendee knowledge was assessed at two points for this activity—prior to the activity and immediately following the activity using the case vignettes and knowledge questions listed above. The results indicated improvement in knowledge in all five questions (two with statistical significance). This suggest despite being satisfied with the program, the learners still have gaps in terms of diagnostic algorithm and therapy. Considering the new changes in the field and evolving understanding this is not un-expected.

Readiness to Change: Thirty nine percent of attendees noted that they currently treat patients with IPF and that this activity provided information that would lead to further changes in their care of patients with IPF. Twenty fine percent of the learners indicated that they did not treat patients with IPF prior to this activity, but would consider doing so after having been exposed to the information taught.

Confidence: Twenty six percent of learners had above a moderate level of confidence prior to the activity. After the activity confidence of attendees improved to 59% to moderate and above (somewhat and very confident).

Intention to Change in Practice Behavior: Fifty eight percent of participants reported that they were very likely to utilize information learned from this activity in their practice.

Summary: Eighty percent of attendees suggested they were likely or very likely to change their practice patterns as a result of this event. Based on the data collected at this educational activity, there appears to be a need for further education on this topic.