Clinical Updates for Nurse Practitioners and Physician Assistants: 2016

NACE NATIONAL ASSOCIATION FOR CONTINUING EDUCATION

Atrial Fibrillation: Reducing Risk and Individualizing Therapeutic Choices

Grant # ME201621155

Final Outcome Report for 6 Cities

Report Date: December 8, 2016

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Course Accreditation

The Association of Black Cardiologists, Inc. is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The Association of Black Cardiologists, Inc. 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.

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 6 *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 7 contact hours of continuing education (which includes 3.25 pharmacology hours).

AAPA accepts certificates of participation for educational activities certified for *AMA PRA Category 1 Credit*™ from organizations accredited by ACCME or a recognized state medical society. PAs may receive a maximum of 7 Category 1 credits for completing this activity.*

* This applies to the full day CME activity entitled Clinical Updates for Nurse Practitioners and Physician Assistants.

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Commercial Support

The Clinical Updates for Nurse Practitioners and Physician Assistants 2016 series of CME activities were supported through educational grants or donations from the following companies:

Allergan
Boehringer Ingelheim Pharmaceuticals, Inc.
BioReference, An OPKO Company
Gilead
Grifols
Novartis
Prometheus
Sanofi US

Atrial Fibrillation: Reducing Risk and Individualizing Therapeutic Choices an independent educational grant from Boehringer Ingelheim Pharmaceuticals, Inc.

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Cities and Dates

Clinical Updates for Nurse Practitioners and Physician Assistants Update 2016
Conference Schedule

September 17, 2016
Orlando, FL

September 24, 2016
Cincinnati, OH

October 1, 2016
Pittsburgh, PA

October 8, 2016
Fairfax, VA

October 15, 2016*
Dallas, TX

October 22, 2016
Phoenix, AZ

October 29, 2016
Charlotte, NC

November 5, 2016*
Columbia, SC

November 12, 2016
White Plains, NY

November 19, 2016
Seattle, WA

***Simulcast and Live Conference**
** **Bolded** cities are where the lecture was given

Enduring Monograph Expected Launch Date – February 1, 2017

Titles of Presentations

Prostate Cancer Screening in the Primary Care Setting:
Understanding the Role of Bio-Markers

Atrial Fibrillation:
Reducing Risk and Individualizing Therapeutic Choices

Screening, Counseling, and Linkage to Care Education in Hepatitis B
(SCALE HBV)

Clinical Challenges in Individualized Heart Failure Treatment

Postprandial Hyperglycemia and GLP-1 Receptor Agonists:
Effective Strategies to Achieve Goals

The Inflammatory State of Psoriasis: New and Emerging Therapies

Avoiding the Pitfalls in IBD Care:
Diagnostic and Management Strategies to Improve Outcomes

Chronic Obstructive Pulmonary Disease (COPD) and Alpha-1 Antitrypsin Deficiency (AATD):
Bridging the Gaps in Diagnosis and Treatment

Idiopathic Pulmonary Fibrosis:
Making Sense of Diagnostic and Therapeutic Options in Primary Care

Optimizing Disease Management: IBS and Chronic Idiopathic Constipation

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 1: Participation

- 1014 attendees in 6 cities (789 On Site, 225 Remote Simulcast)
- 88% NPs or PAs; 4% Physicians; 6% RNs; 2% Other
- 48% in community-based practice
- 59% PCPs, 7% Cardiologist; 6% Pulmonology; 28% Other or did not respond
- 94% provide direct patient care

Did we reach the right audience? Yes!

Participation by Location

	MDs/DOs	NPs	PAs	RNs	Other	TOTAL
Orlando, FL September 17, 2016	2	157	16	5	5	185
Pittsburgh, PA October 1, 2016	3	64	13	1	1	82
Dallas, TX* October 15, 2016	24	230	44	26	15	339
Phoenix, AZ October 22, 2016	2	117	12	4	7	142
Charlotte, NC October 29, 2016	2	80	16	1	2	101
Columbia, SC* November 5, 2016	10	120	27	4	4	165

***Simulcast and Live Conference**

Level 2: Satisfaction

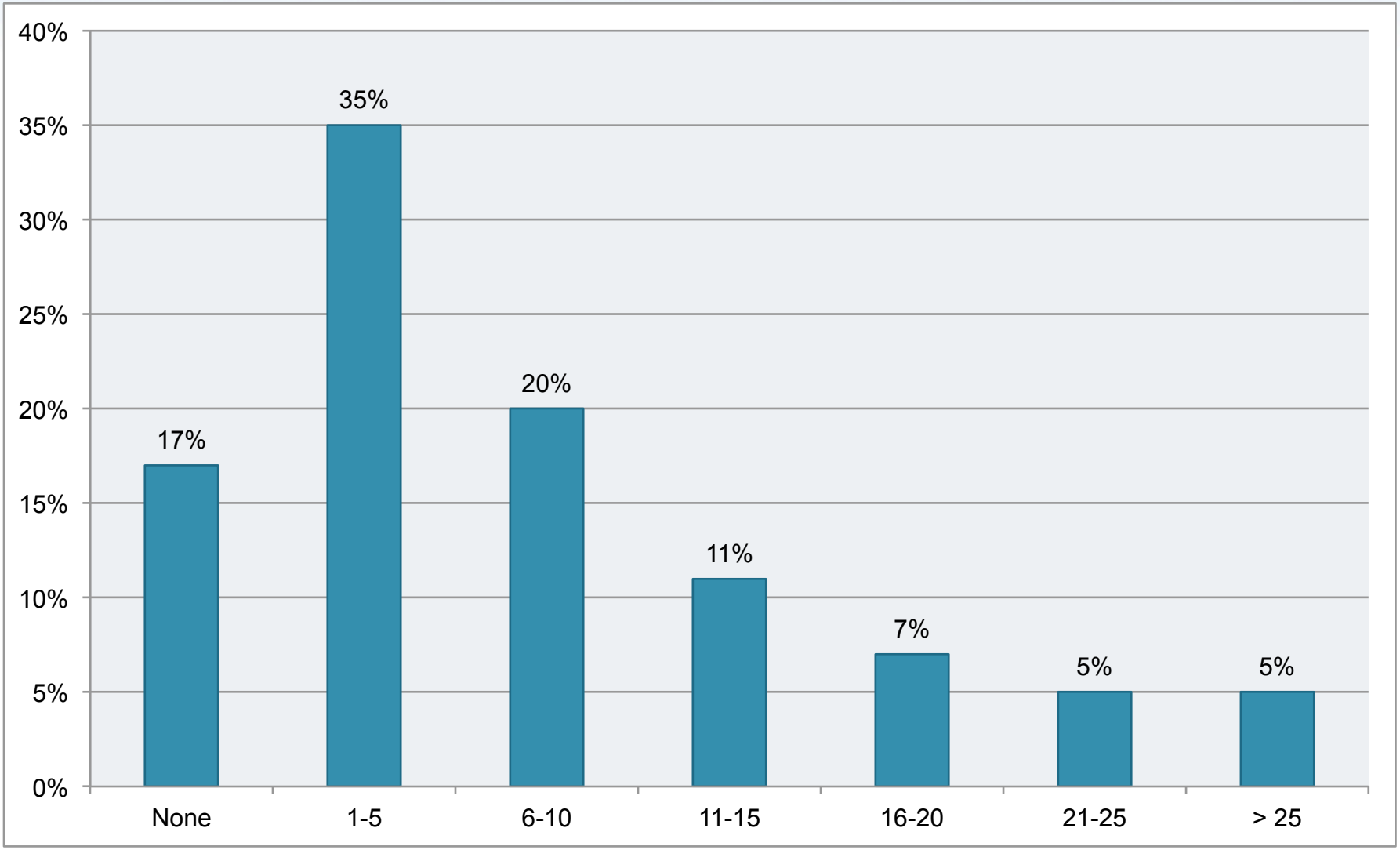
- 99% rated the activity as excellent
- 99% indicated the activity improved their knowledge
- 98% stated that they learned new and useful strategies for patient care
- 99% said they would implement new strategies that they learned in their practice
- 100% said the program was fair-balanced and unbiased

Sample Size: N = approximately 1014

Were our learners satisfied? Yes! Data was collected across six cities for the Clinical Updates for Nurse Practitioners and Physician Assistants program.

Atrial Fibrillation:
Reducing Risk and Individualizing Therapeutic Choices

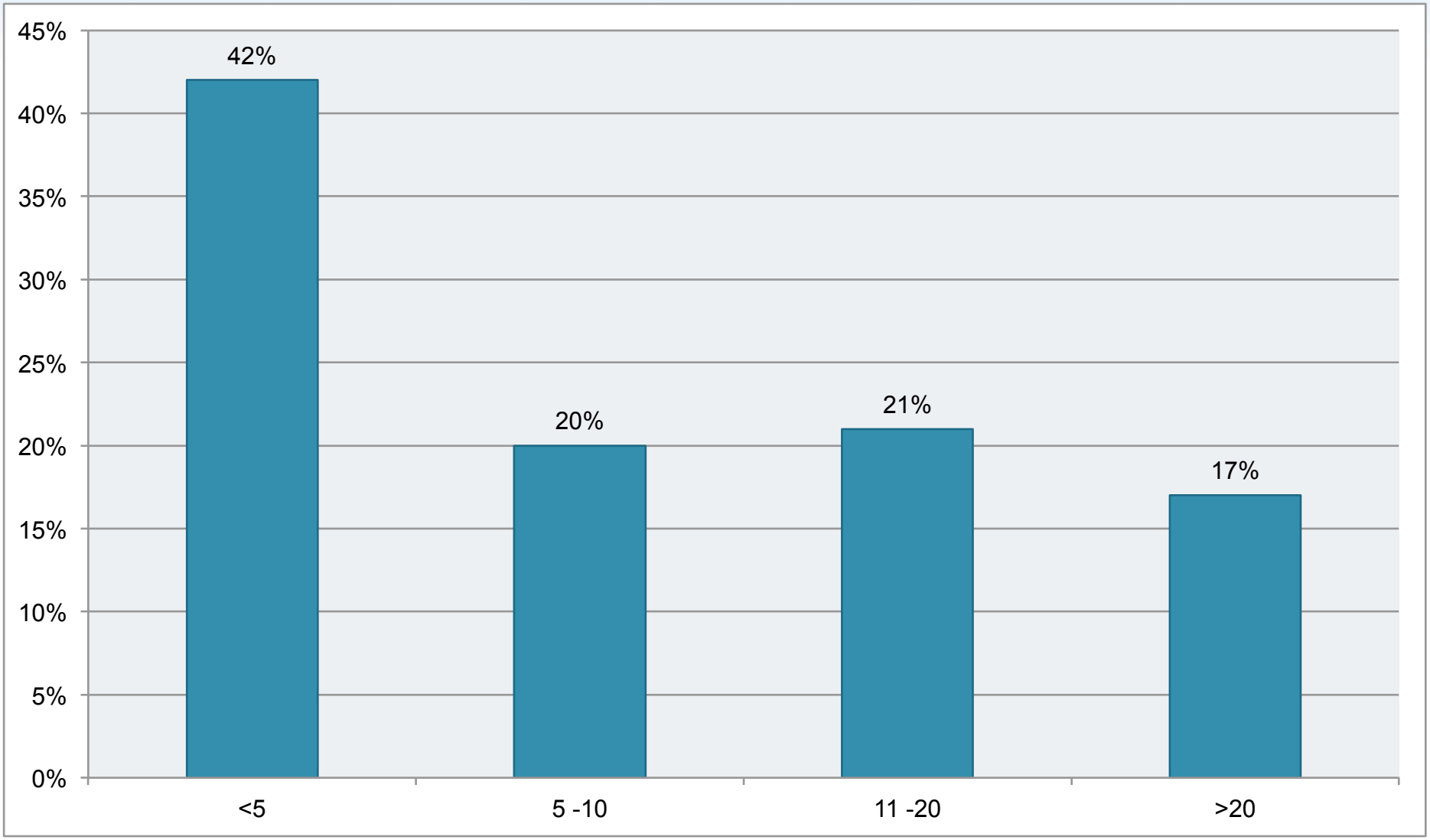
Patients seen each week in a clinical setting with atrial fibrillation:



Sample Size: N = approximately 1014

Atrial Fibrillation:
Reducing Risk and Individualizing Therapeutic Choices

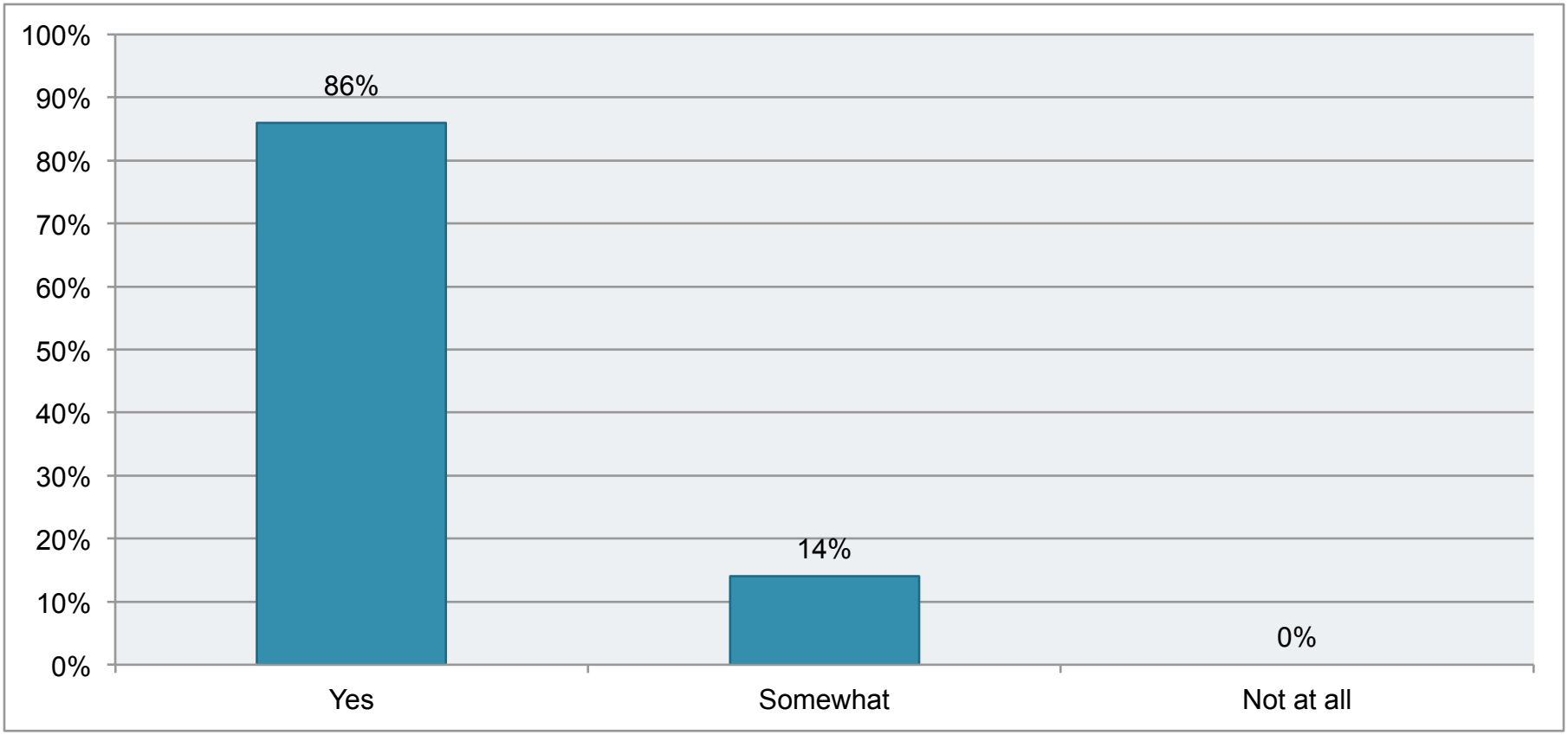
Clinicians number of years in practice:



N = 368

Did Learners Say They Achieved Learning Objective?

Upon completion of this activity, I can now –Identify those patients at risk for cardioembolic stroke who are appropriate candidates for anticoagulation; Recognize common misperceptions about anticoagulation risk to improve communication and patient adherence; Discuss the management of bleeding in patients on anticoagulants; Describe the role of continued anticoagulation in the setting of emerging non-pharmacologic therapy:



Yes! 100% believed they did. Data was collected in 6 cities.

Sample Size: N = approximately 1014

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 and what barriers they encountered.

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.

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Atrial Fibrillation:
Reducing Risk and Individualizing Therapeutic Choices

Faculty

John M. Fontaine, MD, MBA FACC, FHRS
Anekwe Onwuanyi, MD
Daniel Thibodeau, MHP, PA-C, DFAAPA
Marcus Wharton, MD

Learning Objectives

1. Identify those patients at risk for cardioembolic stroke who are appropriate candidates for anticoagulation.

2. Recognize common misperceptions about anticoagulation risk to improve communication and patient adherence.

3. Discuss the management of bleeding in patients on anticoagulants.

4. Describe the role of continued anticoagulation in the setting of emerging non-pharmacologic therapy.

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Key Findings

Atrial Fibrillation:
Reducing Risk and Individualizing Therapeutic Choices

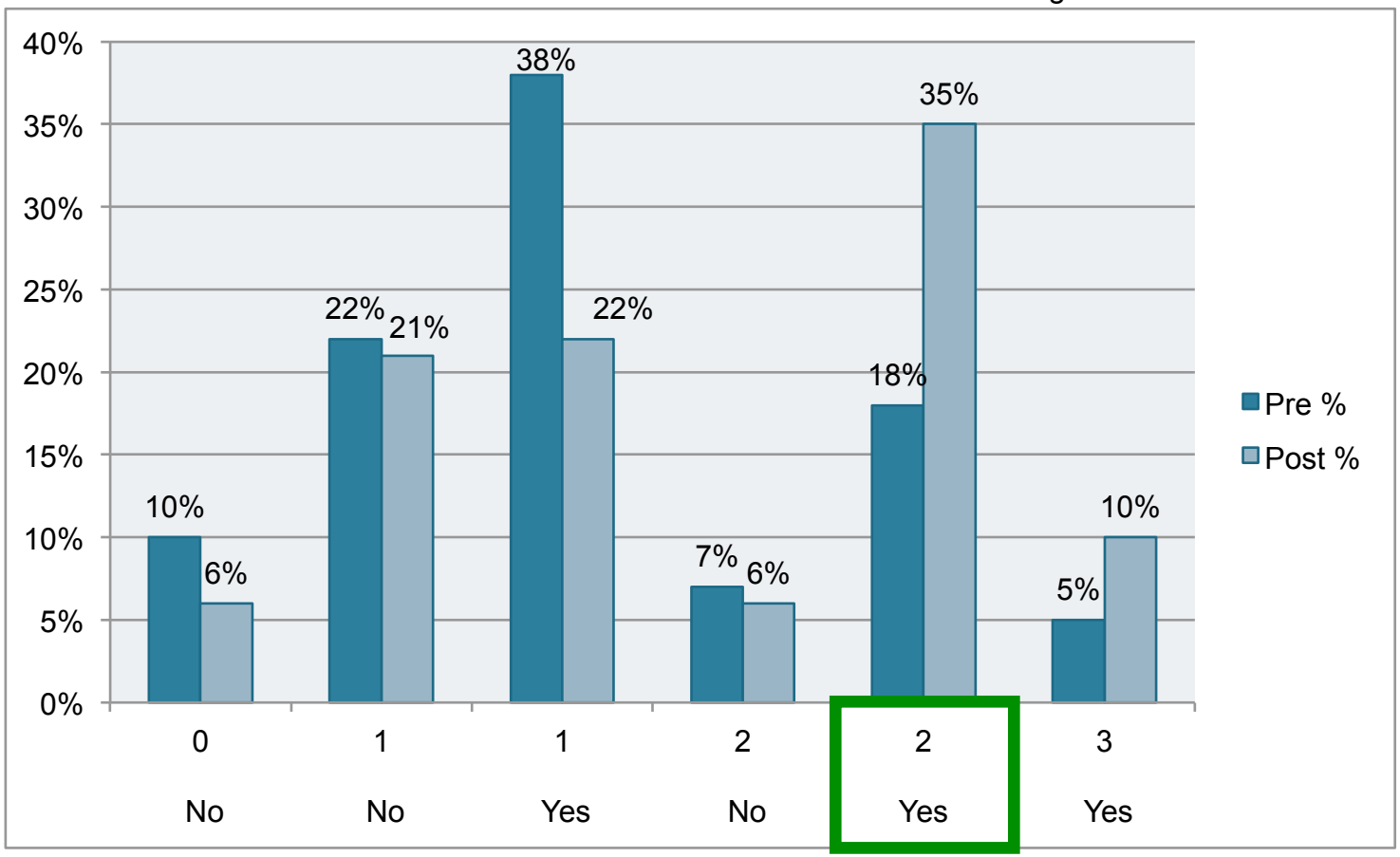
Knowledge/Competence	Learners demonstrated improvement from pre to post-testing in their answers to *four* out of *four* of the case-based questions assess stroke risk and manage anticoagulation in patients with atrial fibrillation
Confidence	Whereas the majority of learners rated themselves as having very low confidence in their understanding of treating patients with diabetes 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, 22% participate in the assessment and management of patients with atrial fibrillation, before are considering doing so, while 49% who do, indicated that they will change their treatment methods.
Change of Practice Behavior 4 Weeks Post N= 34	85% 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 67 yo woman with lone AF and no other medical problems.
What is the CHA2DS2-VASc score and should oral anticoagulant be prescribed?
CHA2DS2-VASc Score Anticoagulate? (Learning Objective 1)

P Value: <0.001 – Significant



Pre N = 410 Post N = 421

Green highlight indicates significant difference between pre and post testing.

Case Vignette Knowledge and Competence Assessment Questions

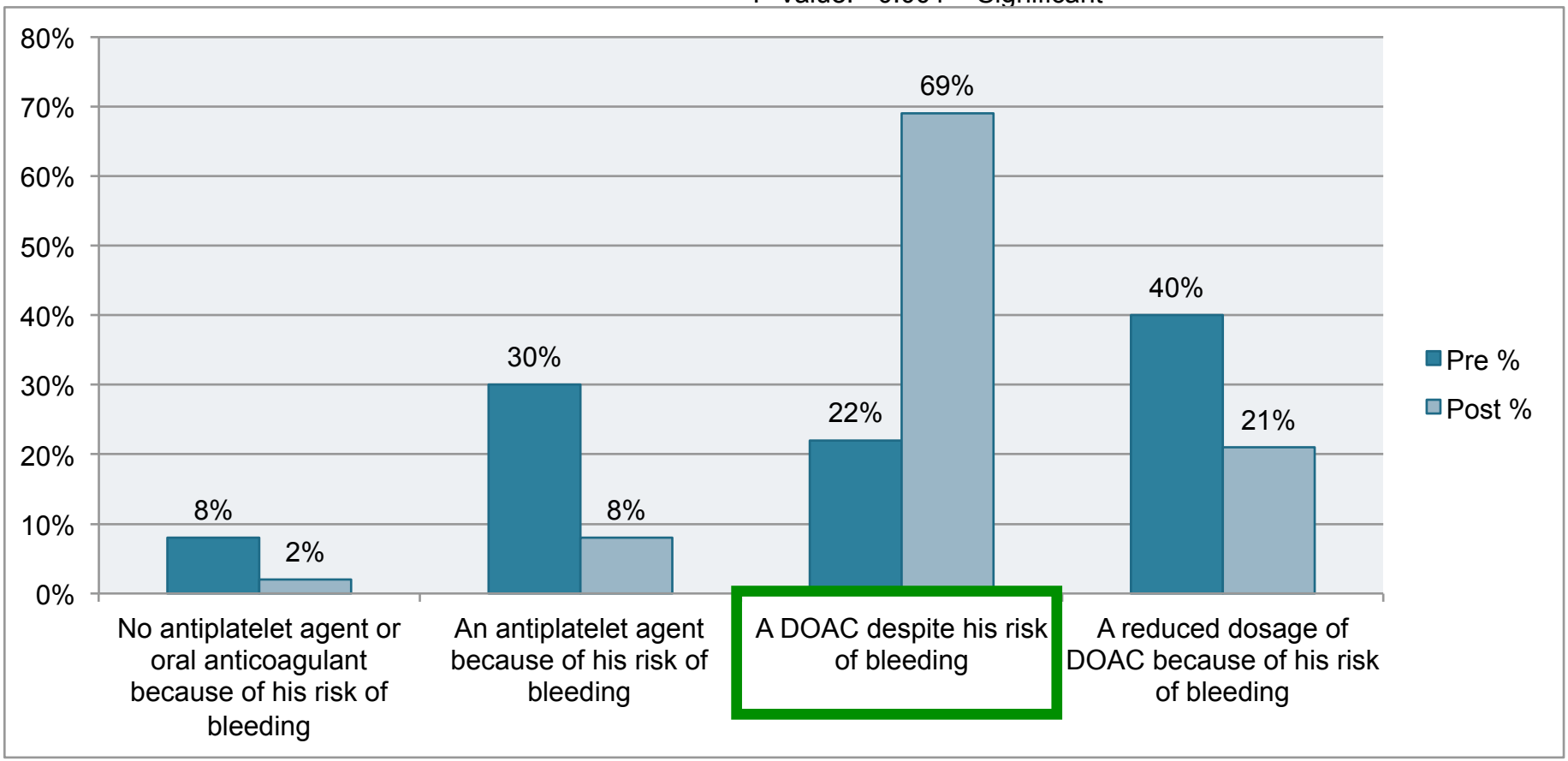
(presented before and after lecture—boxed answer is correct)

75 yo man with persistent AF, history of CHF, CAD, HTN, CRI, and PVD.

- Treated with warfarin but INR's difficult to keep in the therapeutic range.
- HAS-BLED score 4, which = 8-10% annualized risk for major bleeding.

Would you treat this patient with: (Learning Objective 2, 3)

P Value: <0.001 – Significant



Pre N = 432 Post N = 436

Green highlight indicates significant difference between pre and post testing.

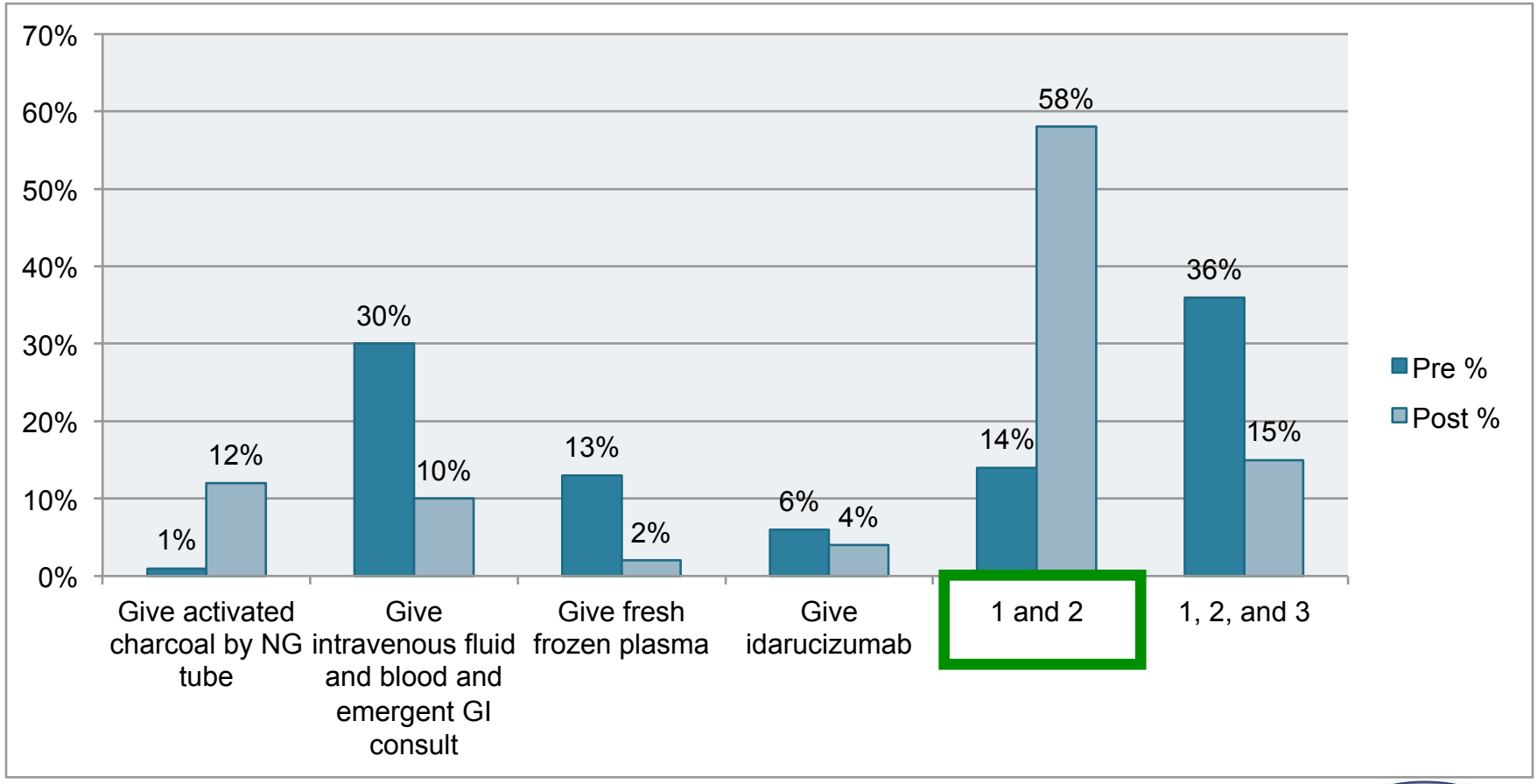
Case Vignette Knowledge and Competence Assessment Questions

(presented before and after lecture—boxed answer is correct)

62 yo woman with paroxysmal AF, HTN, DM, and long history of GERD, on rivaroxaban. Presents to ER with repeated hematemesis of bright red blood, hypotension, and Hgb 6.1 gm/dl. Last dose of rivaroxaban 1 hour earlier.

Which of the following would be appropriate to treat her bleeding? (Learning Objective 3)

P Value: <0.001 – Significant



Pre N = 444 Post N = 471

Green highlight indicates significant difference between pre and post testing.

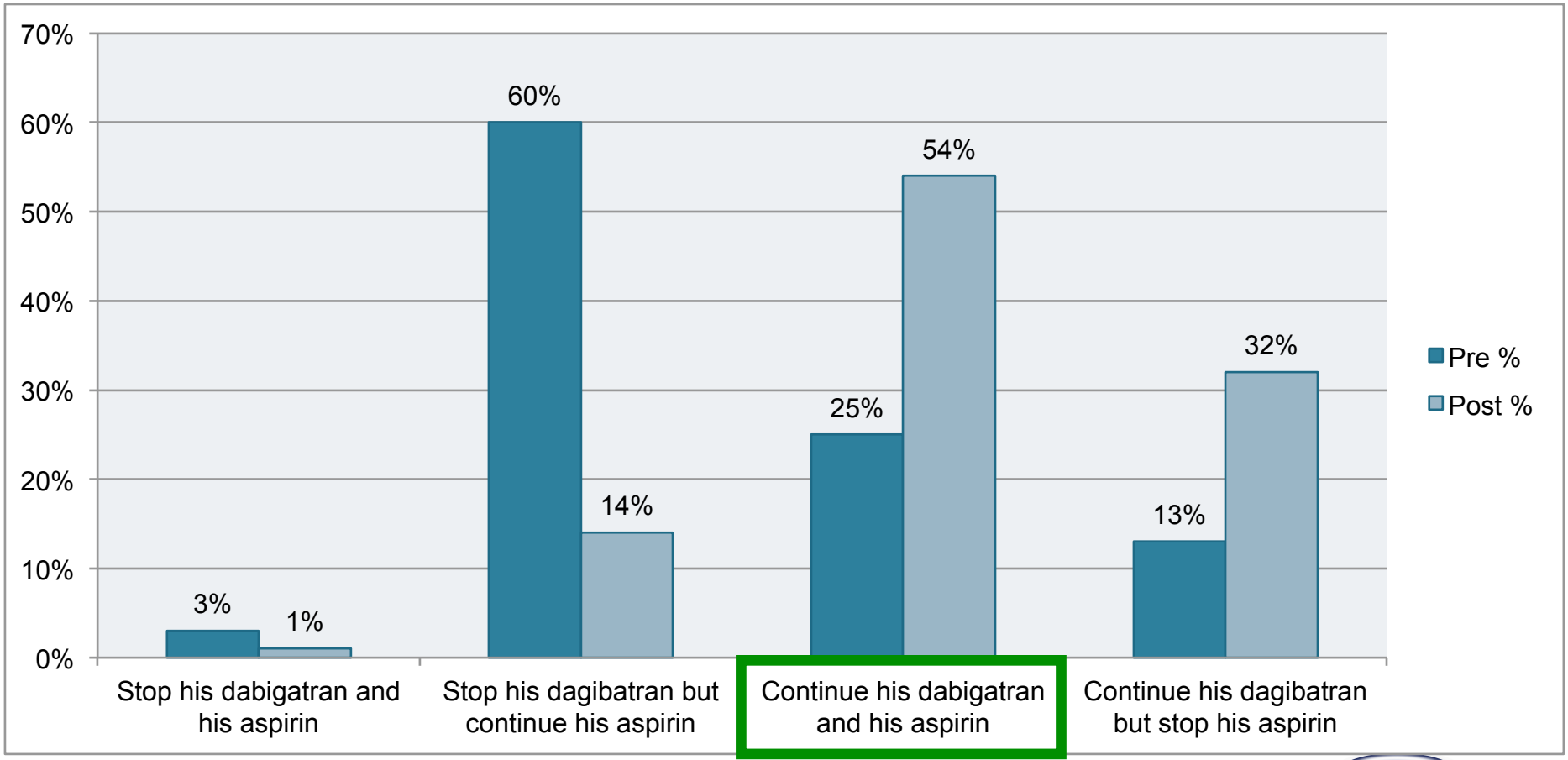
Case Vignette Knowledge and Competence Assessment Questions

(presented before and after lecture—boxed answer is correct)

78 yo man with persistent AF undergoes successful ablation of AF and atrial flutter. Anticoagulated with dabigatran and takes aspirin for CAD without bleeding complications. History of prior MI, mild compensated CHF, HTN, and PVD. One month of loop monitoring 4 months after his ablation was normal.

What would you do with his oral anticoagulation: (Learning Objectives 4)

P Value: <0.001 – Significant

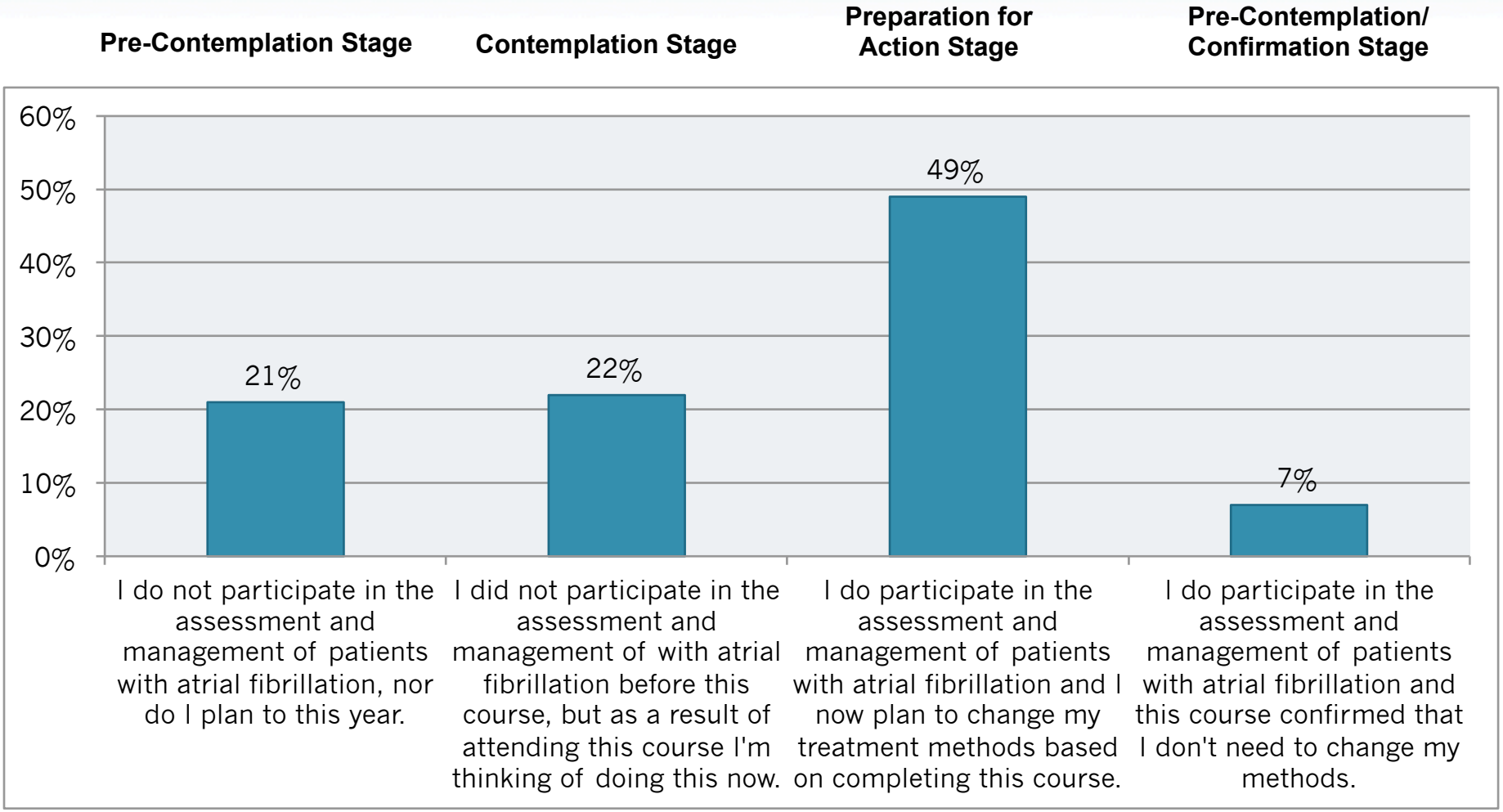


Pre N = 440 Post N = 449

Green highlight indicates significant difference between pre and post testing.

Change in Practice Behavior Question
(presented after the lecture)

Which of the statements below describes your approach to the stroke risk assessment and management of anticoagulation in patients with atrial fibrillation?

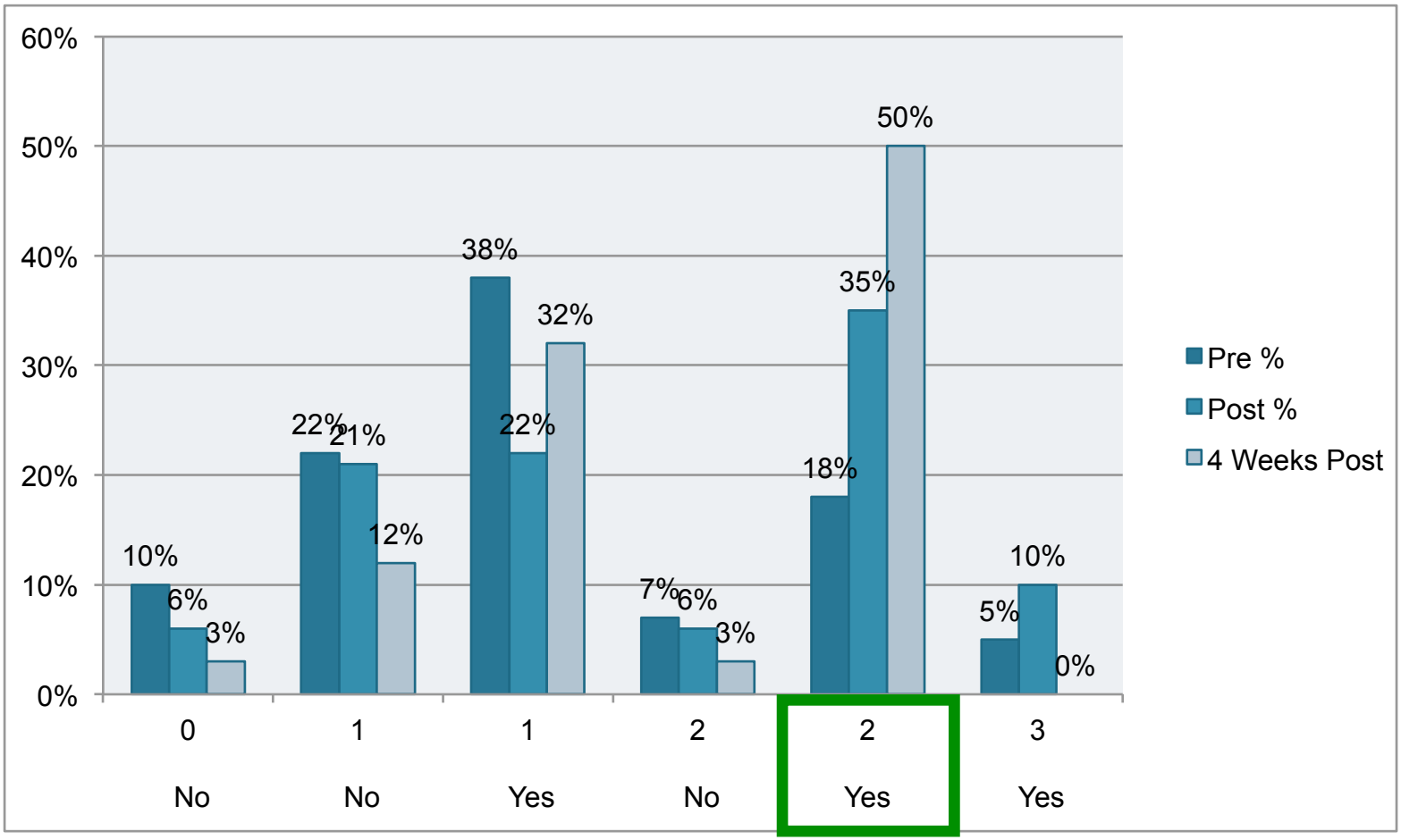


N= 192

Four Week Case Study Questions

(boxed answer is correct)

A 67 yo woman with lone AF and no other medical problems.
What is the CHA2DS2-VASc score and should oral anticoagulant be prescribed?
CHA2DS2-VASc Score Anticoagulate? (Learning Objective 1)



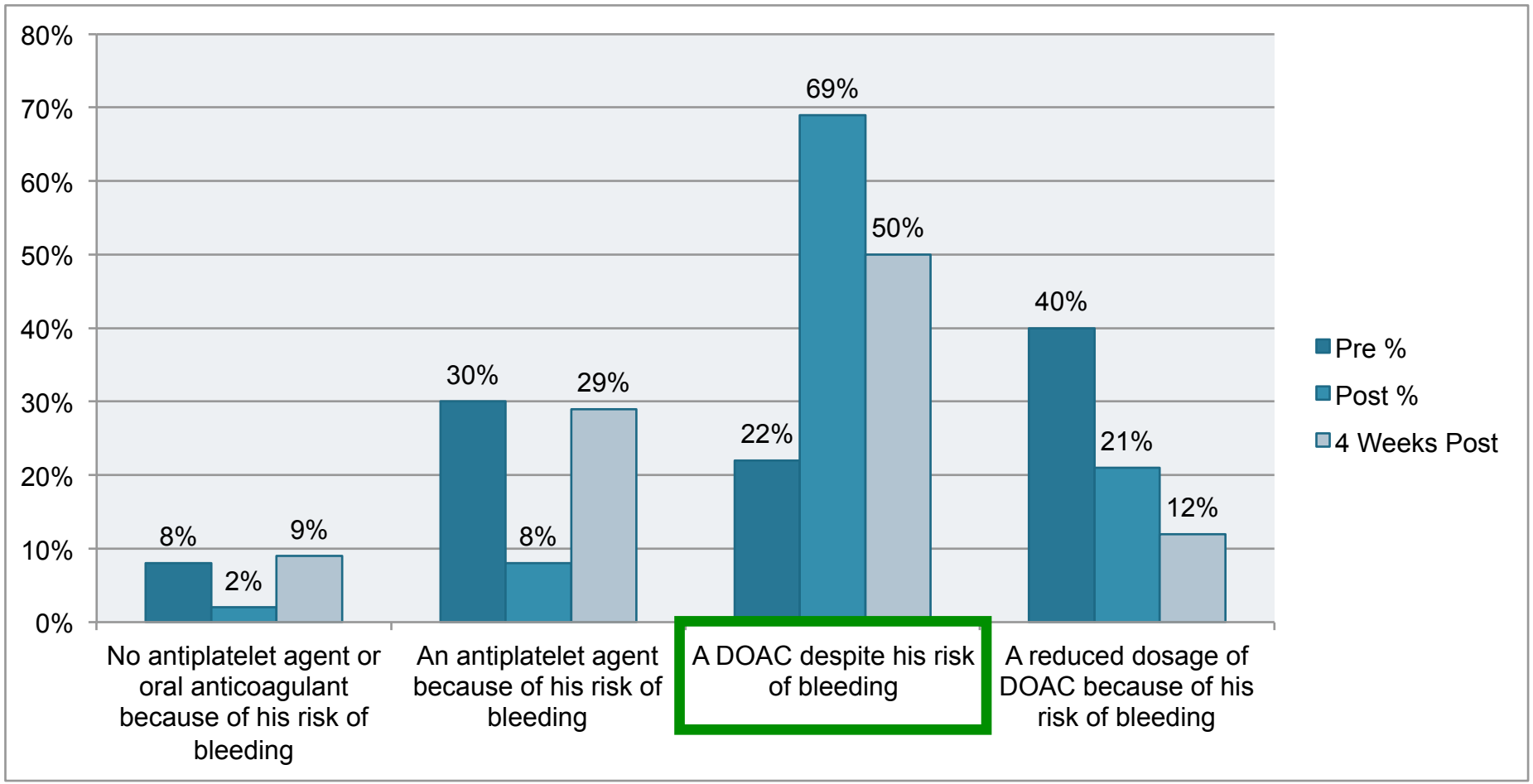
Pre N = 410 Post N = 421 4 Weeks Post N = 34 Green highlight indicates significant difference between pre and post testing.

Four Week Case Study Questions
(boxed answer is correct)

75 yo man with persistent AF, history of CHF, CAD, HTN, CRI, and PVD.

- Treated with warfarin but INR's difficult to keep in the therapeutic range.
- HAS-BLED score 4, which = 8-10% annualized risk for major bleeding.

Would you treat this patient with: (Learning Objective 2, 3)



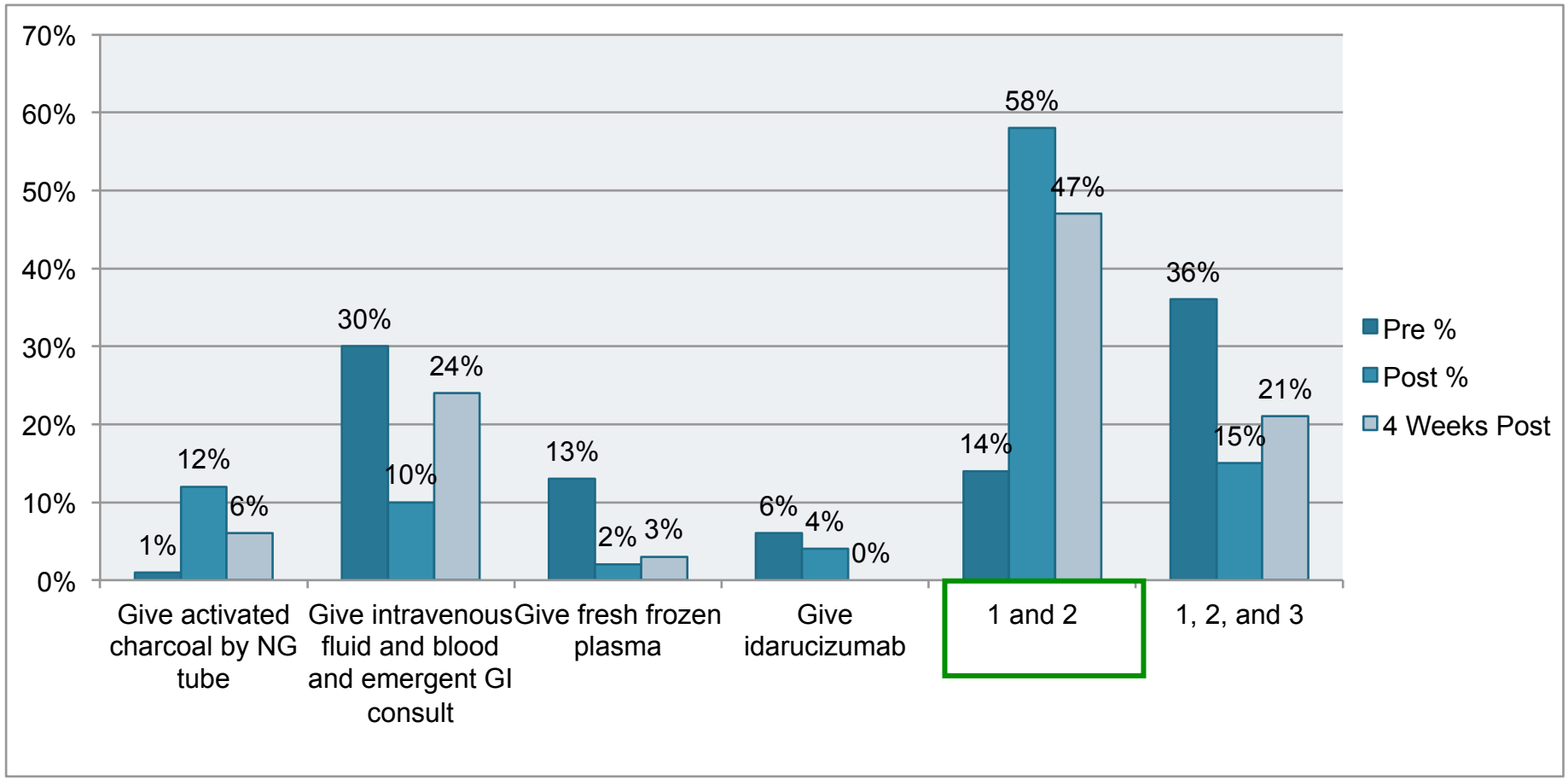
Pre N = 432 Post N = 436 4 Weeks Post N = 34 Green highlight indicates significant difference between pre and post testing.

Four Week Case Study Questions

(boxed answer is correct)

62 yo woman with paroxysmal AF, HTN, DM, and long history of GERD, on rivaroxaban. Presents to ER with repeated hematemesis of bright red blood, hypotension, and Hgb 6.1 gm/dl. Last dose of rivaroxaban 1 hour earlier.

Which of the following would be appropriate to treat her bleeding? (Learning Objective 3)



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Four Week Case Study Questions
(boxed answer is correct)

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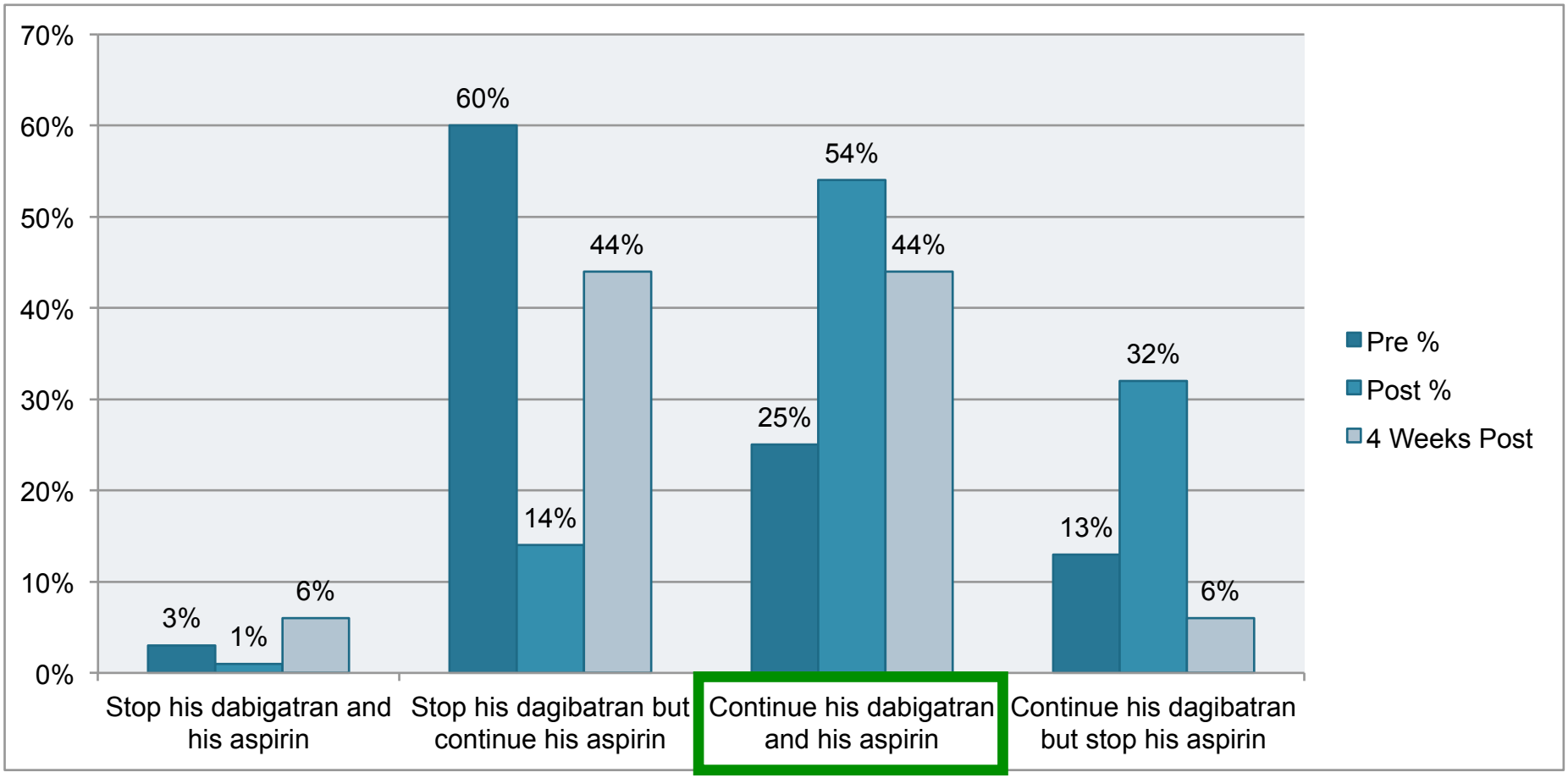
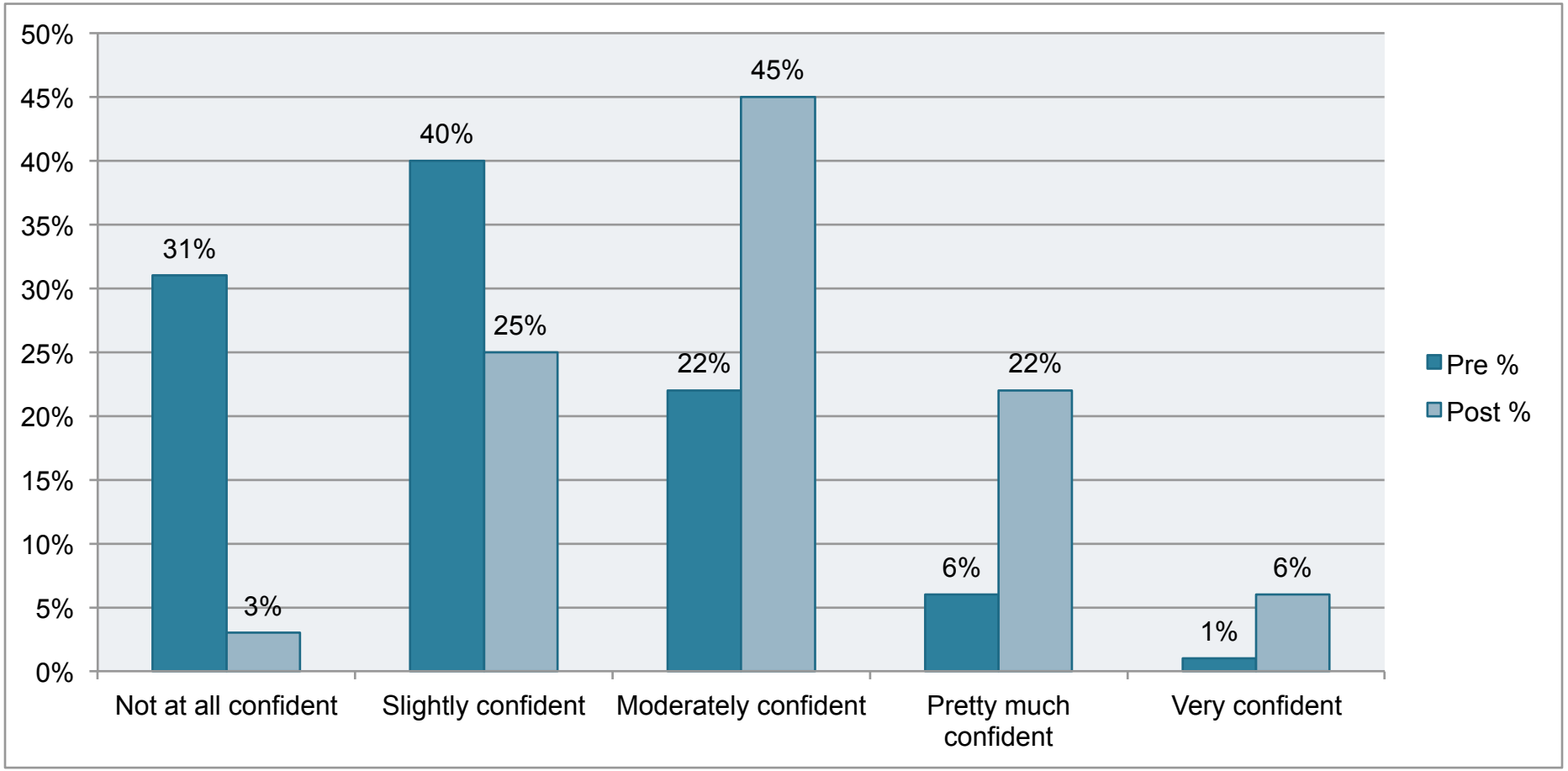
What would you do with his oral anticoagulation: (Learning Objectives 4)



Pre N = 440 Post N = 449 4 Weeks Post N = 34 Green highlight indicates significant difference between pre and post testing.

Atrial Fibrillation:
Reducing Risk and Individualizing Therapeutic Choices

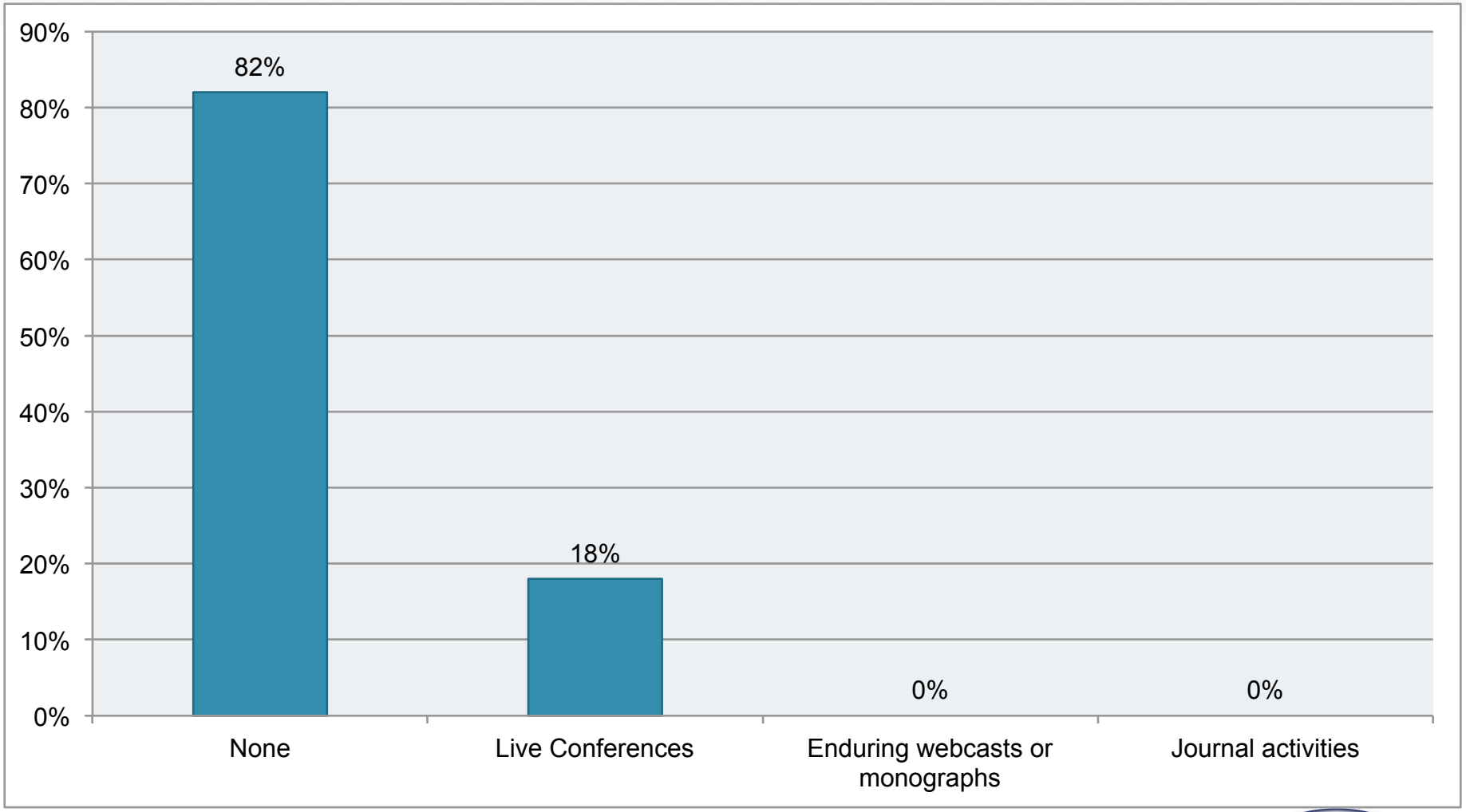
Please rate your confidence in your ability to assess stroke risk and manage anticoagulation in patients with atrial fibrillation:



Pre N = 436 Post N = 419

Atrial Fibrillation:
Reducing Risk and Individualizing Therapeutic Choices

Describe/list any other educational activities that you attended in the last month concerning the treatment of atrial fibrillation?



4 Weeks Post N= 34

Atrial Fibrillation:
Reducing Risk and Individualizing Therapeutic Choices

What specific skills or practice behaviors have you implemented for patients with atrial fibrillation since this CME activity?
(Comments received from attendees at 4 week follow up)

- Better risk assessment
- More confident when to bridge or hold for procedures
- Better able to understand and use CHA2DS2-VASc Score in practice
- Understanding CHA2DS2-VASc and using in practice
- Continuation of anticoagulation following AV ablation based on CHA2DS2-VASc risk score
- Increased understanding of anticoagulants
- Working on CHA2DS2-VASc score
- Feel more comfortable using newer medications
- More confident in assessment
- Assessing a patients need for one of these medications
- More comfortable with overall A-fib management

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Atrial Fibrillation:
Reducing Risk and Individualizing Therapeutic Choices

What specific barriers have you encountered that may have prevented you from successfully implementing strategies for patients with atrial fibrillation since this CME activity? (Comments received from attendees at 4 week follow up)

- Patient reluctance for anticoagulation
- Drug formulary
- Negative drug advertising has sometimes made patients reluctant to take these these medications
- Resistance against taking medication

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Atrial Fibrillation:
Reducing Risk and Individualizing Therapeutic Choices

Data Interpretation: 1022 clinicians in 6 meetings

Are more aware of how to calculate the CHA2DS2-VASc Score and recognize criteria for initiating anticoagulation

Recognize that despite an increased bleeding risk with HAS-BLED score of 4, a DOAC remains indicated in a patient at high risk of stroke

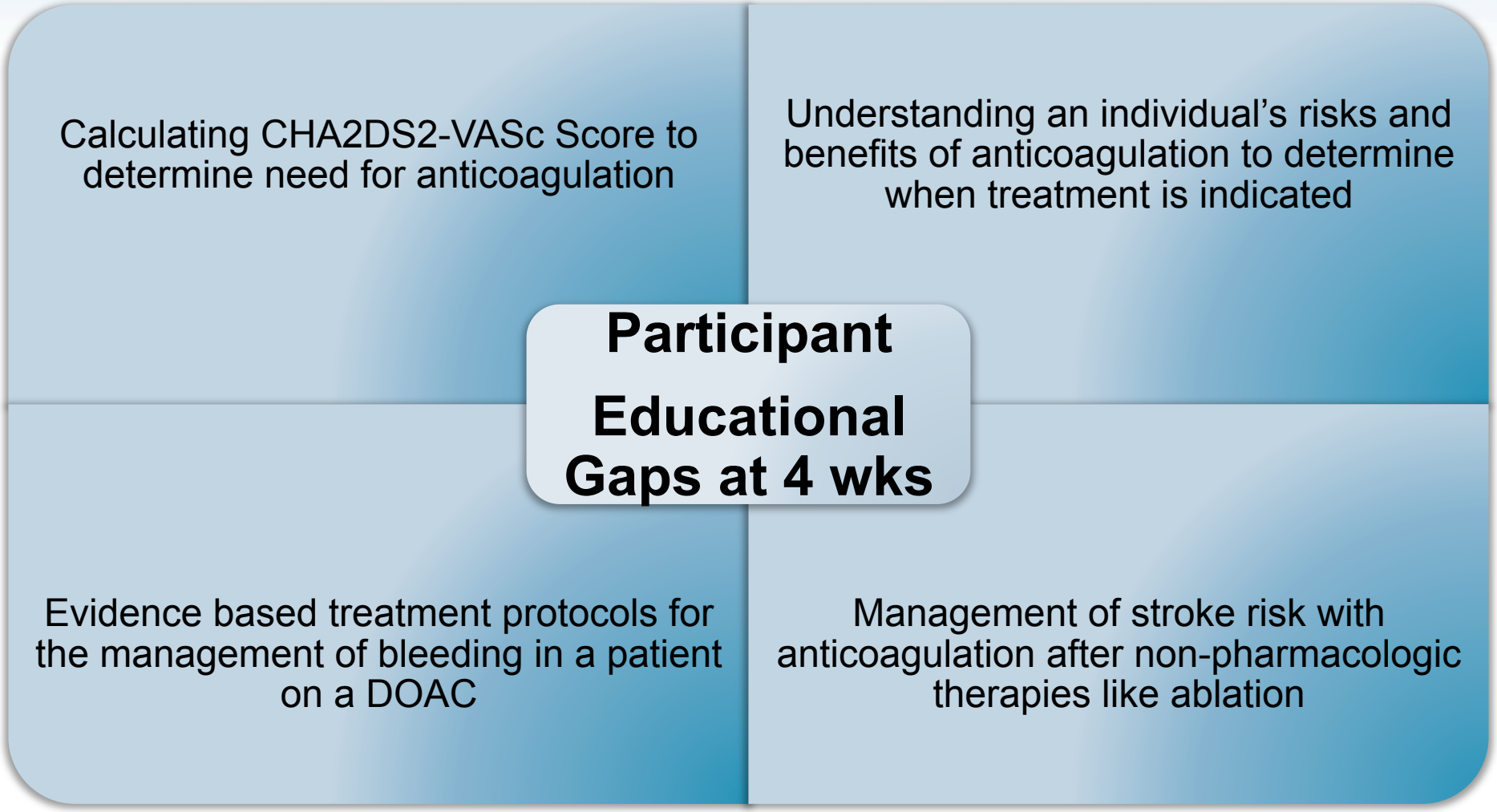
Participant Educational Gains

Will appropriately prescribe activated charcoal via NG tube, IV fluids, blood transfusion and emergent GI evaluation for a patient on rivaroxaban with an upper GI bleed and not use fresh frozen plasma or idarucizumab which is not indicated

Understand that patients should continue to receive anticoagulation for atrial fibrillation and aspirin for vascular disease even after successful ablation of the atrial fibrillation

Atrial Fibrillation:
Reducing Risk and Individualizing Therapeutic Choices

Data Interpretation: 1022 clinicians in 6 meetings



Atrial Fibrillation:
Reducing Risk and Individualizing Therapeutic Choices

New Specific Behaviors Reported at 4 weeks

- Better risk assessment
- More confident when to bridge or hold for procedures
- Better able to understand and use CHA2DS2-VASc Score in practice
- Feel more comfortable using DOACS
- Continuation of anticoagulation following AV ablation based on CHA2DS2-VASc risk score

Atrial Fibrillation:
Reducing Risk and Individualizing Therapeutic Choices

Reported Barriers to Care at 4 weeks

Patient reluctance to take medications

Formulary issues

Atrial Fibrillation:
Reducing Risk and Individualizing Therapeutic Choices

Data Interpretation: 789 clinicians in 7 meetings

82% of learners had no other exposure to CME programs on Atrial Fibrillation in the month after attending this

Significant improvement in confidence levels in ability to assess stroke risk and manage anticoagulation in patients with atrial fibrillation

KEY TAKE HOME POINTS

99% of participants are likely to utilize information learned from this presentation in their practice

48% of attendees report seeing 6 or more patients with atrial fibrillation weekly; 83% see > 1, indicating significant number of patients impacted by this program[35]

Discussion and Implications
Atrial Fibrillation
Reducing Risk and Individualizing Therapeutic Choices

The need for continued education in the area of Atrial Fibrillation, was demonstrated based on literature reviews and surveys completed prior to the conference series. Attendee knowledge was assessed at 3 points for this program: prior to the lecture, immediately following the lecture and again at 4 weeks after the conference using the case vignettes listed above.

Data Interpretation:

Data collected from 1022 clinicians after 6 meetings, indicated a statistically significant improvement in knowledge in all 4 of the questions presented. Specifically, as a result of this lecture, participants:

1. Are more aware of how to calculate the CHA2DS2-VASc Score and recognize criteria for initiating anticoagulation;
2. Recognize that despite an increased bleeding risk with HAS-BLED score of 4, a DOAC remains indicated in a patient at high risk of stroke;
3. Will appropriately prescribe activated charcoal via NG tube, IV fluids, blood transfusion and emergent GI evaluation for a patient on rivaroxaban with an upper GI bleed and not use fresh frozen plasma or idarucizumab which is not indicated;
4. Understand that patients should continue to receive anticoagulation for atrial fibrillation and aspirin for vascular disease even after successful ablation of the atrial fibrillation.

Moderate to very confident levels in the ability to assess stroke risk and manage anticoagulation in patients with atrial fibrillation rose from 29 to 73%.

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Discussion and Implications
Atrial Fibrillation
Reducing Risk and Individualizing Therapeutic Choices

Data obtained from participants 4 weeks after the program demonstrated some decline in learning from the post-test scores in 3 areas, but continued improvement from pre-test scores in the remaining area . These results suggest that nearly all of the learning objectives for this activity were effectively addressed with attendees.

Persistent gaps in knowledge were evident with additional education needed in the following areas:

1. Calculating CHA2DS2-VASc Score to determine need for anticoagulation
2. Understanding an individual's risks and benefits of anticoagulation to determine when treatment is indicated
3. Evidence based treatment protocols for the management of bleeding in a patient on a DOAC
4. Management of stroke risk with anticoagulation after non-pharmacologic therapies like ablation

99% of participants are likely to utilize information learned from this presentation in their practice. 48% of attendees report seeing 6 or more patients with atrial fibrillation on a weekly basis and 83% are seeing more than 1, suggesting a significant number of patients will be impacted by this program.

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Discussion and Implications
Atrial Fibrillation
Reducing Risk and Individualizing Therapeutic Choices

Attendees indicated multiple new, specific, practice behaviors they implemented as a result of this program that included:

1. Better risk assessment
2. More confident when to bridge or hold for procedures
3. Better able to understand and use CHA2DS2-VASc Score in practice
4. Feel more comfortable using DOACS
5. Continuation of anticoagulation following AV ablation based on CHA2DS2-VASc risk score

82% of learners had no other exposure to CME programs on Atrial Fibrillation in the month after attending this program indicating their behavior changes were likely related to this program.

Barriers to care included:

1. Patient reluctance to take medications
2. Formulary issues

The notable changes in post test scores, and intent to change practice patterns regarding stroke risk assessment and anticoagulation management in patients with atrial fibrillation, signifies a clear gap in knowledge and an unmet need among primary care clinicians. It continues to be an important area for future educational programs.

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