



*Challenges
in Pulmonary and Critical
Care: 2016*



Diagnosis and Treatment Strategies for DVT and PE-Where are we now?

Final Outcome Report

Report Date: March 3, 2017

Course Director

Franck Rahaghi, MD, MHS, FCCP

Director, Pulmonary Hypertension Clinic
Director, Pulmonary Education and Rehabilitation
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 *8.0 AMA PRA Category 1 Credits™*. Physicians should claim only 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 contact hours of continuing education(which includes 2.0 pharmacology hours).

Commercial Support

Challenges in Pulmonary and Critical Care: 2016 CME activity was supported through educational grants from the following companies:

Actelion Pharmaceuticals US, Inc.

Baxalta US Inc.

Bayer Healthcare Pharmaceuticals Inc.

Biodesix

Bristol-Myers Squibb Company

CSL Behring

Grifols

Mallinckrodt Pharmaceuticals

Agenda

7:15-7:45	Registration and Breakfast	12:15- 1:00	Lunch and Exhibits
7:45-8:00	Welcome Remarks Franck Rahaghi, MD, MHS, FCCP	1:00-2:00	Lung Transplant: 2016 Update R. Duane Davis, MD, MBA
8:00-9:00	Pulmonary Arterial Hypertension: Choice of Therapy Franck Rahaghi, MD, MHS, FCCP	2:00-3:00	Update in the Diagnosis and Treatment of Lung Cancer Jinesh P. Mehta, MD
9:00-10:00	Identifying and Managing Patients with Sarcoidosis Robert Baughman, MD	3:00-3:15	Break/Exhibits
		3:15-4:15	COPD: Bridging the Gap to Improve Outcomes Anas Hadeh, MD, FCCP
10:00- 10:15	Break/Exhibits		
10:15-11:15	Idiopathic Pulmonary Fibrosis: Evolving Treatment Options Robert J Kaner, MD	4:15-5:15	Diagnosis and Treatment Strategies for DVT and PE-Where are we now? Carmel Celestin, MD
11:15-12:15	Alpha One Anti-Trypsin Deficiency: Challenges in Diagnosis and Treatment Adam Wanner, MD	5:15-5:30	Concluding Remarks Franck Rahaghi, MD, MHS, FCCP

Levels of Evaluation

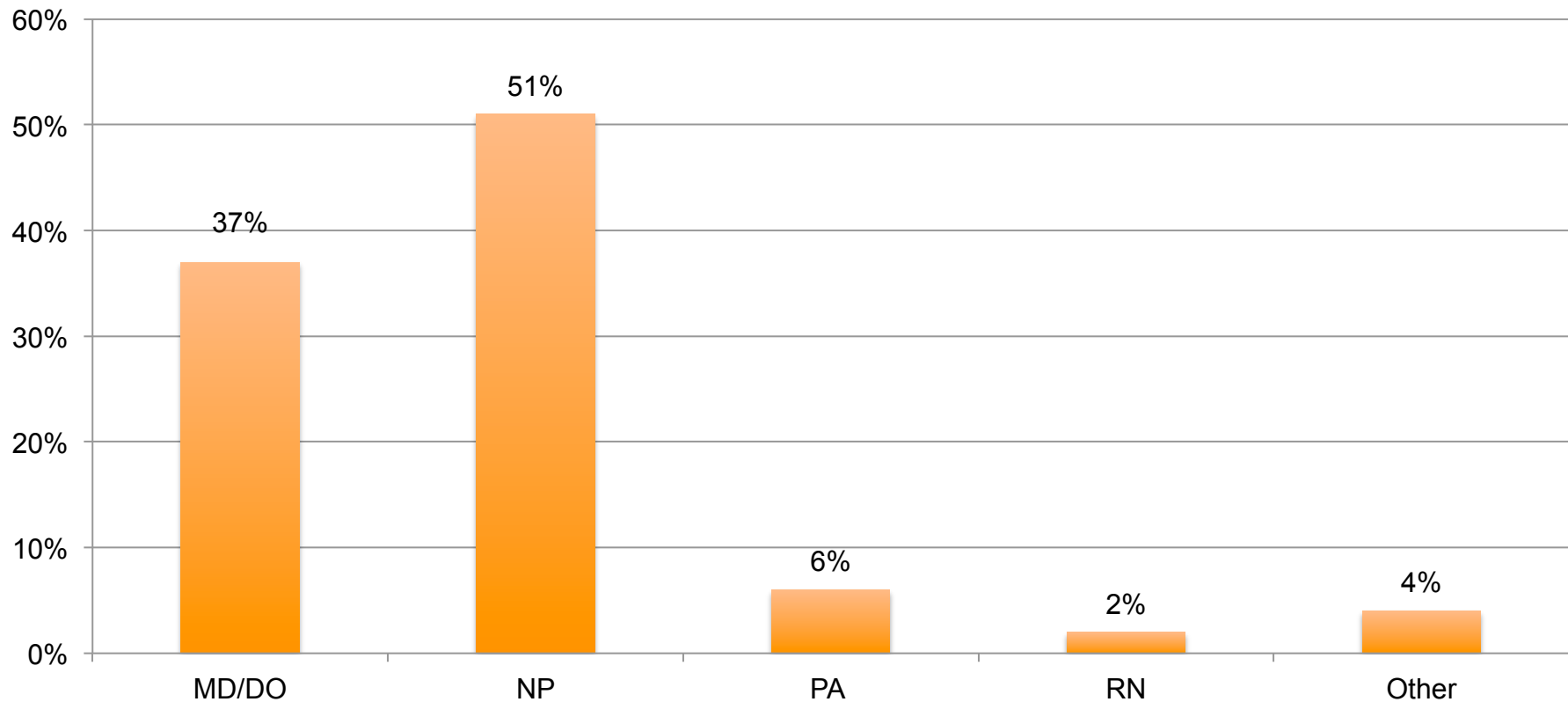
Consistent with the policies of the ACCME, NACE evaluates the effectiveness of all CME activities using a systematic process based on the following model:

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

- 371 attendees (244 Remote Viewers)
- 37% Physicians; 51% NPs; 6% PAs; 2% RNs; 4% Other
- 36% in community-based practice
- 57% PCPs, 24% Pulmonology; 11% Cardiology; 3% Rheumatology 5% Other or did not respond



N = 371

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

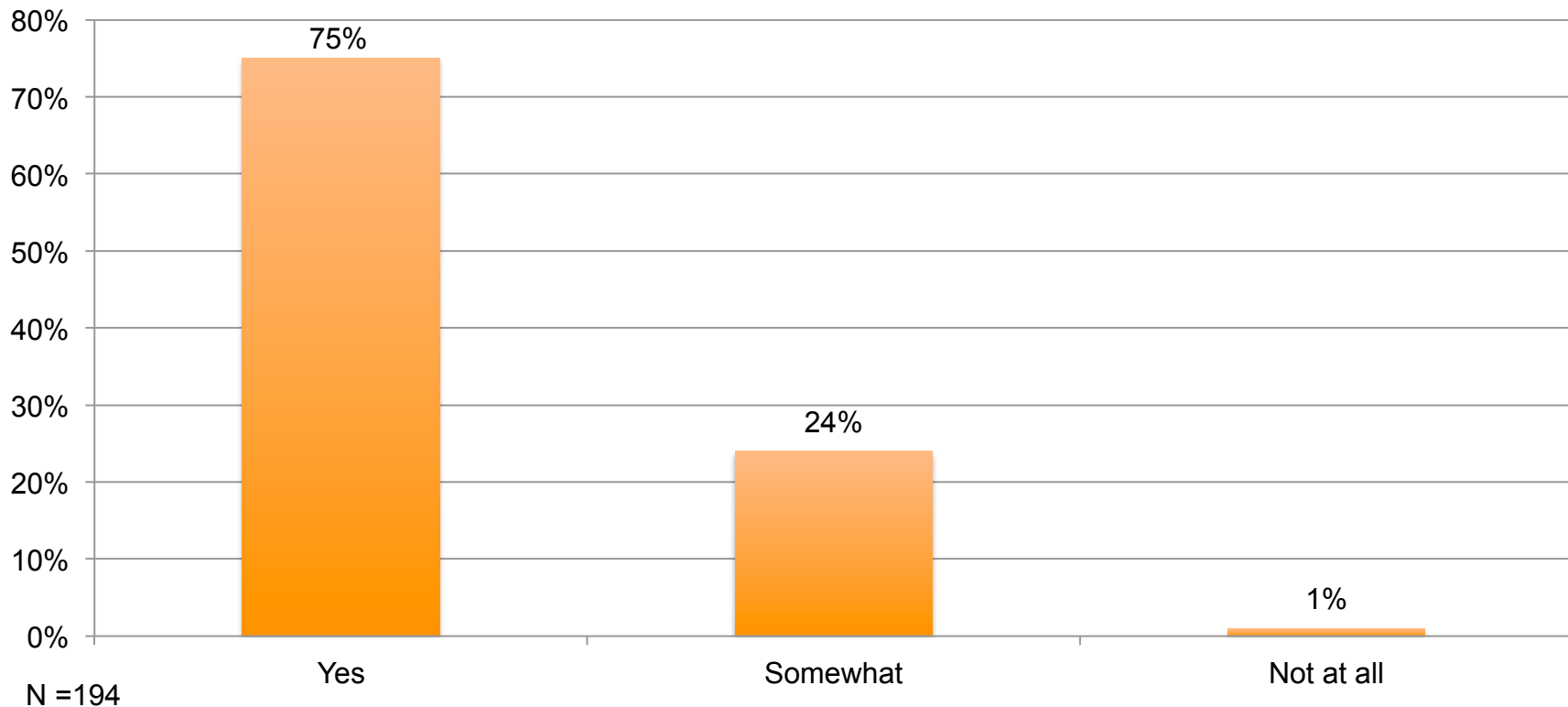
Level 2: Satisfaction

- 98% rated the activity as very good to excellent
- 97% indicated the activity improved their knowledge
- 93% stated that they learned new strategies for patient care
- 97% 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 – Identify patients at risk for venous thromboembolism (VTE) and understand the rationale for, and benefit of thromboprophylaxis; discuss the new oral thrombin and factor Xa inhibitors; review the available data on the use of the new oral anticoagulants in prophylaxis against and treatment of venous thromboembolic disease; and apply evidence based guidelines for the prevention and treatment of venous thromboembolism in different patient populations.



Did learners indicate they achieved the learning objectives?

Yes! 99% 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 Med 14(10): 771-80.

Diagnosis and Treatment Strategies for DVT and PE-Where are we now?

Faculty

Carmel Celestin, MD
Department of Vascular Medicine
Cleveland Clinic Florida
Weston, FL

Learning Objectives

- Identify patients at risk for venous thromboembolism (VTE) and understand the rationale for, and benefit of thromboprophylaxis
- Discuss the new oral thrombin and factor Xa inhibitors
- Review the available data on the use of the new oral anticoagulants in prophylaxis against and treatment of venous thromboembolic disease
- Apply evidence based guidelines for the prevention and treatment of venous thromboembolism in different patient populations

Key Findings

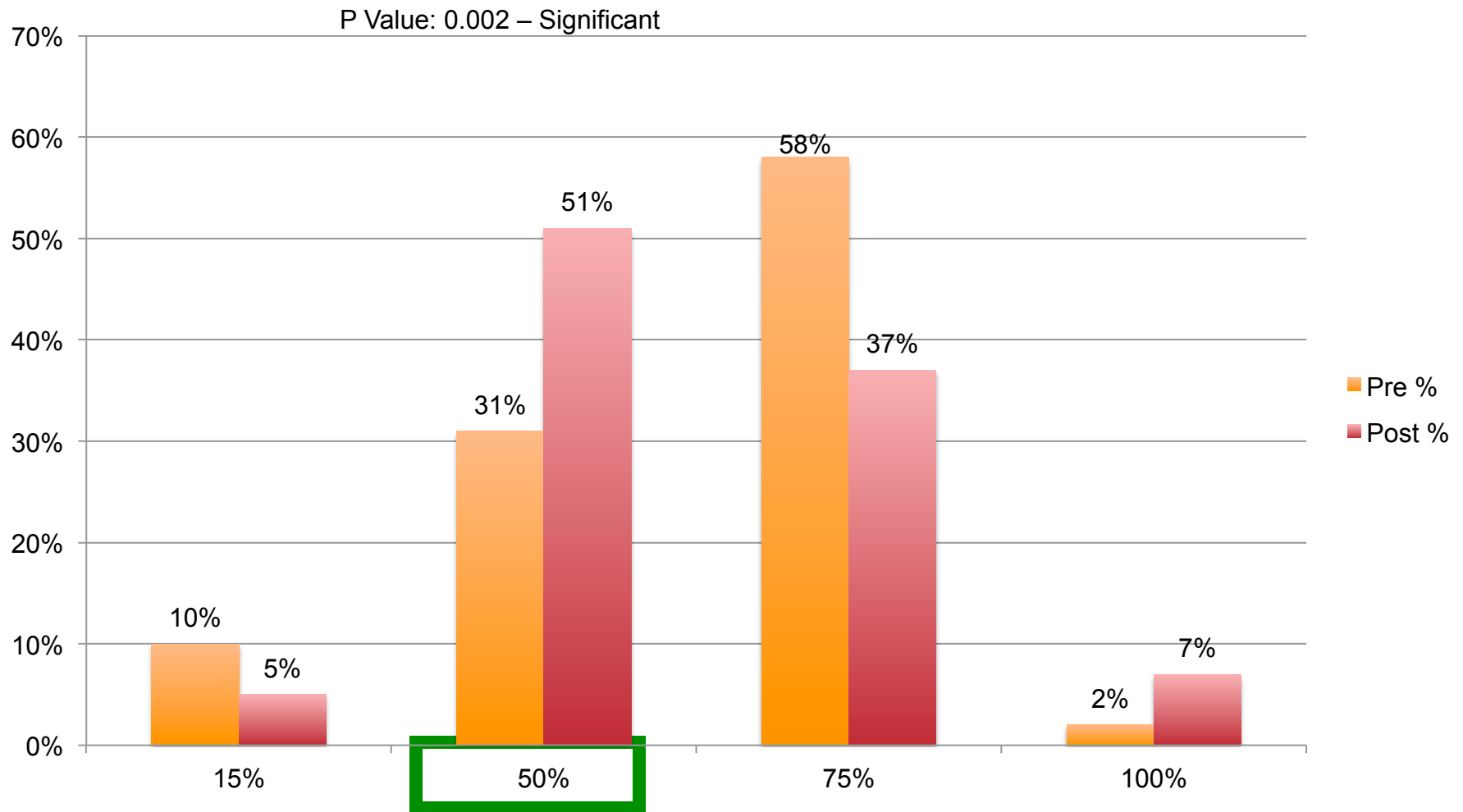
Diagnosis and Treatment Strategies for DVT and PE-Where are we now?

Knowledge/Competence	Learners demonstrated improvement from pre to post-testing in their answers to all four of the case-based questions, three of which achieved statistical significance.
Confidence	Moderate to very confident levels regarding the diagnosis and/or management of DVT and PE rose from 24% to 47% as a result of this program.
Intent to Perform	As a result of this program, 89% of learners state they are likely to implement the strategies for evaluation and management of DVT and PE taught in this program.
Change of Practice Behavior	98% of learners who responded to our four week survey indicated that they had changed their practice behavior based on this program

N=52

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

The risk reduction provided by anticoagulant prophylaxis for venous thromboembolism (VTE) in high risk medical patients is approximately:
(Learning Objective 1)



Pre N = 111 Post N = 112

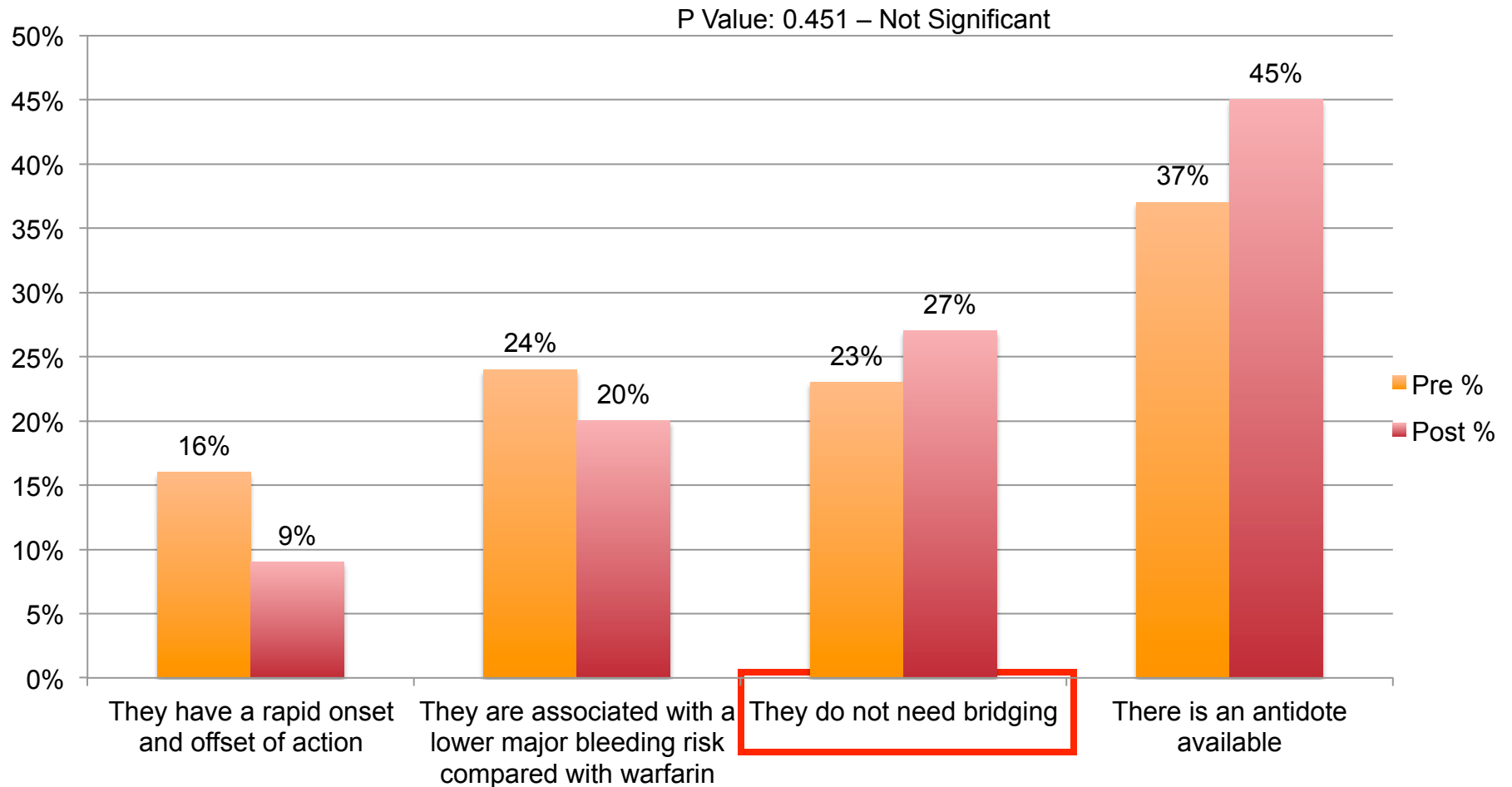
Green highlight indicates significant difference between pre and post testing.

Case Vignette Knowledge and Competence Assessment Questions

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

Which of the following regarding the direct oral anticoagulants (factor Xa, thrombin inhibitors) is not true?

(Learning Objective 2)



Pre N =115

Post N = 123

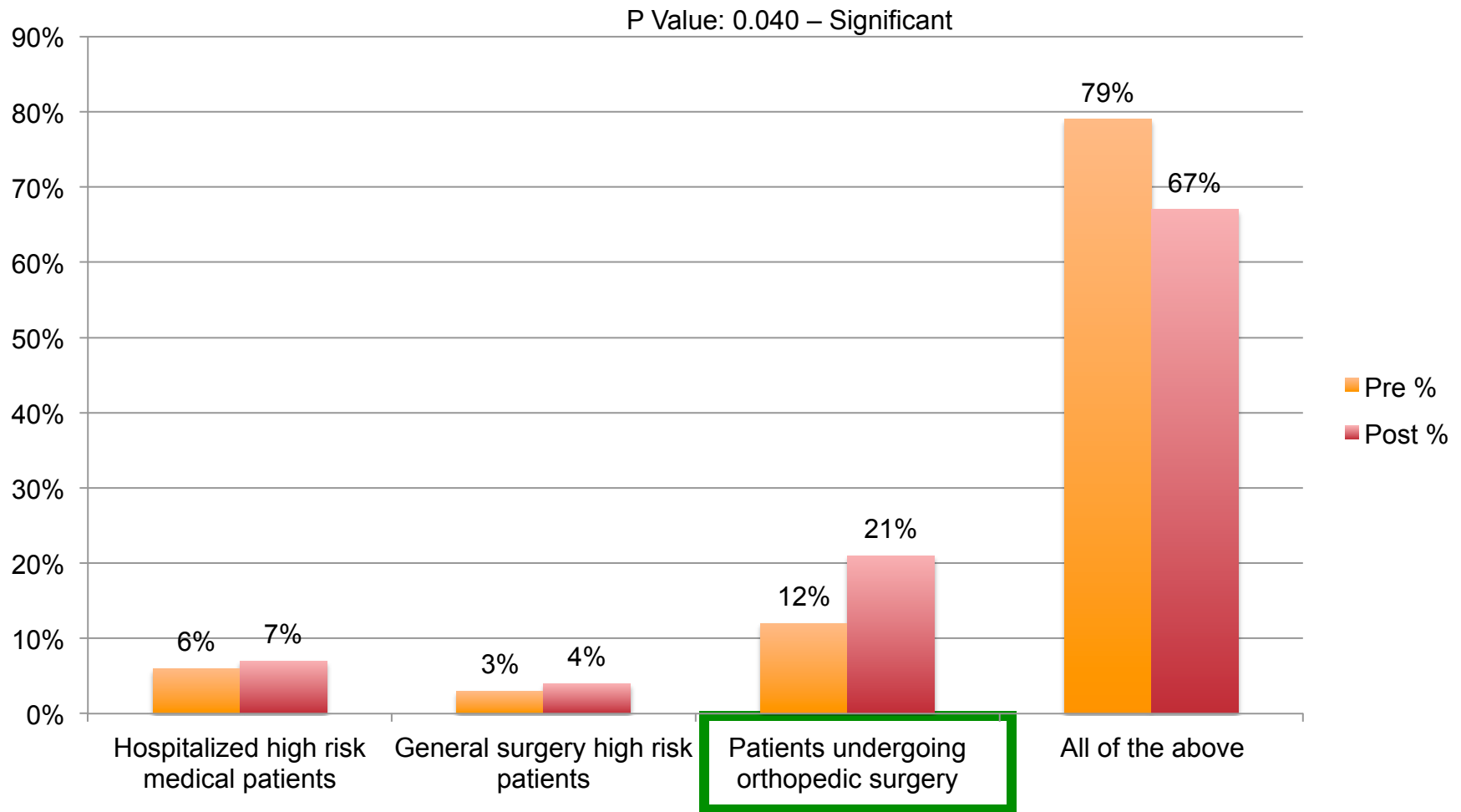
Red highlight indicates no significant difference between pre and post testing.

Case Vignette Knowledge and Competence Assessment Questions

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

The direct oral anticoagulants (factor Xa, thrombin inhibitors) can be used for VTE prophylaxis in which of the following patients?

(Learning Objective 3)



Pre N =127 Post N = 121

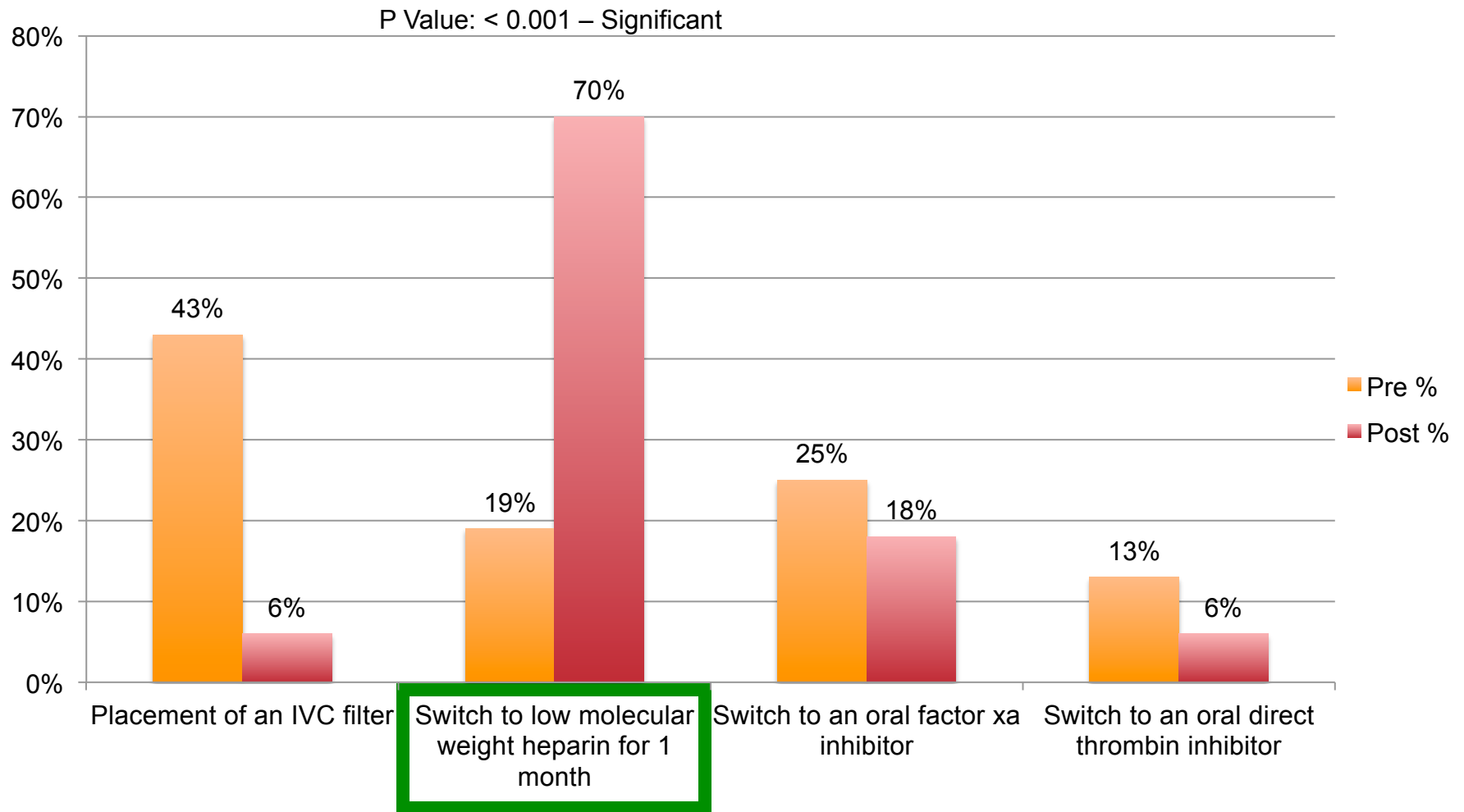
Green highlight indicates significant difference between pre and post testing.

Case Vignette Knowledge and Competence Assessment Questions

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

The recommended option for the management of VTE while on therapeutic anticoagulation with warfarin is:

(Learning Objective 4)



Pre N =118

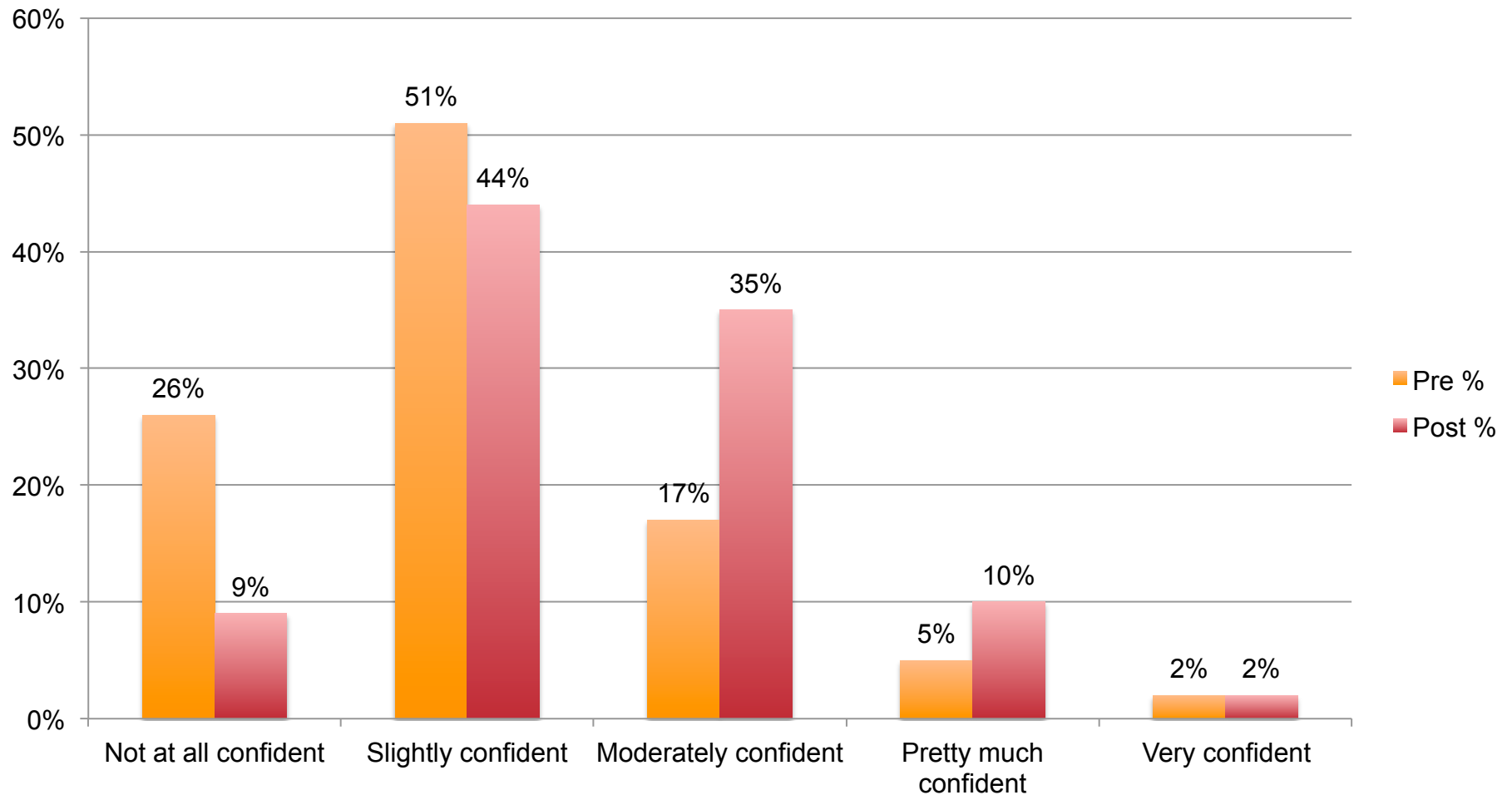
Post N = 125

Green highlight indicates significant difference between pre and post testing.

Changes in Confidence from Pre to Post-Testing

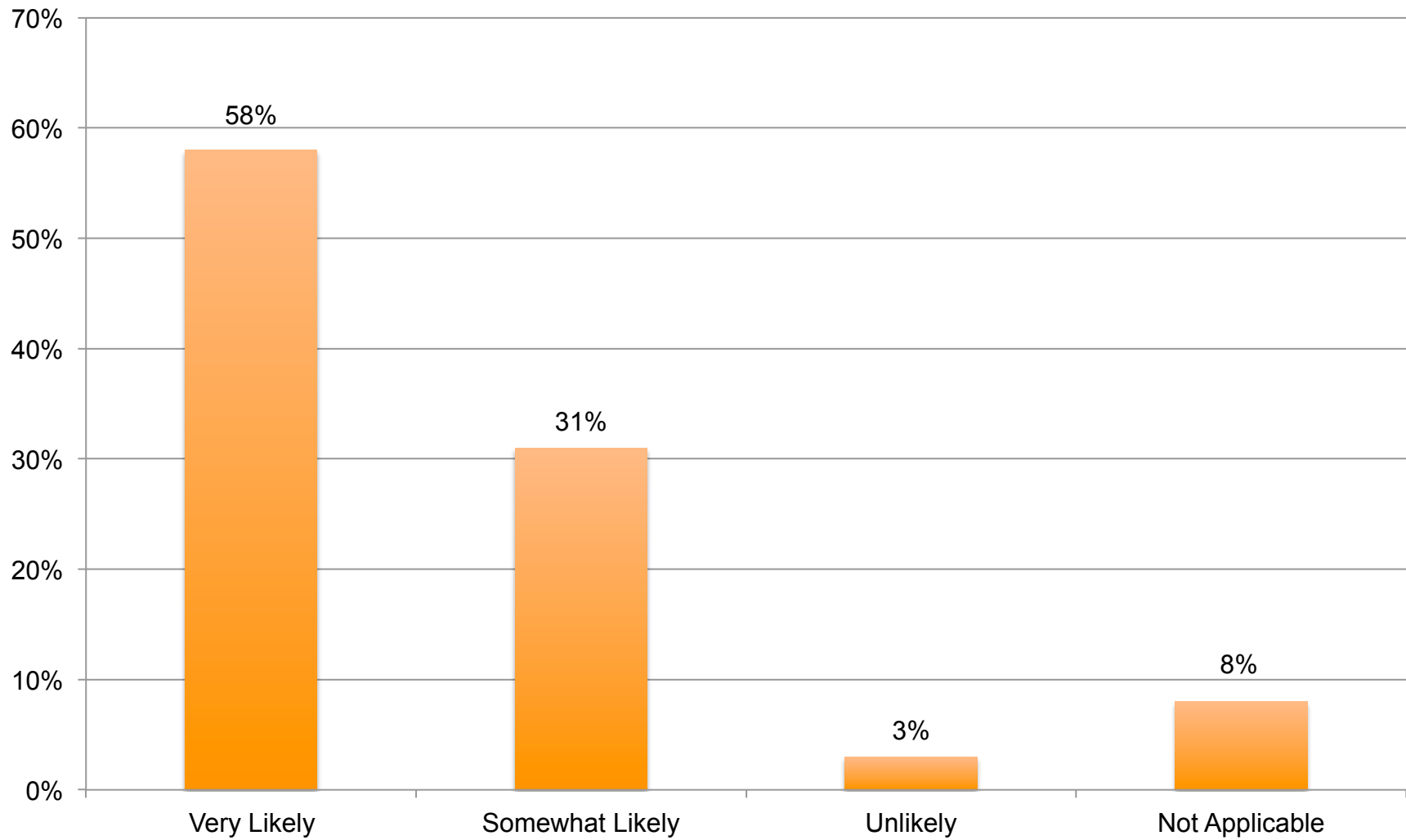
Diagnosis and Treatment Strategies for DVT and PE-Where are we now?

On a scale of 1 to 5, please rate how confident you would be in your ability to diagnose and manage DVT and PE:



Pre N =126 Post N = 124

How Likely Are You to Implement These Strategies in Your Practice?



N =180

Discussion and Implications

Diagnosis and Treatment Strategies for DVT and PE-Where are we now?

- 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. The results indicated improvement in knowledge as measured by positive changes in pre to post-test scores in 3 out of 4 questions asked, three of which achieved statistical significance.
- Intention to Change: 89% indicated that they are very likely or somewhat likely to implement elements of lessons learned at the symposium.
- Confidence: Participants indicated a robust increase in self-reported confidence in treating patients with DVT/PE. Moderate to very confident levels rose from 24% to 47%.
- Summary: Eighty nine percent of the attendees suggested they were likely to change their practice patterns as a result of this program. This activity was successful in the goal of improving understanding about evaluating patients suspected of DVT/PE and managing their disease. The activity had a positive impact in terms of self-reported improvement in confidence and the likelihood of practice change. Future programming should continue to educate clinicians on current guidelines as well as choice of effective, therapies for DVT/PE.