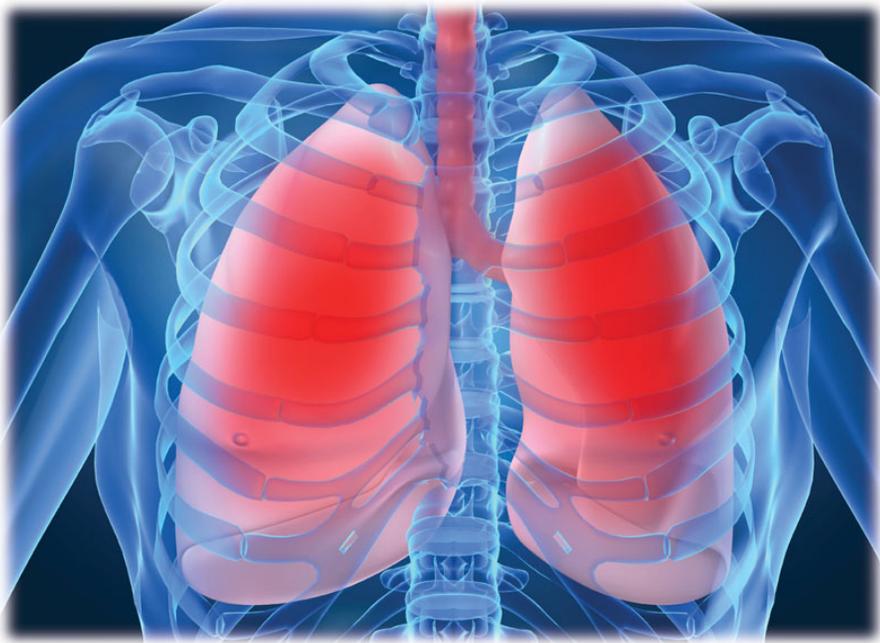




NATIONAL ASSOCIATION FOR CONTINUING EDUCATION



New Directions in Treatment of
Asthma

Final Outcome Report

Challenges in Pulmonary and Critical Care: 2012

**Presented at:
Cleveland Clinic Florida
Weston, Florida
December 1, 2012**

Report Date: May 2, 2013

Course Director

Franck Rahaghi, MD, MHS, FCCP

Director, Pulmonary Hypertension Clinic

Director, Pulmonary Education and Rehabilitation

Chair of Quality

Cleveland Clinic Florida

Weston, FL

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 7 *AMA PRA Category 1 Credits*[™]. Physicians should only claim the credit commensurate with the extent of their participation in the activity.

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of University of Massachusetts Medical School and the National Association for Continuing Education. The University of Massachusetts Medical School is accredited by the ACCME to provide continuing medical education for physicians.

The University of Massachusetts Medical School designates this live activity for a maximum of 1 *AMA PRA Category 1 Credit*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Commercial Support

Challenges in Pulmonary and Critical Care: 2012 CME activity was supported through educational grants or donations from the following companies:

Actellion

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Hospira, Inc.

United Therapeutics Corporation

Agenda

7:15-7:50	Continental Breakfast and Registration	12:15- 1:00	Lunch Break/Exhibits
7:50-8:00	Welcome Remarks Franck Rahaghi, MD, MHS, FCCP	1:00-2:00	Idiopathic Pulmonary Fibrosis: Updates from IPFNET and New Horizons Robert Kaner, MD
8:00-9:00	Electromagnetic Navigation Bronchoscopy and Bronchial Thermoplasty: Two Techniques That Are Revolutionizing Bronchoscopy Eduardo Oliveira, MD, MBA	2:00-3:00	New Directions in Treatment of Asthma Raed A. Dweik, MD
9:00-10:00	COPD: New Developments, New Treatment Horizons Charlie Strange, MD	3:00-3:15	Break/Exhibits
10:00- 10.15	Break/Exhibits	3:15-4:15	Sedation in the ICU Jinesh Mehta, MD
10:15-11:15	Alpha-1 Antitrypsin Deficiency: How to Change Franck Rahaghi, MD, MHS, FCCP	4:15-5:315	Management of Chronic Cough Gustavo Ferrer, MD
11:15-12:15	Pulmonary Hypertension: A Disease Evolution Ioana Preston, MD	5:15-5:30	Closing Remarks Franck Rahaghi, MD, MHS, FCCP

Levels of Evaluation

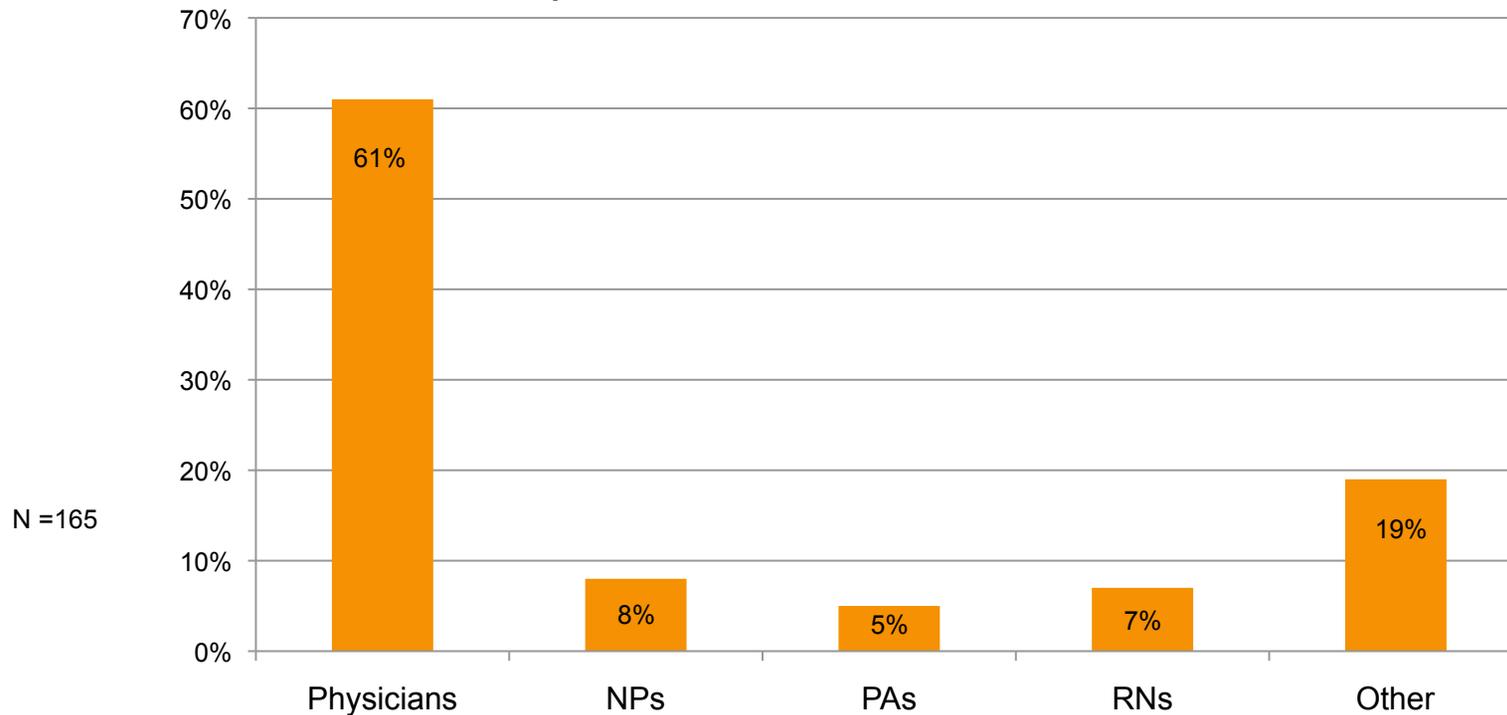
Consistent with the policies of the ACCME, NACE evaluates the effectiveness of all CME activities using a systematic process based on the following model:

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

- 122 attendees
- 61% Physicians; 8% NPs; 5% PAs; 7% RNs; 19% Other
- Over 40% in community-based practice
- 37% PCPs, 40% Pulmonologists; 3% Rheumatology; 3% Cardiologists; 17% Other or did not respond



Did we reach the right audience? **Yes!**

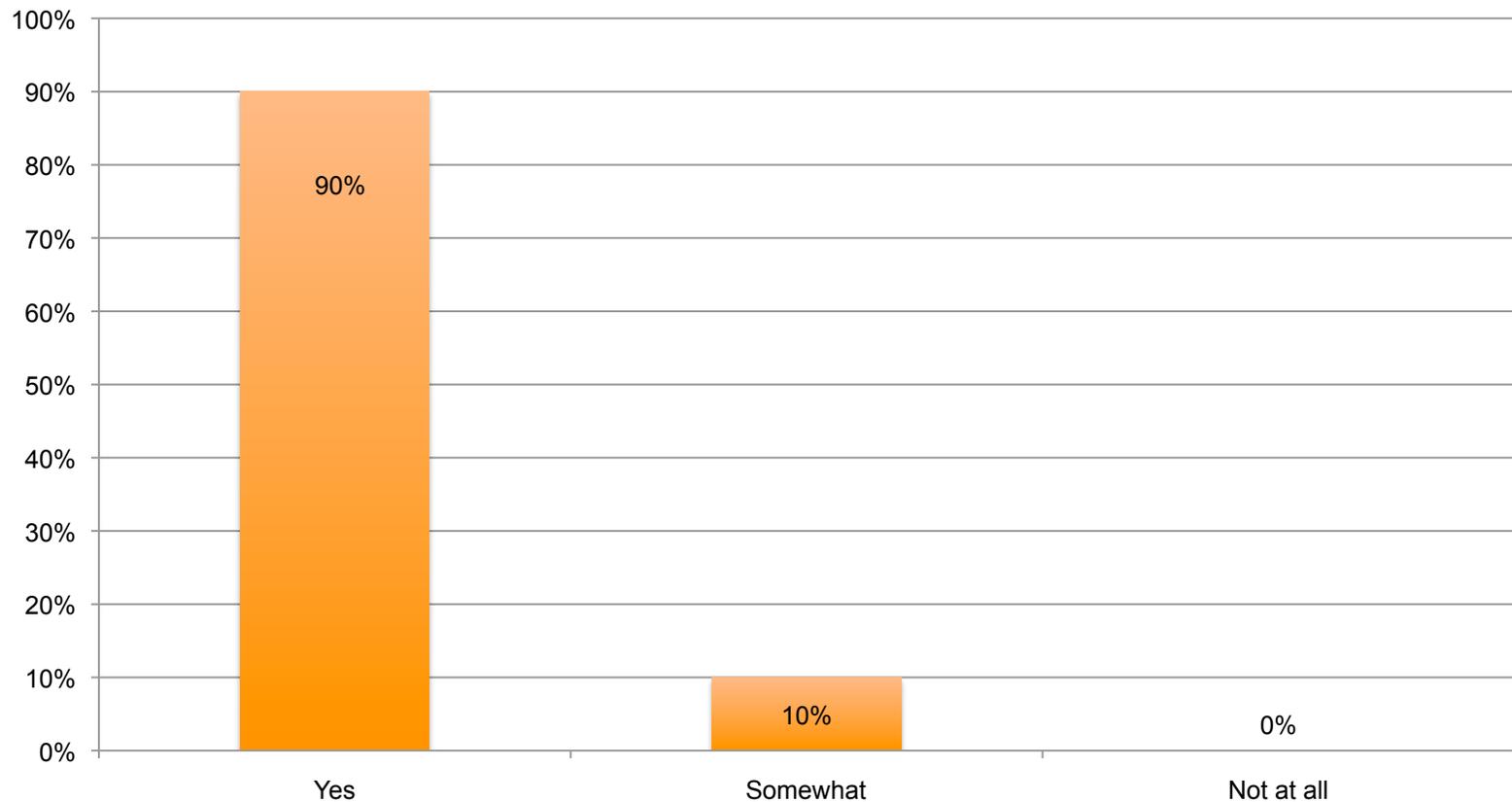
Level 2: Satisfaction

- 97% rated the activity as very good to excellent
- 99% indicated the activity improved their knowledge
- 95% stated that they learned new strategies for patient care
- 89% said they would implement new strategies that they learned in their practice
- 100% said the program was fair-balanced and unbiased

Were our learners satisfied? **Yes!**

Level 2: Satisfaction

Upon completion of this activity, I can now – Explain the philosophy of the new asthma recommendation; Discuss utilization of individualized therapy for patients with asthma; Examine novel asthma therapies and future directions:



Did learners indicate they achieved the learning objectives?

Yes! 100% 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 Change in Practice Behavior

Four weeks after CME activity, practitioners are asked if they changed 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 Med 14(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 (XXX illness), nor do I plan to this year.
- **Contemplation stage:** I did not manage (XXX illness) 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 (XXX illness) and this course confirmed that I do **not** need to change my treatment methods.
- **Preparation for action stage:** I do manage patients with (XXX illness) and this course helped me change my treatment methods.

New Directions in Treatment of Asthma

Faculty

Raed A. Dweik, MD

Professor of Medicine at the Cleveland Clinic Lerner College of Medicine of
Case Western Reserve University

Asthma Center of the Respiratory Institute of the Cleveland Clinic, Ohio
Director of the Pulmonary Vascular Program
Cleveland, OH

Learning Objectives

- Explain the philosophy of the new asthma recommendation
- Discuss utilization of individualized therapy for patients with asthma
- Examine novel asthma therapies and future directions

Key Findings

New Directions in Treatment of Asthma

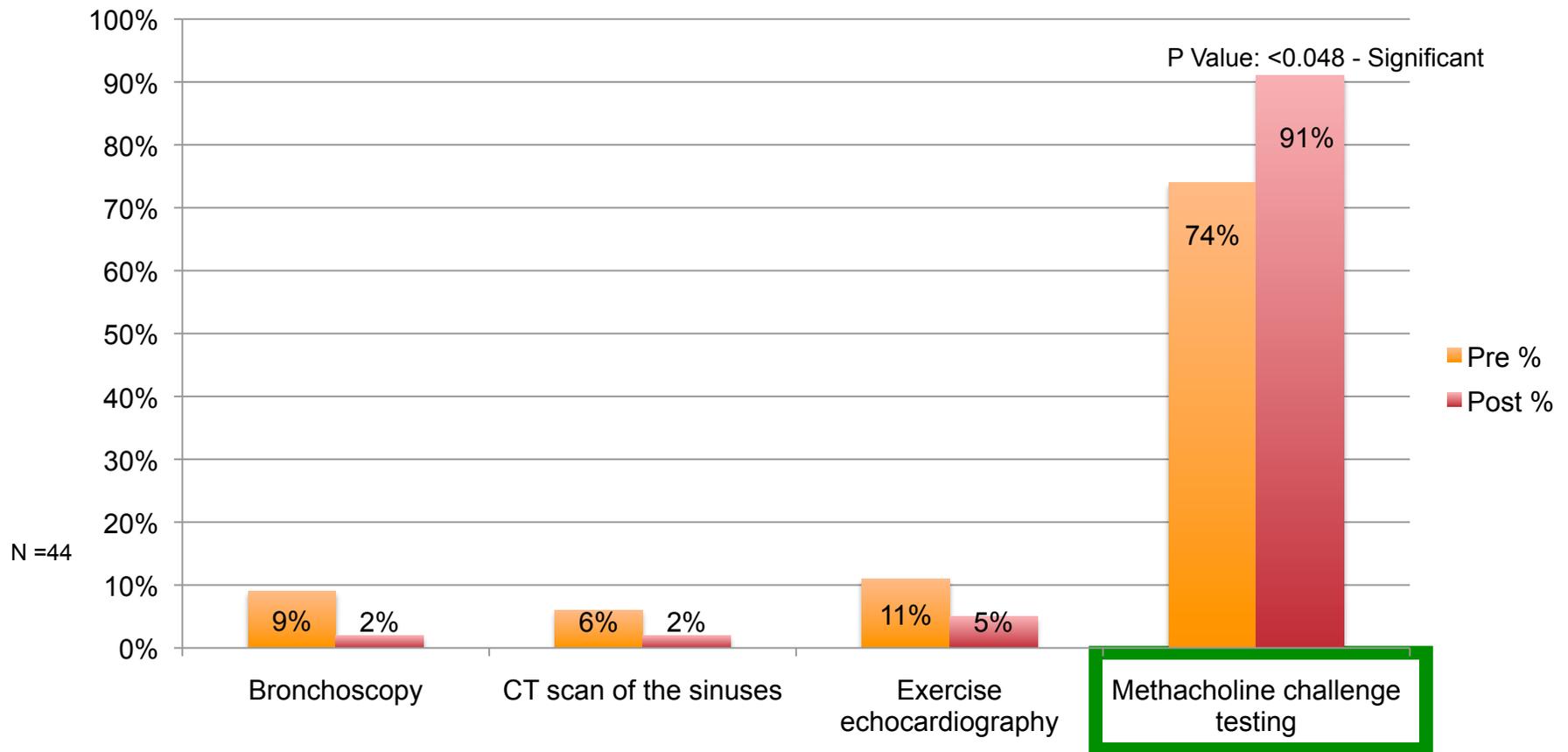
Knowledge/Competence	Learners demonstrated significant improvement in their answers from pre to post-testing on one of the three case-based questions regarding Asthma.
Confidence	Whereas the majority of learners rated themselves as having moderate confidence in their understanding of treating Asthma before the education most of the learners showed very high gains in confidence after the program.
Intent to Perform	As a result of this program, 7% of learners who did not manage Asthma before are considering doing so, while 57% indicated that they will change their treatment methods.
Change of Practice Behavior N=57	100% 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.)

A 58 y/o woman is evaluated for a 2 year history of episodic cough and chest tightness. Her symptoms began after a severe respiratory tract infection. Since then, she has had cough and chest discomfort after similar infections, typically lasting several weeks before resolving. She feels well between episodes. She is otherwise healthy and takes no medications. Physical exam reveals no abnormalities.

Which of the following is the most appropriate next step in the evaluation of this patient?



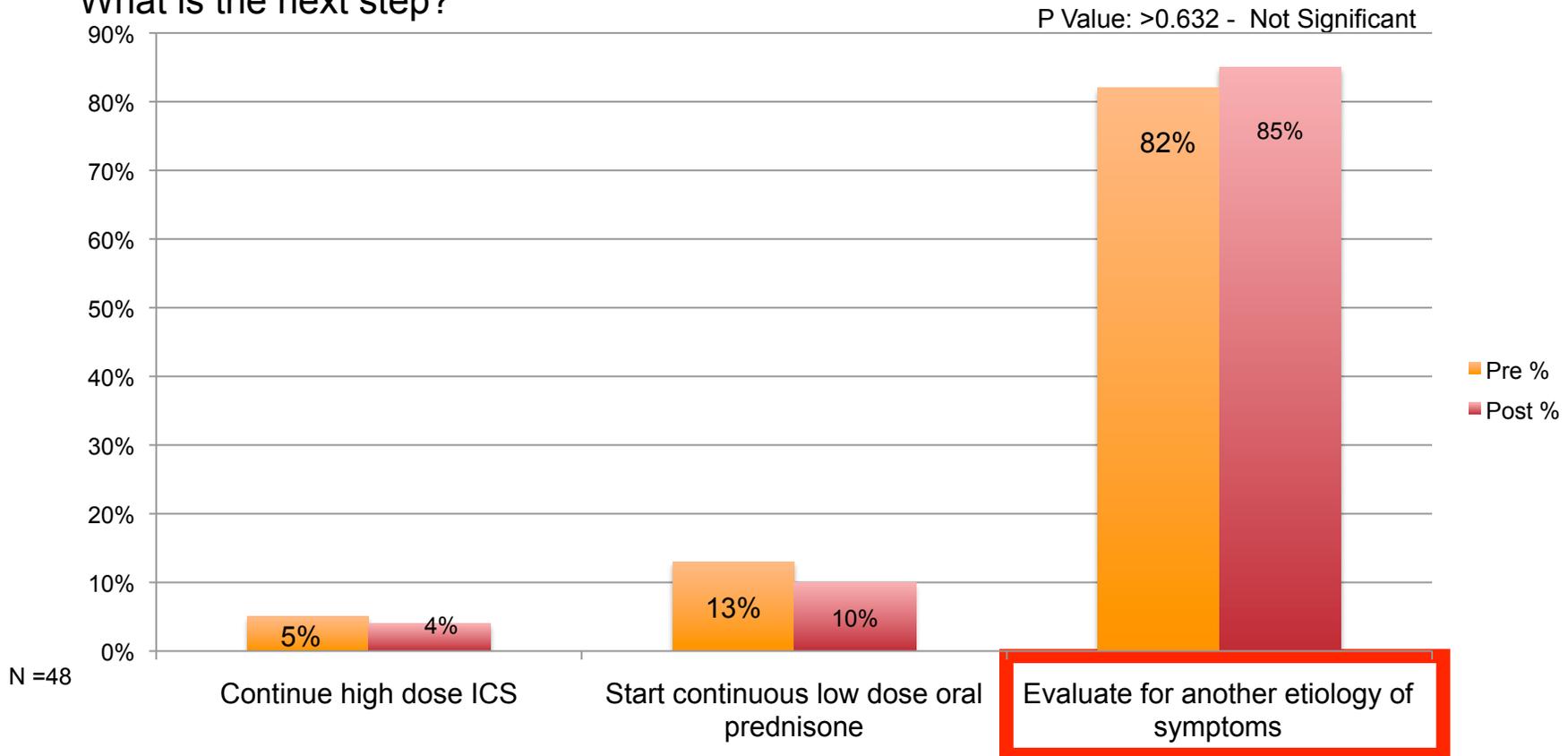
Green highlight indicates significant difference between pre and post testing.

Case Vignette Knowledge and Competence Assessment Questions

(Presented before and after lecture. Boxed answer is correct.)

A 38-year old female with life-long asthma presents with a 12 month history of increasingly poor asthma control. Relevant history: 4 courses of oral prednisone over 12 months. Asthma therapy: maximal doses of LABA+ICS combination bid, taking up to 12 puffs of albuterol per day but with limited benefit. Asthma control: significant limitation in daily activities and occasional night waking even when taking prednisone. Normal lung exam. Normal FEV1 (82% of predicted). FENO: 16 ppb, no prior value.

What is the next step?



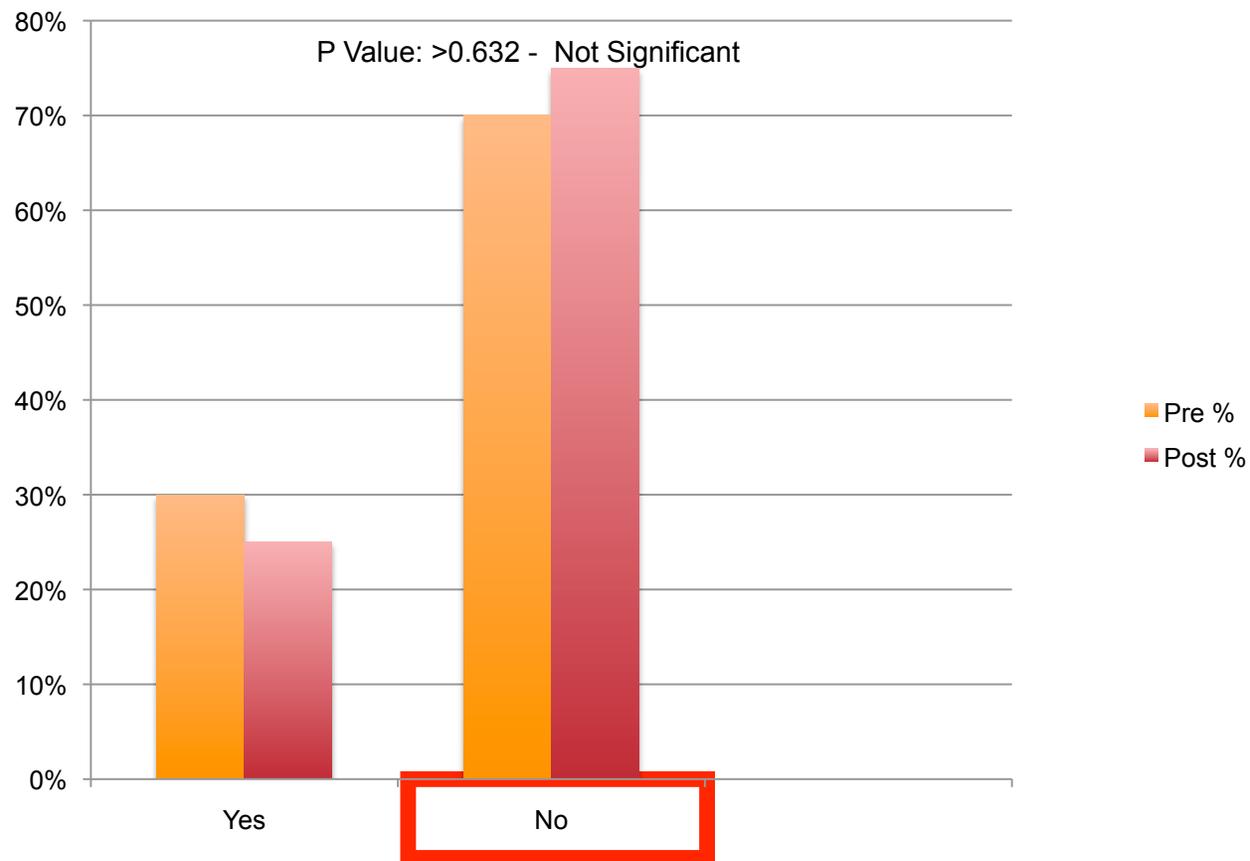
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Case Vignette Knowledge and Competence Assessment Questions

(Presented before and after lecture. Boxed answer is correct.)

Follow up visit: 35-year-old female, developed asthma at age 22. Uses SABA 2 times per day. She awakens at night with wheezing four times per month. Daily Medication: low dose ICS, PFT: FEV193% baseline, 97% post dilator.

Is her asthma well controlled?

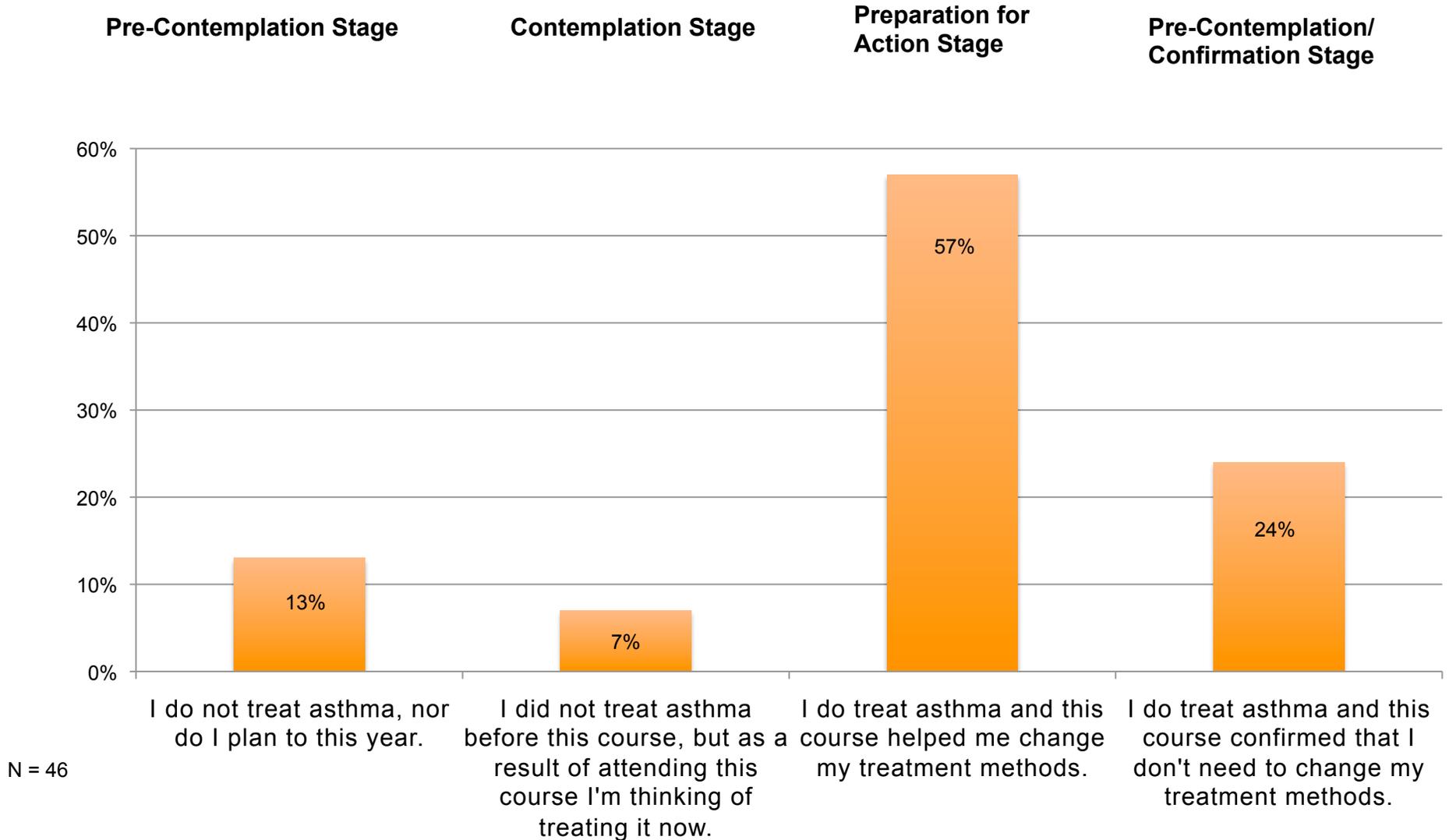


N = 52

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

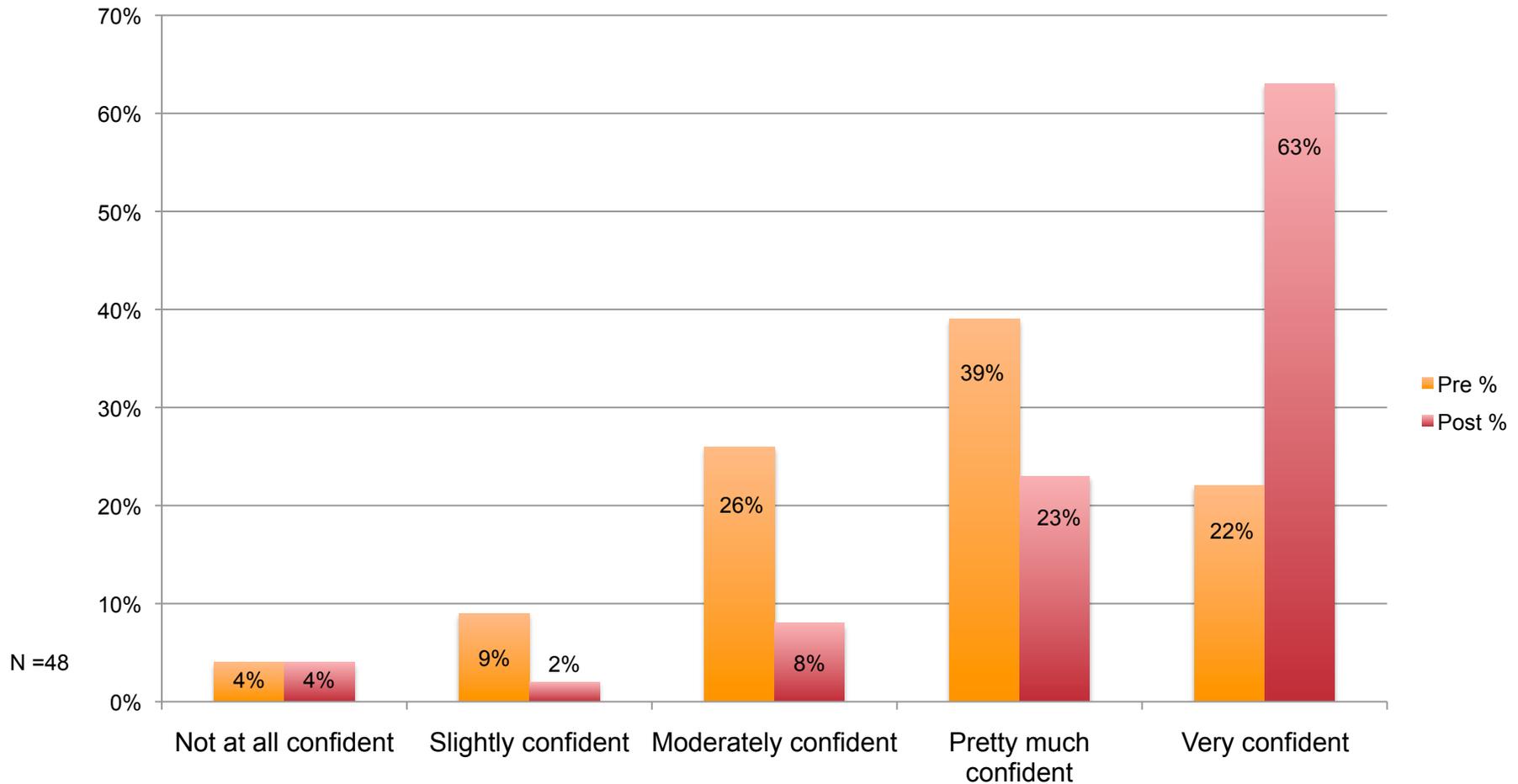
Change in Practice Behavior Question Presented after lecture.

Which of the statements below describes your approach to anticoagulation of patients with Asthma?

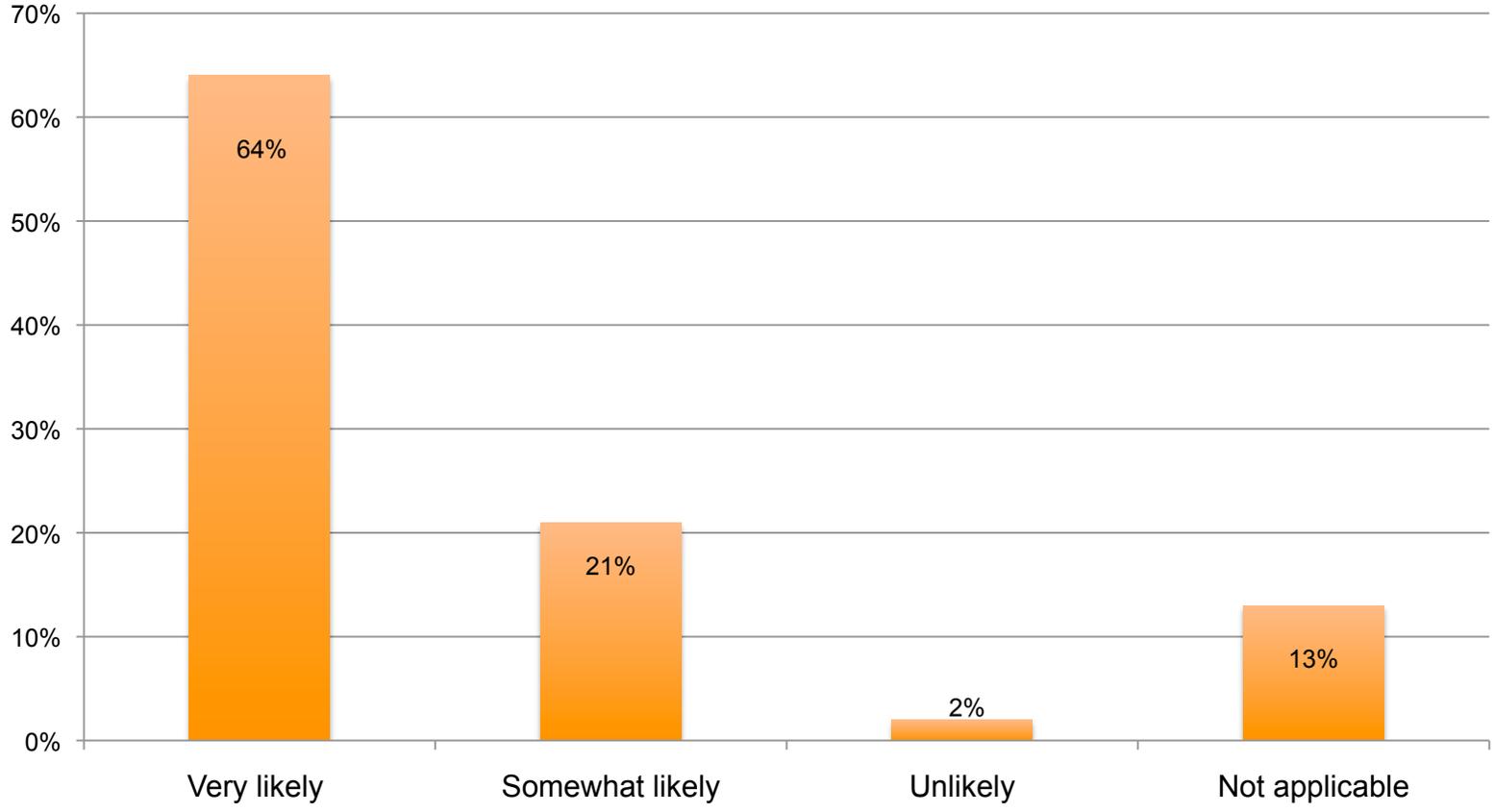


Changes in Confidence from Pre to Post-Testing New Directions in Treatment of Asthma

On a scale of 1 to 5 please rate how confident you would be in treating patients with this condition.



Intention to Change Practice Behavior and Implement Learning



N = 165

Discussion and Implications

New Directions in Treatment of Asthma

The burden of asthma affects patients, their families, and society in terms of lost work and school, lessened quality of life, and avoidable emergency department (ED) visits, hospitalizations, and deaths. Over the past two to three decades, clinical trials have shown that asthma control can be achieved in the majority of patients, and there has been a greater understanding of which patients to treat, when to treat, and what treatment approaches to use. However a needs assessment conducted prior to this activity indicated that there remains a significant gap between accepted practices for asthma care and actual practice.

Adherence to management guidelines is inadequate. The objective of this activity was to enable attendees to explain the philosophy of the new asthma recommendations, discuss utilization of individualized therapy for patients with asthma, and examine novel asthma therapies and future directions

Knowledge/Competence: Attendee knowledge was assessed at 2 points for this activity—prior to and immediately following the activity using the case vignettes and questions described earlier. The results indicated an improvement in knowledge in all three questions asked, but the difference was statistically significant for only one of the three questions.

Readiness for Practice Change: Fifty-seven percent of attendees noted that they currently treat patients with Asthma and that this course provided information that would lead to changes in their treatment methods for this condition. Seven percent indicated that they did not treat patients with Asthma prior to taking this course, but would do consider doing so after having been exposed to the information taught.

Confidence: Participants indicated a strong overall increase in self-reported confidence levels in managing patients with this Asthma. Attendees who reported that they felt very confident in their treatment of Asthma rose from 22% to 63% by the end of the activity.

Change in Practice Behavior: Sixty-four percent of participants reported that they were very likely, and 84% reported that they were likely or very likely to change practice patterns and implement learning from this course.

Summary: Future programming should continue to educate clinicians on current guidelines as well as new, effective, therapies for Asthma..