NATIONAL ASSOCIATION FOR CONTINUING EDUCATION

Inflammatory Bowel Disease: Focusing on the GI Tract to Maximize Results

Final Outcome Report

for One City

Emerging Challenges In Primary Care: 2015

Report Date: 1/25/2016

National Association for Continuing Education
300 NW 70th Avenue, Suite 102
Plantation, FL 33317
www.naceonline.com
(954) 723-0057

Course Director

Gregg Sherman, MD
Family Practice
Northwest Heart and Health
Margate, FL

Activity Planning Committee

Gregg Sherman, MD
Harvey C. Parker, PhD, CCMEP
Michelle Frisch, MPH, CCMEP
Alan Goodstat, LCSW
Cheryl C. Kay
Sheila Lucas, CWEP

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

The 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 7.0 contact hours of continuing education (which includes 2.25 pharmacology hours).

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 educational activity for a maximum of 2.25 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The University of Miami Leonard M. Miller School of Medicine is accredited by the Accreditation Council (ACCME)
for Continuing Medical Education to provide continuing medical education for physicians.

The University of Miami Leonard M. Miller School of Medicine designates this live activity for a maximum of 1.25 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Commercial Support

The Emerging Challenges in Primary Care: Update 2015 series of CME activities were supported through educational grants or donations from the following companies:

Abbott
AbbVie
Arbor Pharmaceuticals
Baxter
Forest Research Institute
Gilead Sciences
Grifolfs
Janssen
Lilly
Prometheus
sanofi-aventis U.S
Regeneron Pharmaceuticals
United Therapeutics
VITAS Innovative Hospice Care

Inflammatory Bowel Disease: Focusing on the GI Tract to Maximize Results is supported by an educational grant from Prometheus Laboratory Inc.

Cities and Dates

Emerging Challenges in Primary Care: Update 2015
Conference Schedule

May 2, 2015
Miami, FL

May 9, 2015
Baltimore, MD

May 16, 2015
Tampa, FL

May 30, 2015
Atlanta, GA

June 6, 2015
Birmingham, AL

June 13, 2015
Raleigh, NC

June 20 ,2015
Columbus, OH

June 27, 2015
Troy, MI

August 15, 2015
Denver, CO

August 22, 2015
St. Louis, MO

August 29, 2015
Houston, TX

September 12, 2015
Anaheim, CA

September 19, 2015
Sacramento, CA

September 26, 2015
Ft. Lauderdale, FL

October 3, 2015
San Antonio, TX

October 10, 2015
Uniondale, NY

October 17, 2015
San Diego, CA

October 24, 2015
Nashville, TN

Titles of Presentations

Inflammatory Bowel Disease: Focusing on the GI Tract to Maximize Results
Gerald W. Dryden, MD, MSPH, MSc, AGAF, FASGE

Preventing Stroke in Patients with Atrial Fibrillation: New Concepts and Controversies Control
Elizabeth A. Jackson MD, MPH

Translating the Advances in Evidence Based Medicine into Better Health Outcomes for People with Heart Failure
Ola Akinboboye, MD, MPH, MBA, FACP, FACC, FASNC, FSCCT, FAHA, DABSM; Jan Basile, MD; Phillip B. Duncan, MD; Icilma V. Fergus, MD, FACC; Elizabeth Ofili, MD, MPH, FACC; Anekwe Onwuanyi, MD; Laurence O. Watkins, MD, MPH, FACC; or Karol E. Watson, MD, PhD

Lipid Management and Cardiovascular Risk Reduction: The Evolving Treatment Paradigm
Ola Akinboboye, MD, MPH, MBA, FACP, FACC, FASNC, FSCCT, FAHA, DABSM; Jan Basile, MD; Phillip B. Duncan, MD; Icilma V. Fergus, MD, FACC; Elizabeth Ofili, MD, MPH, FACC; Anekwe Onwuanyi, MD; Laurence O. Watkins, MD, MPH, FACC; or Karol E. Watson, MD, PhD

Nonalcoholic Steatohepatitis: Identification and Evolving Treatment Strategies
Kalyan R. Bhamidimarri, MD, MPH

Chronic Hepatitis C: Update on Screening, Diagnosis, Management, and Promising New Treatments
Kalyan R. Bhamidimarri, MD, MPH

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

- 406 attendees in one city
- 46% Physicians; 47% NPs or PAs; 2% RNs; 2% Other
- 50% in community-based practice
- 69% PCPs, 4% Cardiologist; 1% Endocrinologist; 26% Other or did not respond
- 75% provide direct patient care

Did we reach the right audience? Yes!

Level 2: Satisfaction

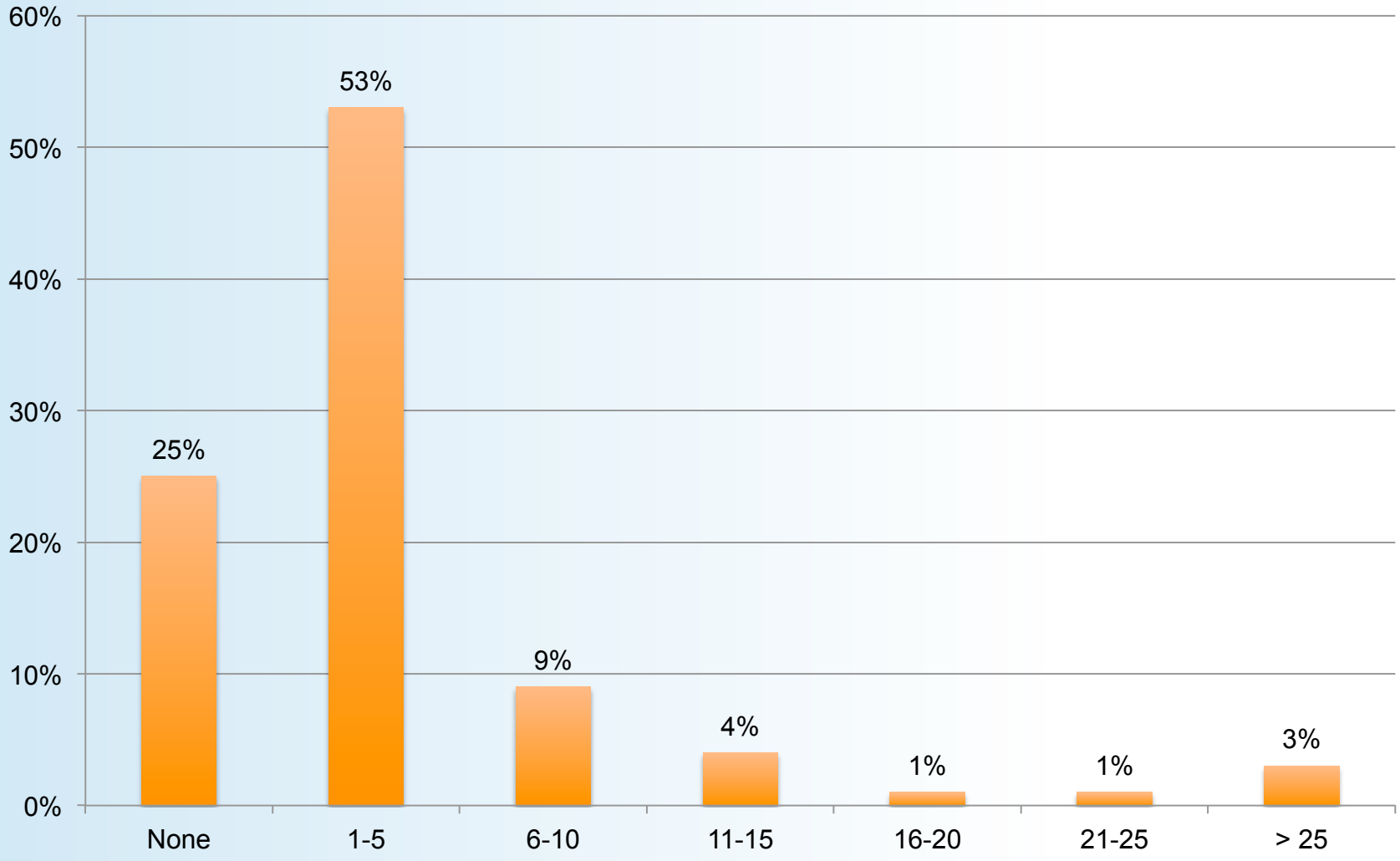
- 100% rated the activity as excellent
- 100% indicated the activity improved their knowledge
- 100% stated that they learned new and useful strategies for patient care
- 90% said they would implement new strategies that they learned in their practice
- 100% said the program was fair-balanced and unbiased

Sample Size: N = approximately 406

Were our learners satisfied? Yes! Data was collected in one city for the Emerging Challenges in Primary Care program.

Inflammatory Bowel Disease: Focusing on the GI Tract to Maximize Results

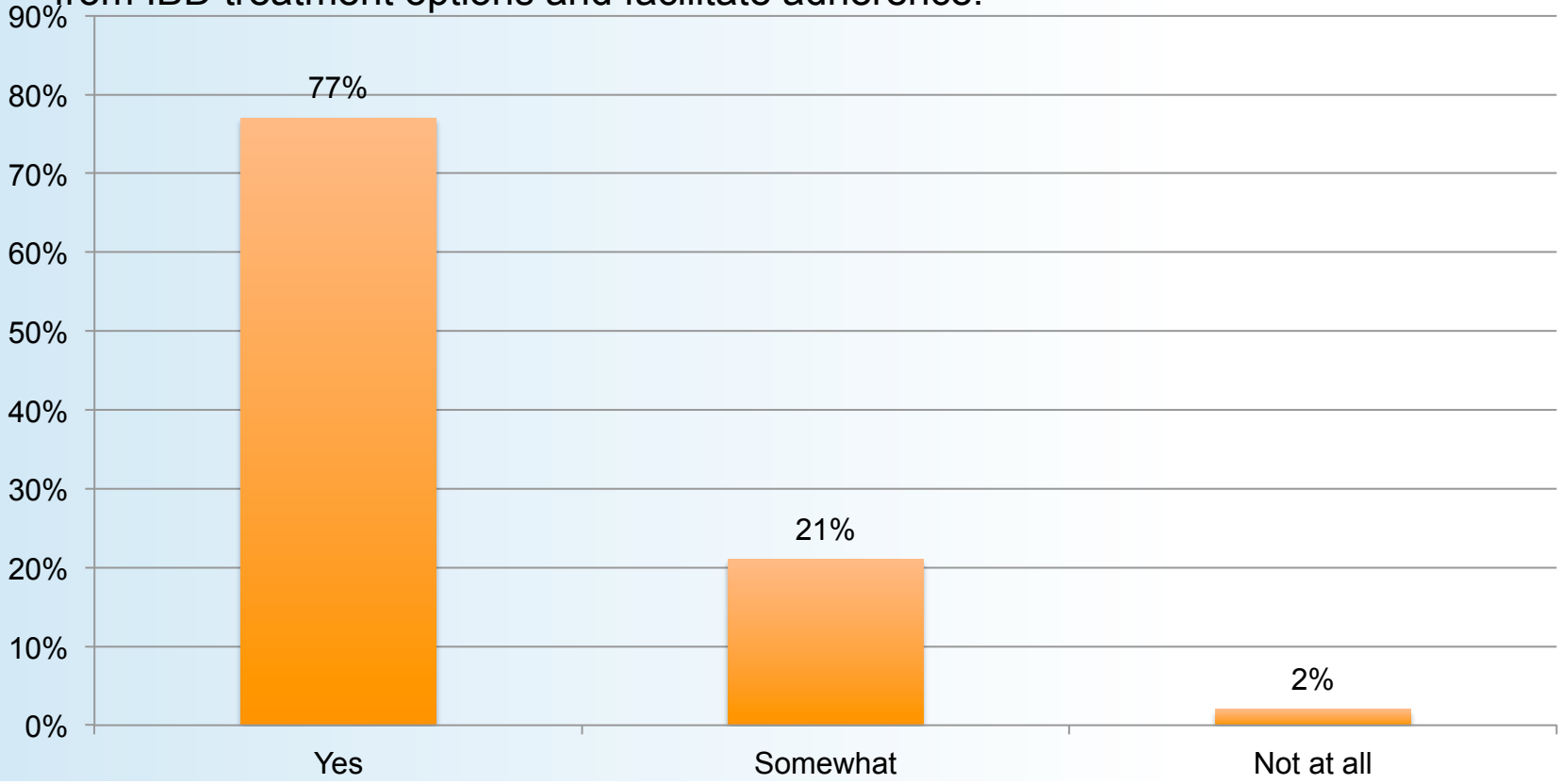
Patients seen each week in a clinical setting with Inflammatory Bowl Disease:



Sample Size: N = approximately 406

Did Learners Say They Achieved Learning Objective?

Upon completion of this activity, I can now –Address the conditions referred to as inflammatory bowel disease (IBD): Evaluate the degree of severity based on clinical measures of disease activity; the appropriate pharmacologic therapeutic strategies to clinical IBD presentations to maximize outcomes while minimizing toxicity; Identify patients who are at high risk of complications from IBD and who may benefit from new mechanisms of action in IBD therapy; Identify approaches to optimize benefits from IBD treatment options and facilitate adherence.



Yes! 98% believed they did. Data was collected in 1 city.

Sample Size: N = approximately 406

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 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 (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.

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

Faculty

Gerald W. Dryden, MD, MSPH, MSc, AGAF, FASGE

Learning Objectives

1. Recognize the conditions referred to as inflammatory bowel disease (IBD), and evaluate the degree of severity based on clinical measures of disease activity.

2. Match appropriate pharmacologic therapeutic strategies to clinical IBD presentations to maximize outcomes while minimizing toxicity.

3. Identify patients who are at high risk of complications from IBD and who may benefit from new mechanisms of action in IBD therapy.

4. Employ approaches to optimize benefits from IBD treatment options and facilitate adherence.

Key Findings

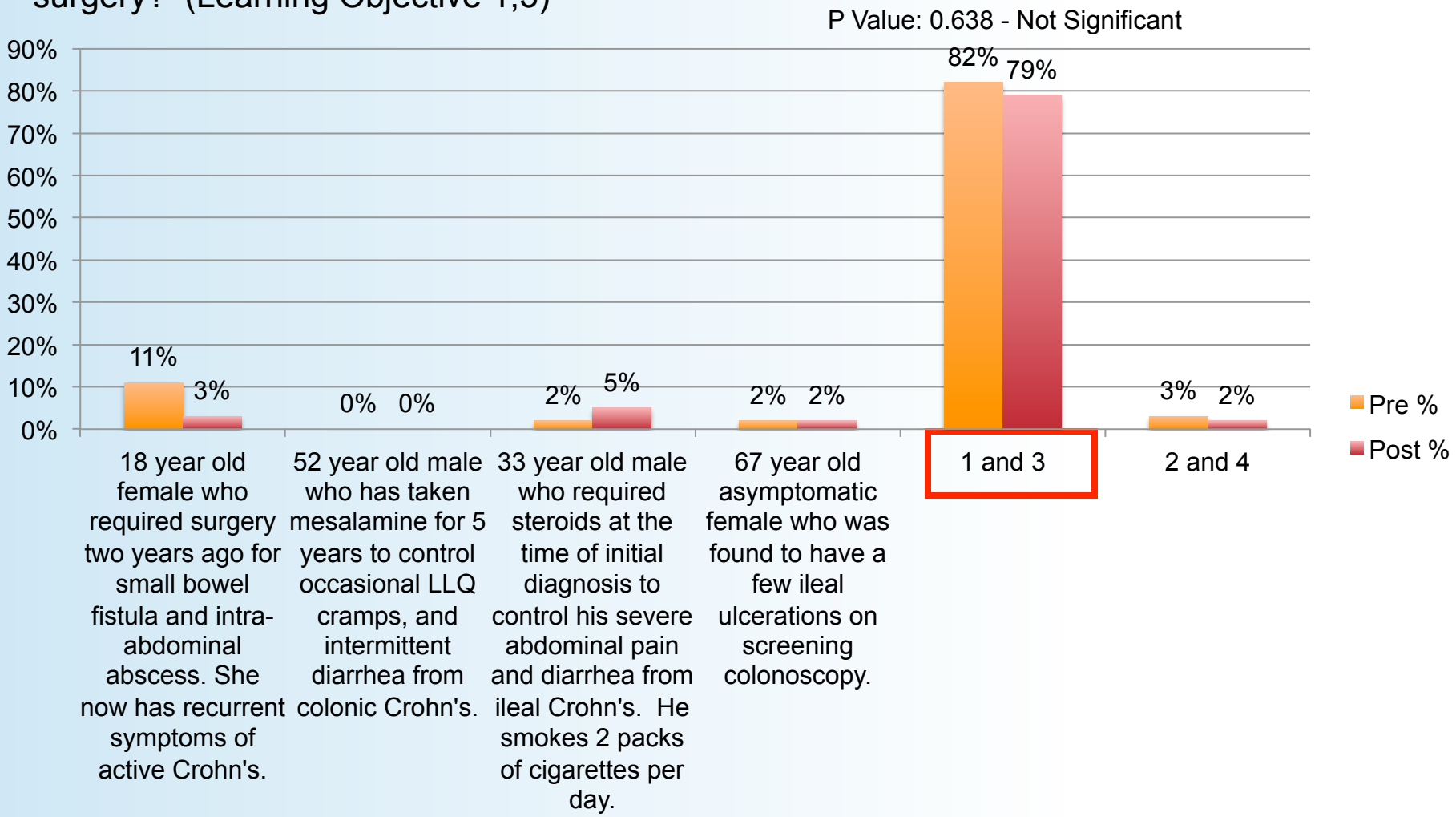
Inflammatory Bowel Disease: Focusing on the GI Tract to Maximize Results

Knowledge/Competence	Learners demonstrated improvement from pre to post-testing in their answers to *two* out of *four* of the case-based questions regarding approach to treating patients with inflammatory bowel disease.
Confidence	Whereas the majority of learners rated themselves as having slight confidence in their understanding of treating patients with inflammatory bowel disease before the education, most of the learners showed gains in confidence after the program.
Intent to Perform	As a result of this program, 35% of learners who did not treat patients inflammatory bowel disease before are considering doing so, while 29% who do, indicated that they will change their treatment methods.
Change of Practice Behavior 4 Weeks Post N= 40	93% 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)

Which clinical presentation of Crohn's disease predicts an increased risk for progression to surgery? (Learning Objective 1,3)



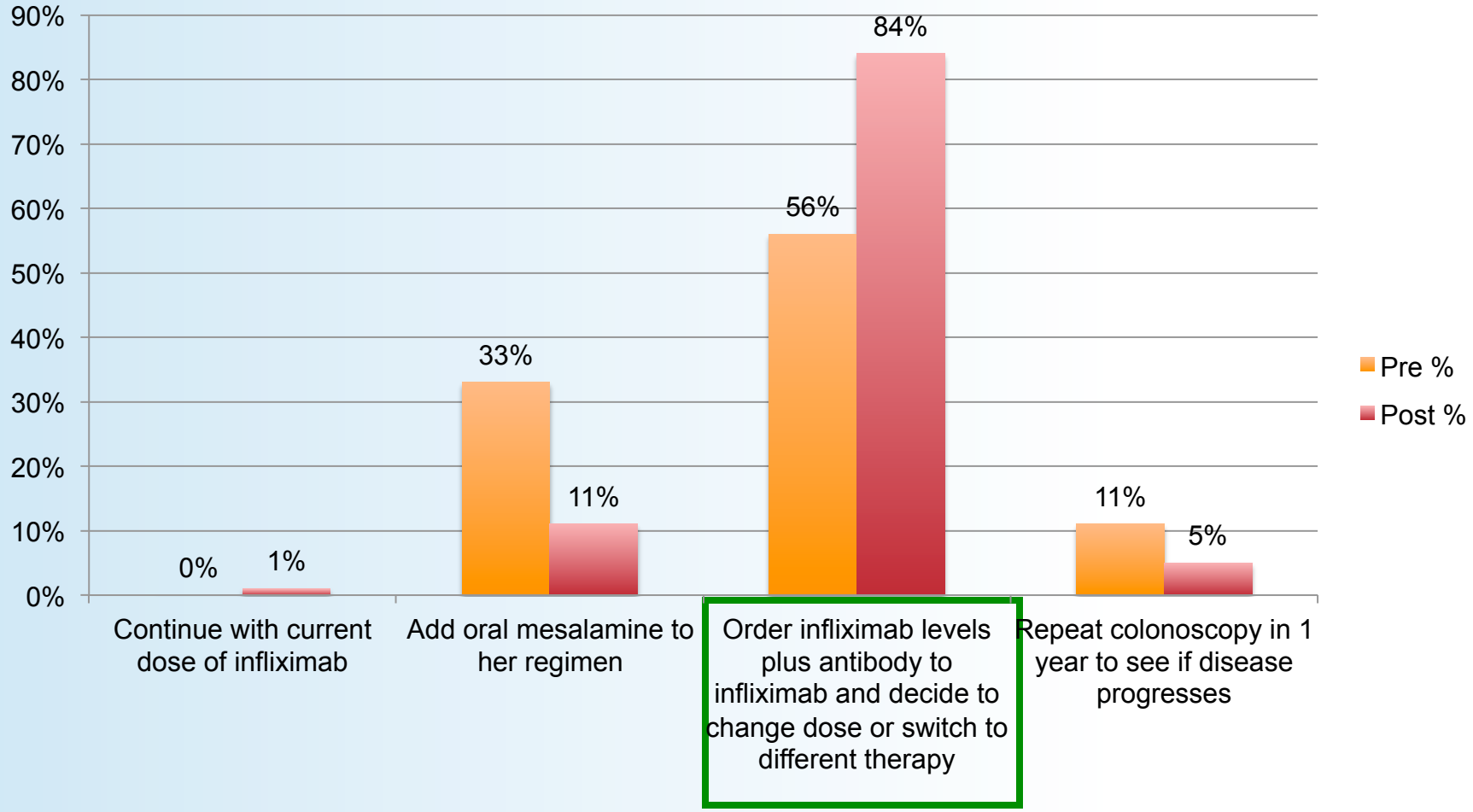
Pre N= 61 Post N= 124

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)

A 21 year old female presents with RLQ abdominal pain 6 months after resection of a strictured terminal ileum. A recent colonoscopy demonstrated multiple small bowel ulcerations despite ongoing infliximab therapy. Which action would most closely follow the "Treat to Target" strategy? (Learning Objective 2,3)

P Value: <0.001 - Significant

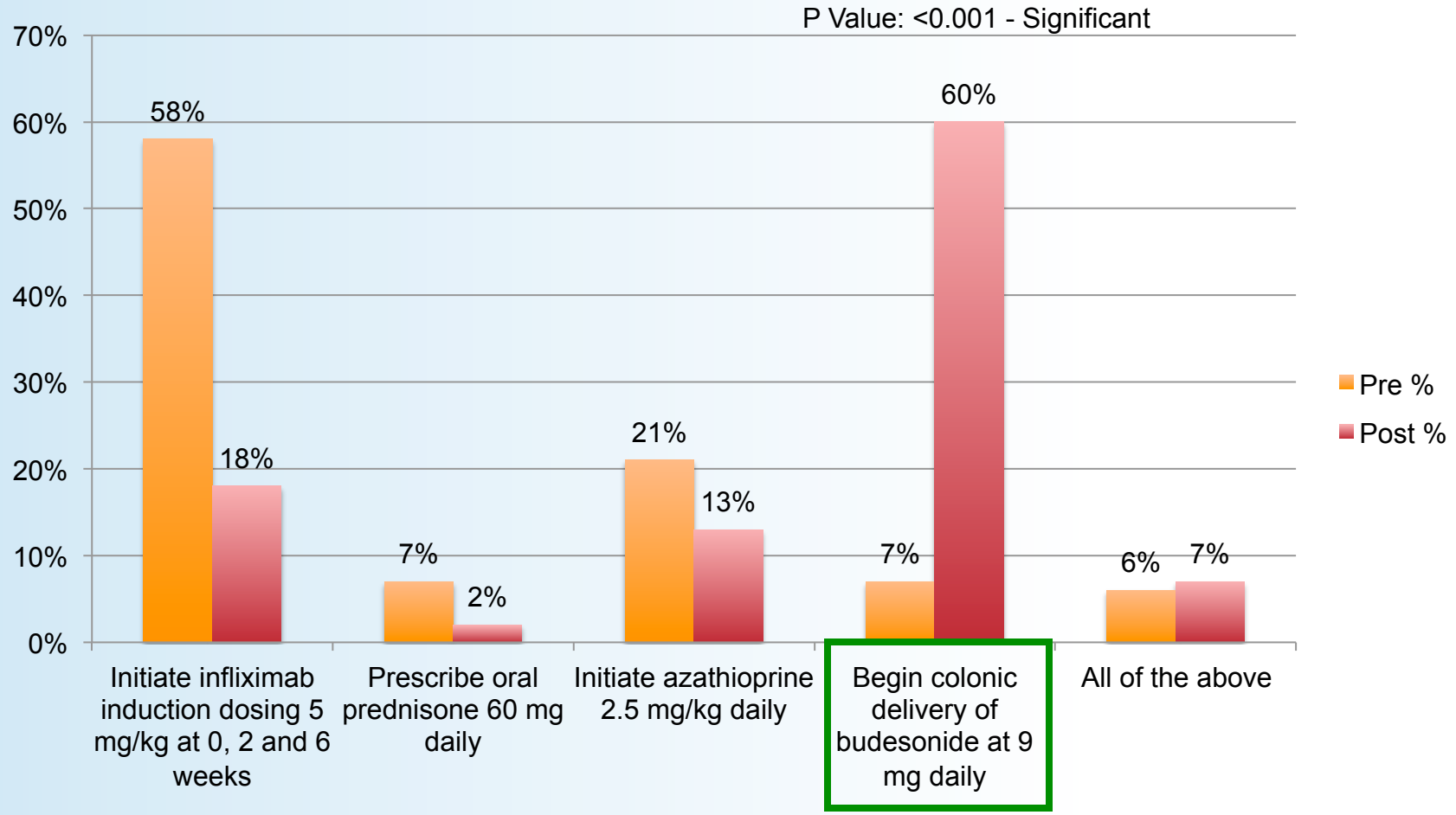


Pre N= 64 Post N= 132

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 male with long-standing pan-ulcerative colitis presents with an additional 2-3 bowel movements daily with occasional blood. You check for C. difficile and testing is negative. He wants to avoid the steroid side effects he's had in the past. You recommend the following therapy: : (Learning Objective 2,4)

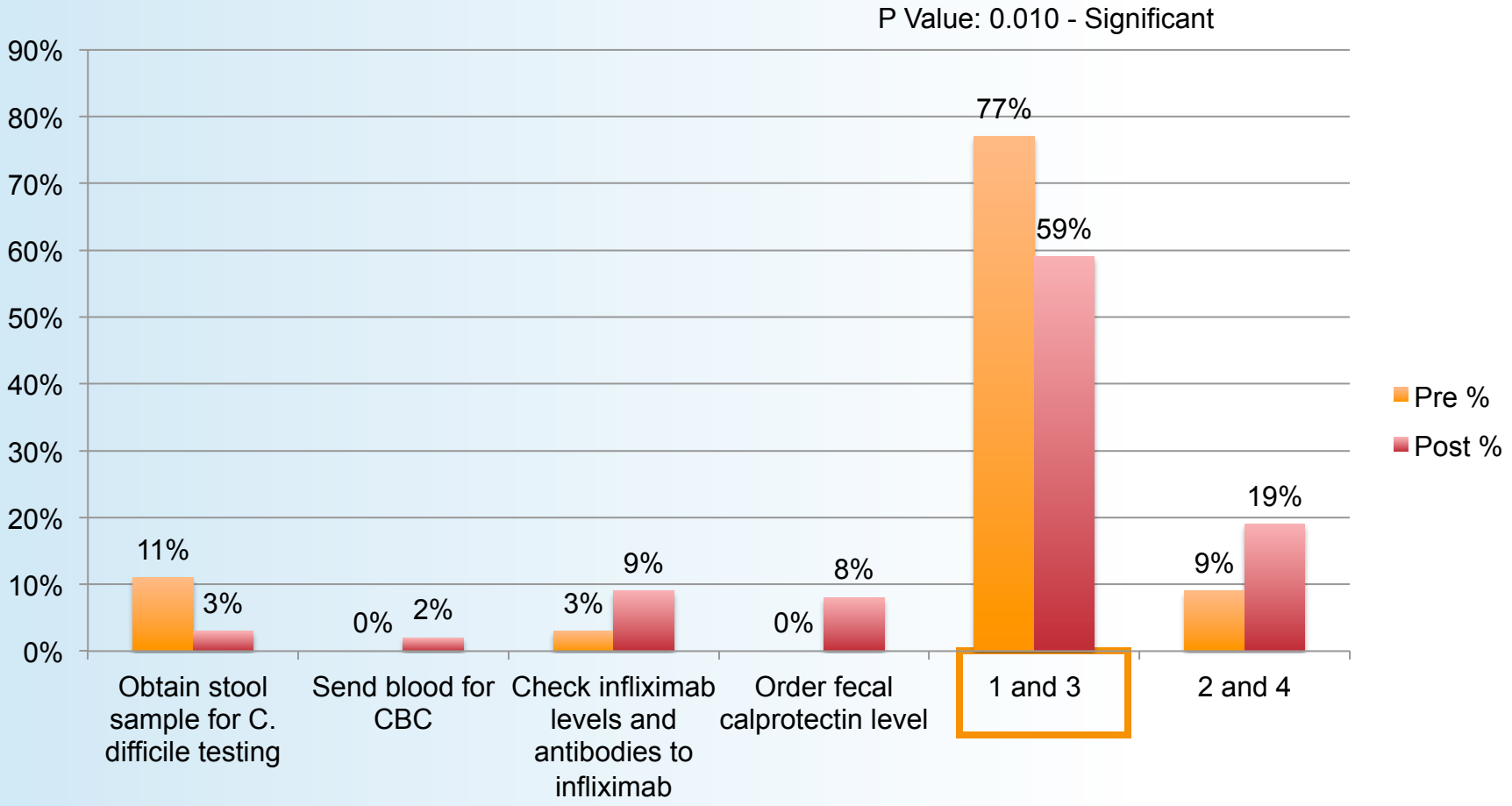


Pre N= 67 Post N= 123

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 43 year old female with severe Crohn's colitis has been well controlled on infliximab for years. She has recently experienced recurrent symptoms of RLQ abd pain and diarrhea. Colonoscopy demonstrated active ulcerations. Which diagnostic test can help you determine the cause of her flare? (Learning Objective 2)

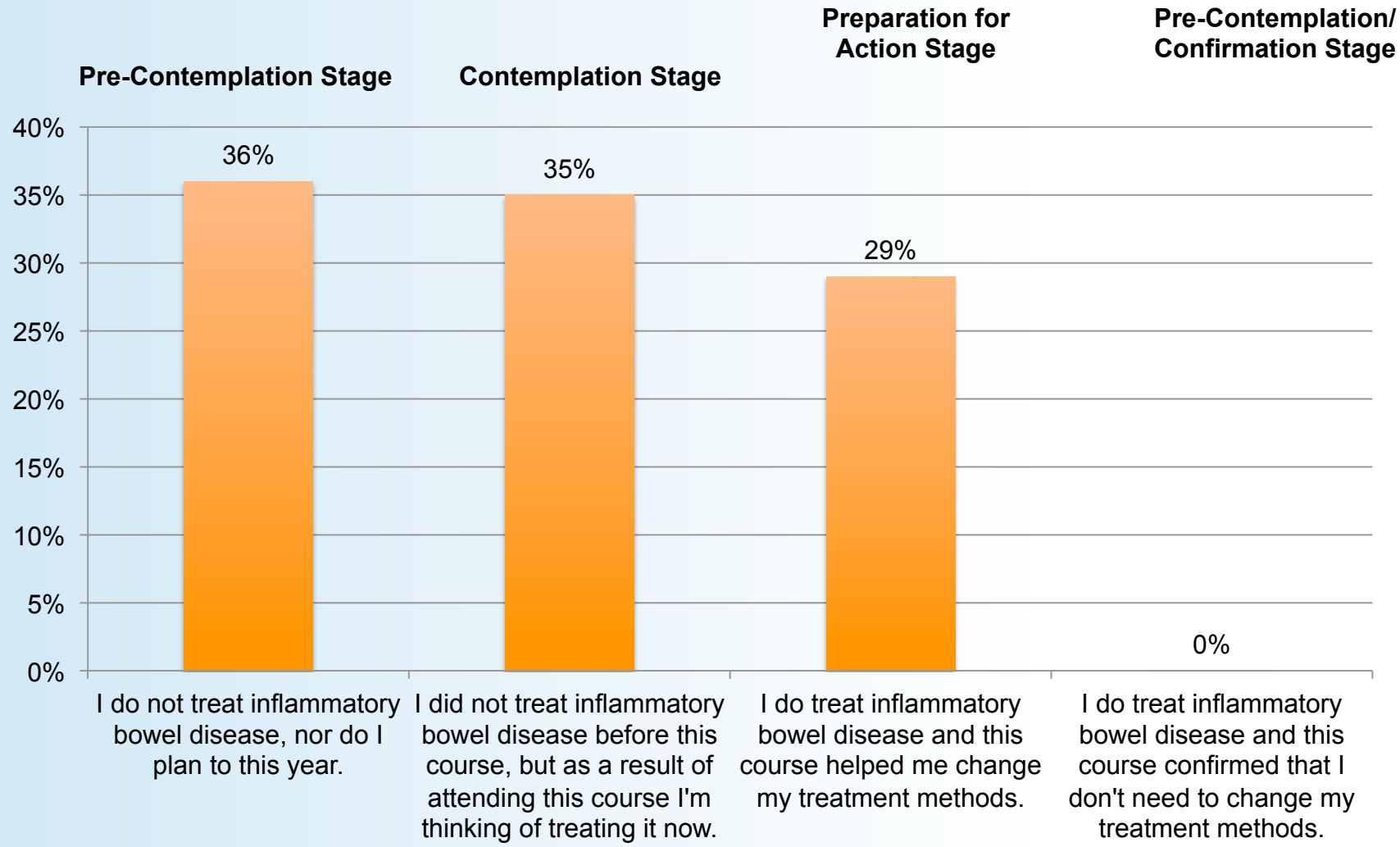


Pre N= 66 Post N= 121

Orange highlight indicates significant decline between pre and post testing.

Change in Practice Behavior Question
(presented after the lecture)

Which of the statements below describes your treatment of patients with inflammatory bowel disease?



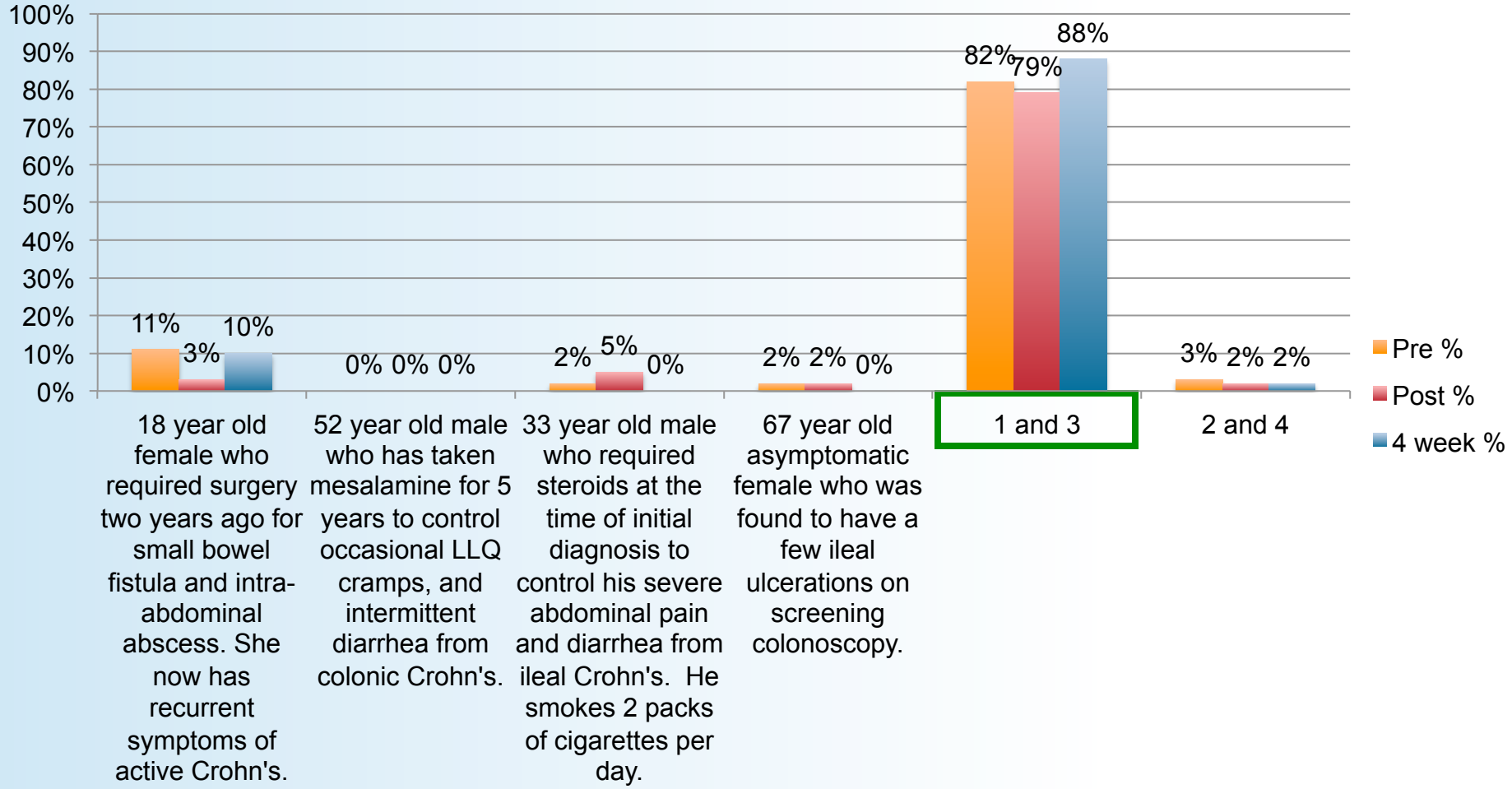
N= 78

Four Week Case Study Questions

Key Findings

Boxed answer is correct

Which clinical presentation of Crohn's disease predicts an increased risk for progression to surgery? (Learning Objective 1,3)



Pre N= 61 Post N= 124 4 week N= 40

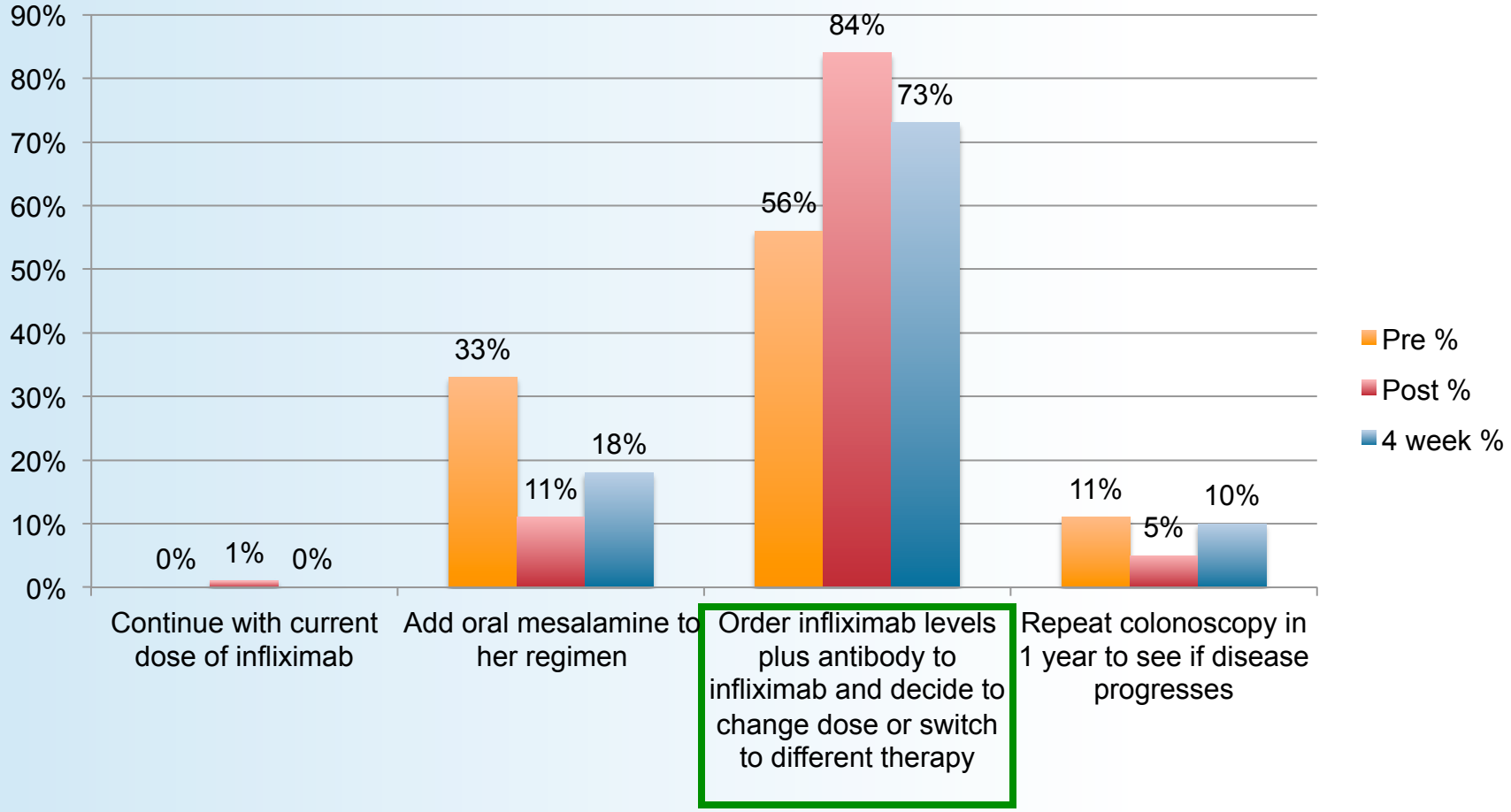
Green highlight indicates significant difference between pre and post testing.

Four Week Case Study Questions

Key Findings

Boxed answer is correct

A 21 year old female presents with RLQ abdominal pain 6 months after resection of a strictured terminal ileum. A recent colonoscopy demonstrated multiple small bowel ulcerations despite ongoing infliximab therapy. Which action would most closely follow the “Treat to Target” strategy? (Learning Objective 4)



Pre N= 64 Post N= 132 4 week N= 40

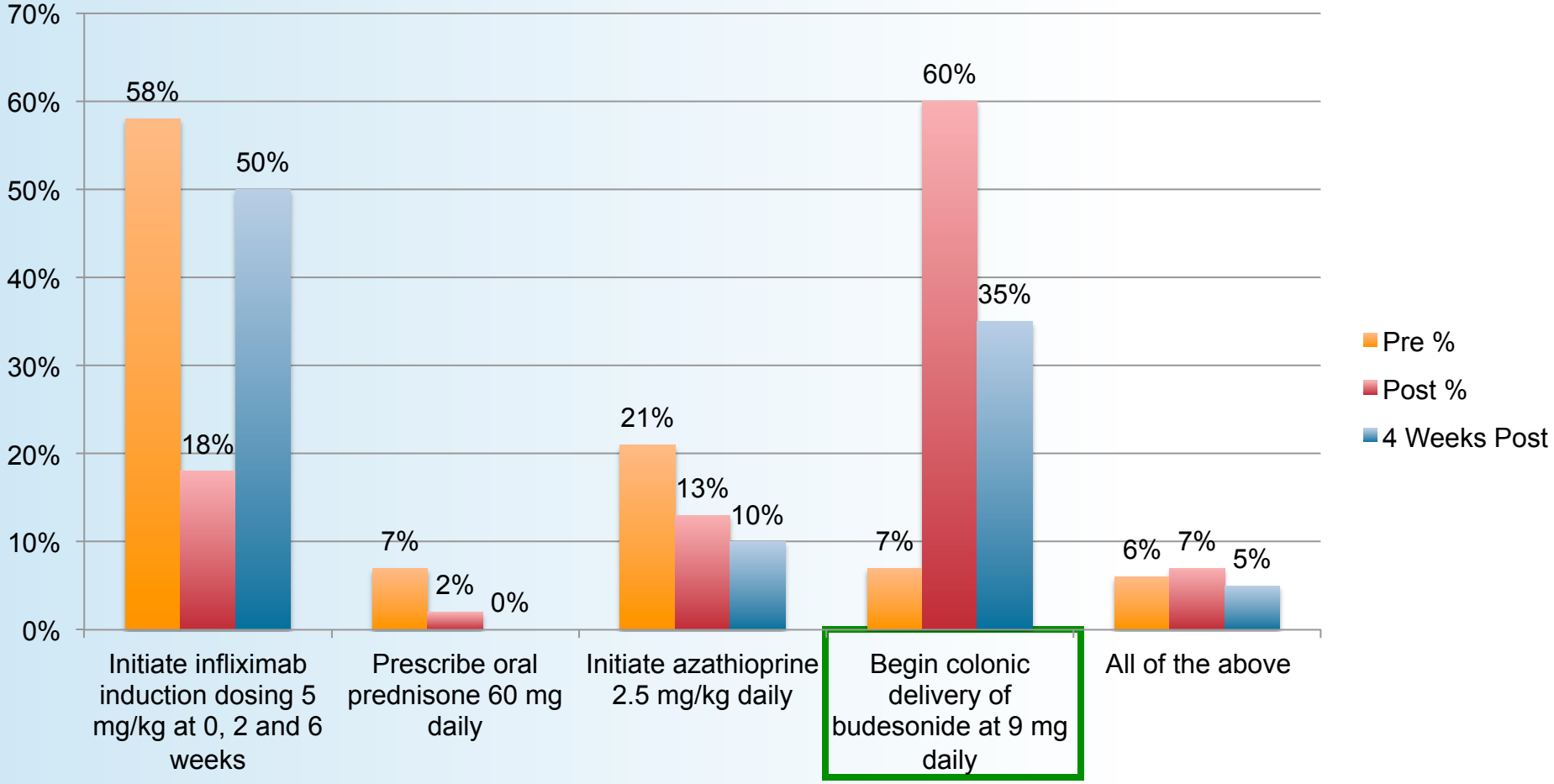
Green highlight indicates significant difference between pre and post testing.

Four Week Case Study Questions

Key Findings

Boxed answer is correct

A 38 year old male with long-standing pan-ulcerative colitis presents with an additional 2-3 bowel movements daily with occasional blood. You check for C. difficile and testing is negative. He wants to avoid the steroid side effects he's had in the past. You recommend the following therapy: : (Learning Objective 2)



Pre N= 67 Post N= 123 4 week N= 40

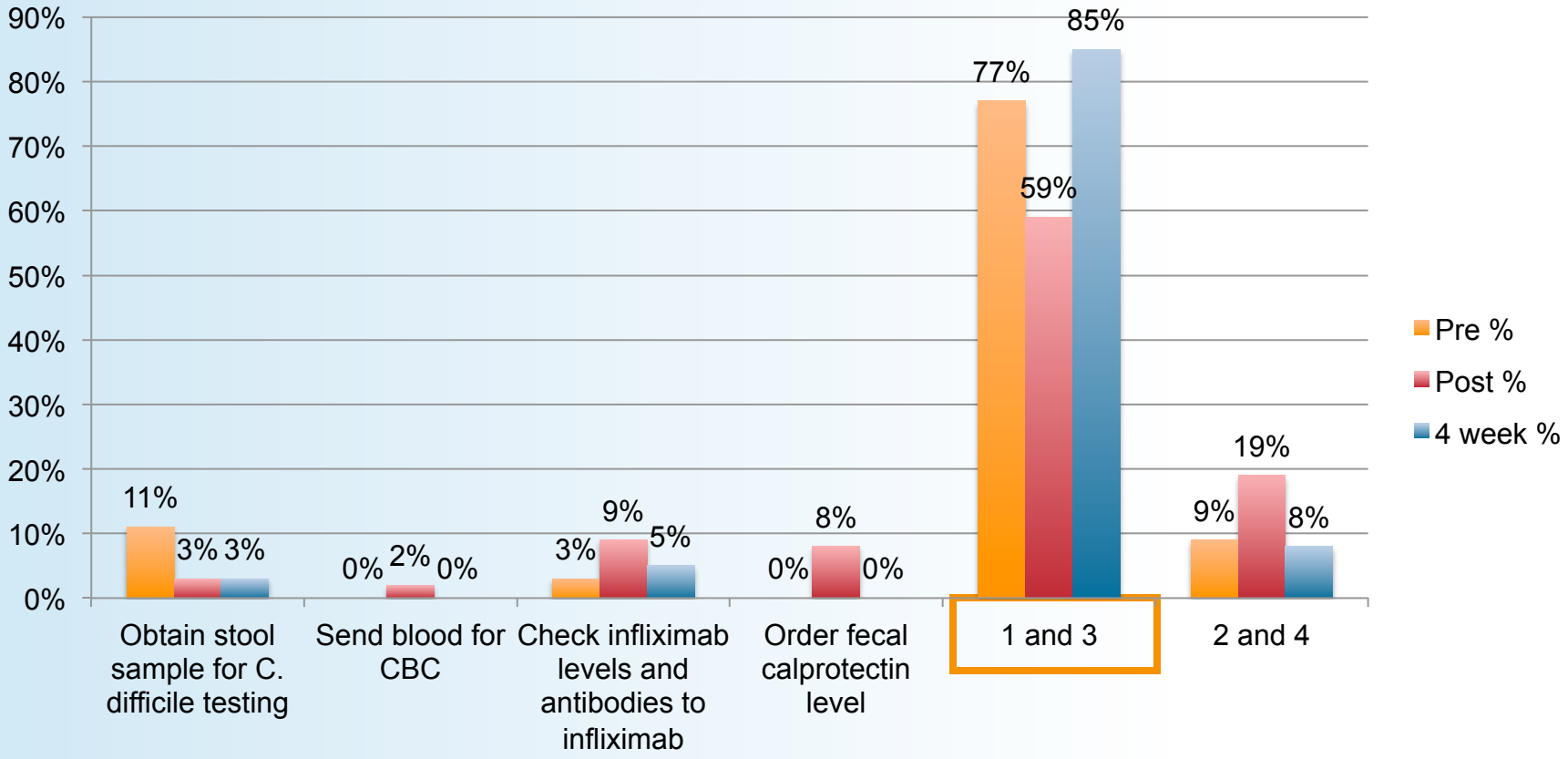
Green highlight indicates significant difference between pre and post testing.

Four Week Case Study Questions

Key Findings

Boxed answer is correct

A 43 year old female with severe Crohn's colitis has been well controlled on infliximab for years. She has recently experienced recurrent symptoms of RLQ abd pain and diarrhea. Colonoscopy demonstrated active ulcerations. Which diagnostic test can help you determine the cause of her flare? (Learning Objective 2)

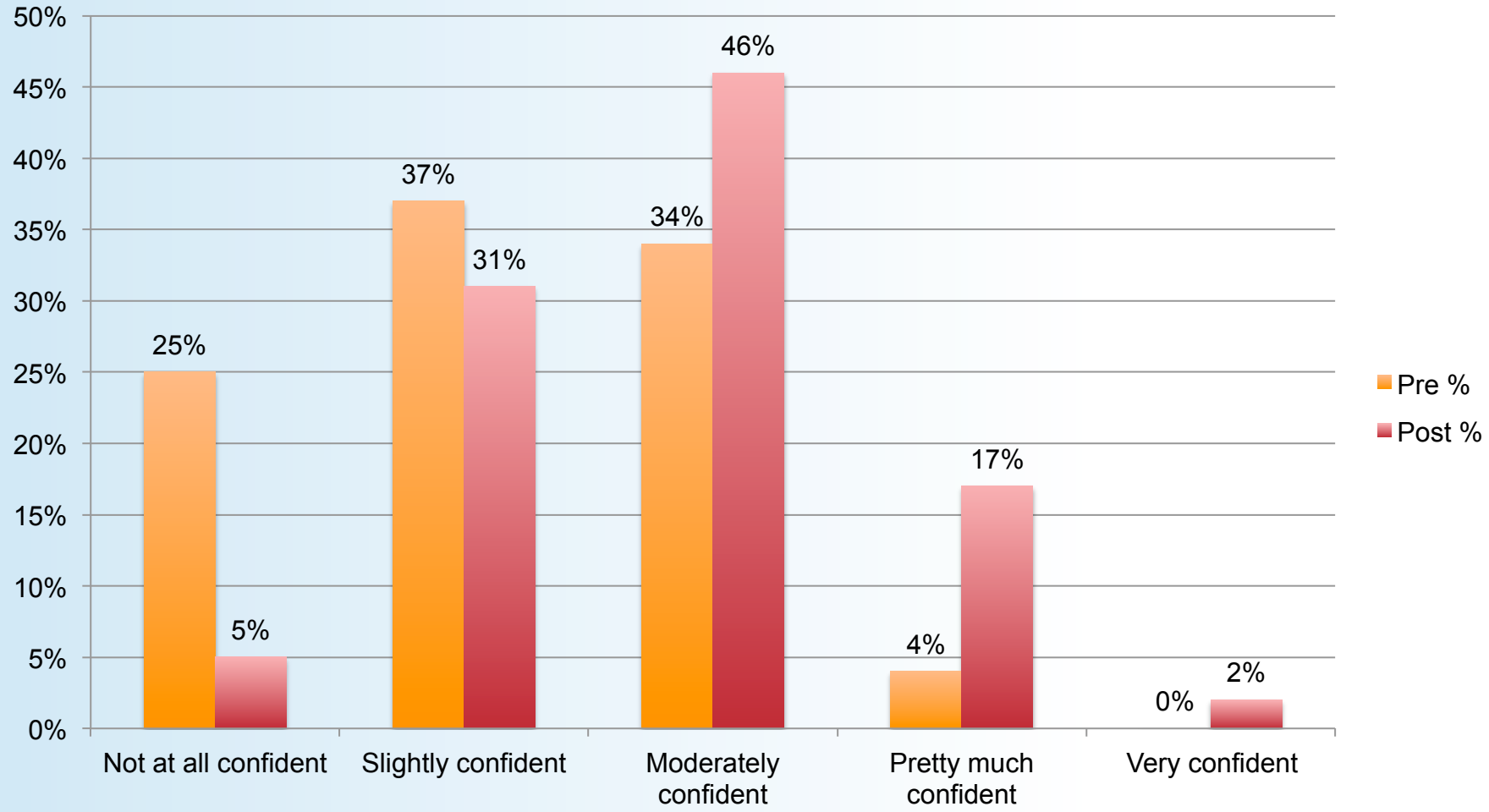


Pre N= 66 Post N= 121 4 week N= 40

Orange highlight indicates significant decline between pre and post testing.

Inflammatory Bowel Disease: Focusing on the GI Tract to Maximize Results

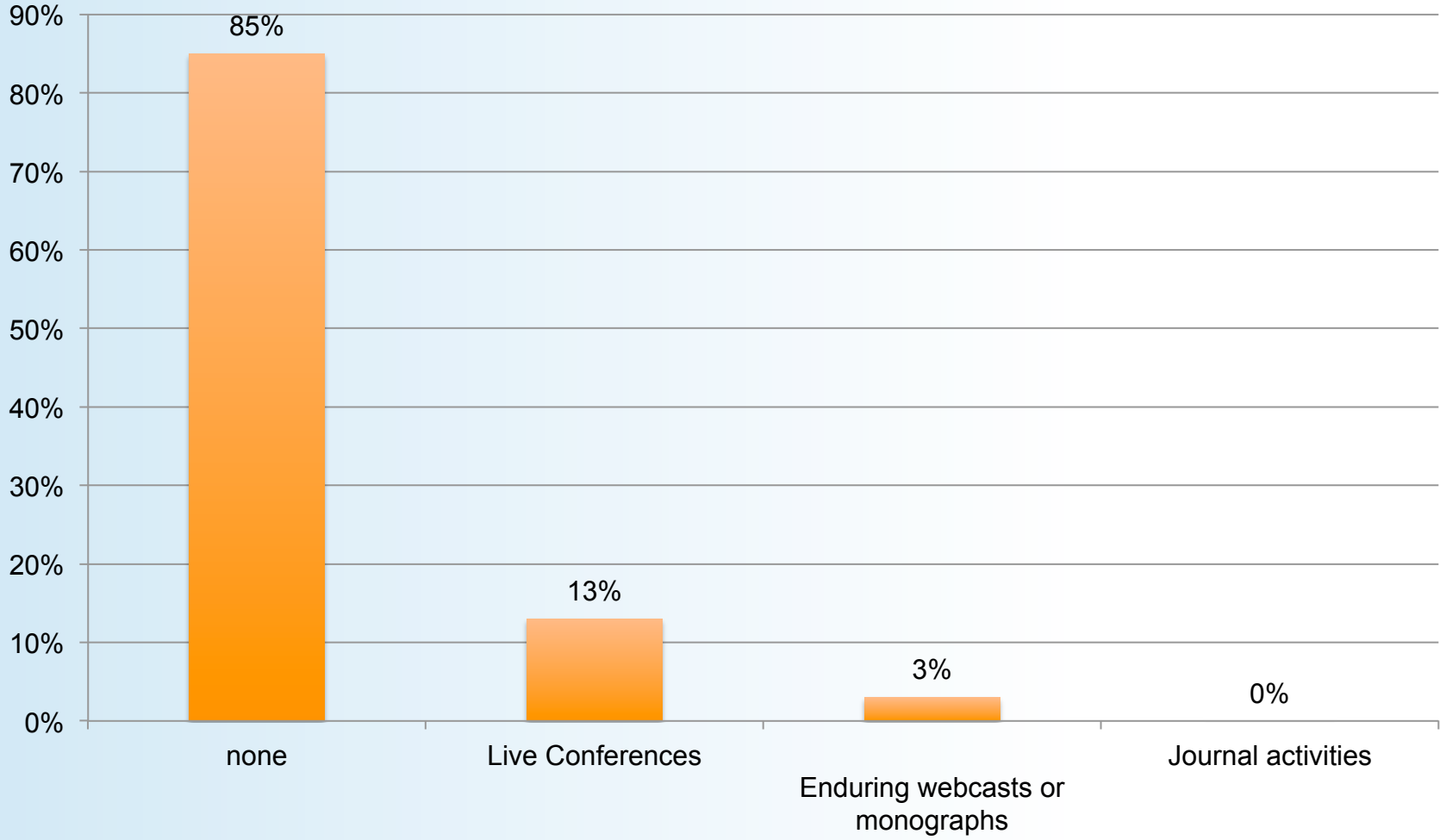
On a scale of 1 to 5, please rate how confident you would be in evaluating and treating a patient with inflammatory bowel disease (IBD):



Pre N= 73 Post N= 131

Inflammatory Bowel Disease: Focusing on the GI Tract to Maximize Results

Describe/list any other educational activities that you attended in the last month concerning the treatment of Inflammatory Bowl Disease?



4 Weeks Post N= 40

Inflammatory Bowel Disease: Focusing on the GI Tract to Maximize Results

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

- Referral to gastroenterology as indicated
- Better clinical approach to Dx of IBD
- Refer to GI, and understand which patients are likely to have worse outcomes
- Considering newer therapies for refractory symptoms
- Awareness of Infliximab level and antibody
- Increased vigilance over looking for the disease
- More confident on making the diagnosis and current treatments
- Educating patients with severe IBD on different treatment options
- Aware of alternative medications to steroids
- Will consider colonic budesonide treatments

Inflammatory Bowel Disease: Focusing on the GI Tract to Maximize Results

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

- High cost of the medications.
- Insurance coverage.
- Limited amount of patients with IBD in my practice
- Cost of meds or patients unwillingness to take meds..
- Patients' fears of some of side effects of meds on TV
- Patients not cooperating
- Time and non adherence of patient for proper F/U
- Insurance issues

Discussion and Implications

Inflammatory Bowel Disease: Focusing on the GI Tract to Maximize Results

The need for continued education on the diagnosis, treatment and management of Inflammatory Bowel Disease 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. Data collected from 406 clinicians in 1 meeting indicates statistical improvement in knowledge in two of the four areas tested. Specifically, as a result of this lecture, participants: understand that “Treat to Target” management strategy for a patient failing infliximab therapy includes getting drug and drug antibody levels prior to deciding on increasing or changing medications, and are more aware of steroid sparing treatment strategies, like pan-colonic delivery of medications for patients with progressive symptoms. Learners had a high baseline awareness of predictors of risk of progression to surgery. At the start of the lecture, learners scored highly on ways to determine the cause of an Ulcerative Colitis flare, but after learning about fecal calprotectin, they incorrectly thought this would help determine the cause of the flare, rather than just a marker of inflammation. There was a marked improvement on this question after 4 weeks indicating participants understood the faculty explanation of the correct answer, and remembered it.

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

Persistent gaps in knowledge were evident with additional education needed in the following areas: recognition of patients at highest risk for progression to surgery that require more aggressive therapies; “Treat to Target Strategies;” steroid sparing strategies based on disease activity; and testing protocols to clarify source and severity of disease flares.

Discussion and Implications

Inflammatory Bowel Disease: Focusing on the GI Tract to Maximize Results

Moderate to very confident levels in the evaluation and treatment of a patient with Inflammatory Bowel Disease rose from 38 to 65%. 35% of learners that did not treat patients with Inflammatory Bowel Disease before the program are now thinking of it, and 29% are now planning on changing what they do as a result of this course. Although 36% of learners reported not actively treating patients with IBD, 90% of participants felt that they are likely to utilize information learned from this presentation in their practice. After 4 weeks, 93% of respondents reported changing their practice behavior as a result of this course. 75% of attendees report seeing patients with Inflammatory Bowel Disease in their practice. This suggests that the clinicians recognize that they care for these patients, but have not been actively involved in IBD management in the past, but may do so moving forward.

Attendees indicated multiple new, specific, practice behaviors they implemented as a result of this program that included: greater awareness of IBD signs and symptoms, more rapid GI referral for evaluation of uncontrolled symptoms, more emphasis on patient education, consideration of newer therapies for refractory symptoms, more vigilance in screening for disease, awareness of steroid sparing alternatives, and recognition of testing for drug and drug antibody levels for making therapeutic decisions. 85% of attendees had no other exposure to a CME program indicating that their behavior change was likely a result of this program.

Barriers to care surrounded: cost of medications and tests, insurance issues, patient compliance, time to spend with patients, and lack of patient exposure.

The notable changes in post test scores, and intent to change practice patterns regarding the diagnosis and management of Inflammatory Bowel Disease, signifies a clear gap in knowledge and an unmet need among clinician. It continues to be an important area for future educational programs.