Acing the IBD Questions on the GI Board Exam: The Ultimate Crunch-time Resource
Editors: Brennan Spiegel and Hetal Karsan
Publisher: SLACK
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This study guide is the third installment in the “Acing” series, which focuses on key inflammatory bowel disease (IBD) issues that will be covered on the gastroenterology board exam. This book is organized into three main sections: an overview of most common IBD subjects on the test; “Tough Stuff” vignettes that highlight IBD-related medical and surgical problems; and a “Crunch-Time” self-test with answers.

The majority of the book contains medical vignettes, such as IBD and pregnancy, common extra-intestinal gastrointestinal manifestations, and key therapy side effects or treatment options during disease flares. The strongest feature of this book is its tables and photos (includes endoscopic and extra-intestinal findings), which could be useful for short-term studying, rather than reading through the detailed vignettes. Additionally, each vignette ends with a “Here’s the Point!” sentence to summarize the most board-worthy information.

The self-study test at the end of the book gives common exam keyword phrases and challenges the reader to actually know the material, as most questions are fill-in-the-blank or true/false options. These questions test the reader’s progress on IBD knowledge if taken before the board exam (unlike multiple choice questions, which can be answered by rote memory after seeing the questions once before).

A drawback to using this book as a study guide, however, is its lack of quick-referencing ability. There seems to be no organization within the vignettes section by subject—such as quickly locating Crohn disease and ulcerative colitis topics, post-surgical complications, medical treatments, etc. Because of this deficiency, the book is less usable as a “crunch time” resource, unless the reader has manually flagged important pages or diagrams. A more detailed table of contents or index would be a welcome improvement to this book. Also, this book contains no pediatric-specific IBD information, although there are many adolescent scenarios presented throughout the vignettes.

Lastly, this book is not only useful as a quick board review study guide, but the in-depth subject information is very applicable to daily gastroenterology practice. It would be a great reference for fellows, gastroenterologists just out of training, or even seasoned practitioners that want a desktop reference with current best practices.

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Which Children Need a Fundoplication?
Gastroesophageal reflux disease (GERD) symptoms in children can be difficult to detect, especially in infants, and the effect of pediatric patient age on performing an antireflux procedure (ARP) for GERD is not known. The authors of this study evaluated patient data retrospectively using the Pediatric Health Information System database which tracks treatment data from 41 United States children’s hospitals. In particular, ARP as treatment for GERD was examined in relation to initial or subsequent hospitalizations of pediatric patients. This patient group was compared to patients hospitalized for GERD without ARP being performed. Patient data was broken down by age (less than 2 months old, 2 to 6 months, 7 months to 4 years, and 5 to 17 years).

The database identified 141,190 patients for which 11,621 underwent ARP. Most patients who underwent ARP were 6 months of age or younger (52.7%). ARP patients were more likely to have Medicaid insurance coverage, had a longer hospital stay, had more diagnostic tests performed (most frequently, an upper gastrointestinal barium series), and were more likely to present with pneumonia and failure to thrive at admission. Significantly more patients undergoing ARP had associated co-morbidities, including neurodevelopmental delay, chromosomal anomalies, cardiopulmonary disease, cerebral palsy, and seizure disorders. Proportional hazard regression modeling demonstrated that risk of requiring ARP was greatest for children less than 2 months of age with hiatal hernia, failure to thrive, and neurodevelopmental delay as the largest ARP co-morbidity associations. The risk of undergoing an ARP increased for every consecutive hospitalization for GERD or aspiration pneumonia.

The authors point out that most ARP in this study population occurred in infants which is a problematic finding as this age group has normal physiologic regurgitation that may be misconstrued as GERD. Additionally, there was no demonstrated standardization for GERD testing to determine the necessity of ARP. This study demonstrates that we still do not have good guidelines to determine which type of child benefits most from ARP.


Are We Treating Crohn’s Disease in Children Correctly?
Crohn’s disease in children can be difficult to manage due to limited pediatric research regarding treatment options. The authors of this study utilized pediatric cohort data from the Risk Stratification and Identification of Immunogenetic and Microbial Markers of Rapid Disease Progression in Children with Crohn’s Disease study (also known as the RISK Stratification Study funded by the Crohn’s and Colitis Foundation of America). In particular, this study evaluated the effectiveness of immunomodulator (IM) medication (azathioprine, 6-mercaptopurine, methotrexate) compared to anti-tumor necrosis factor-alpha (TNF-α) medication started within 3 month of Crohn’s disease diagnosis in order to

(continued on page 70)
determine if therapy was controlling symptoms at one year. Patients from 28 pediatric gastroenterology centers in North America were enrolled and prospectively followed in an observational study to follow response to therapy. Multiple parameters were followed over time including body mass index, Tanner stage, Pediatric Crohn’s Disease Activity Index, endoscopic findings, and various pertinent laboratory tests such as albumin level, platelet count, erythrocyte sedimentation rate, and C-reactive protein level. The primary outcome consisted of corticosteroid-free remission (defined as a Pediatric Crohn’s Disease Activity Index or PCDAI less than 10).

Over a 4-year study period, 552 patients were enrolled in the study. Early use anti-TNF-α therapy occurred in 68 patients while early IM therapy was given to 248 patients and no early anti-TNF-α or IM therapy was given to 236 patients. At 3 months, early anti-TNF-α use was associated with statistically less corticosteroid exposure compared to early IM use or no anti-TNF-α or IM use. In a similar manner, at one year, early anti-TNF-α use was associated with statistically less corticosteroid exposure and decreased need for surgery compared to early IM use or no TNF-α or IM use. PCDAI scores and mean height z-scores at one year were significantly improved in those patients receiving early TNF-α therapy.

The most obvious conclusion from this study is that a paradigm shift is likely needed for Crohn’s disease therapy of pediatric patients. Early use of anti-TNF-α medication in this patient group appears to be associated with improved clinical outcomes compared to IM or other therapies.


John Pohl, M.D., Book Editor, is on the Editorial Board of Practical Gastroenterology
Methotrexate Combined with Infliximab is Not More Effective than Infliximab Alone in Crohn’s Disease with Prednisone Induction Therapy

To evaluate the potential superiority of combination therapy over infliximab alone, a 50-week, double-blind, placebo-controlled trial was carried out to compare methotrexate and infliximab, with infliximab alone in 126 patients with Crohn’s disease (CD) who had initiated prednisone induction therapy (15 to 40 mg/day), within the preceding six weeks. Patients who were assigned randomly to groups given MPX had an initial weekly dose of 10 mg, escalating to 25 mg/week (N = 63), or a placebo (N = 63). Both groups received infliximab (5 mg/kg of body weight) at weeks 1, 3, 7, and 14 and every 8 weeks thereafter. Prednisone was tapered beginning at week 1 and discontinued no later than week 14.

The primary outcome was time to treatment failure, defined as a lack of prednisone-free remission (CDAI less than 150), at week 14 or failure to maintain remission through week 50.

Baseline characteristics were similar between groups of patients. By week 50, the actuarial rate of treatment failure was 30.6% in the combination therapy group, compared with 29.8% in the infliximab monotherapy group. Prespecified subgroup analyses failed to show a benefit in patients with short disease duration or an increased level of CRP.

No clinically meaningful differences were observed in secondary outcomes. Combination therapy was well tolerated.

It was concluded that the combination of infliximab and methotrexate, although safe, was no more effective than infliximab alone in patients with CD receiving treatment with prednisone.


Reduced Risk of Colorectal Cancer Ten Years After Colonoscopy

A population-based, case-controlled study of 3148 patients with a first diagnosis of colorectal cancer (CRC) and 3274 subjects without CRC (controls), from the Rhine-Neckar region of Germany from 2013 to 2010 was carried out.

Detailed information on previous colonoscopy and potential confounding factors were corrected by standardized personal interviews. Those findings were validated by medical records, multiple logistic regression was used to assess the association between colonoscopy conducted for specific indications within the past 10 years and risk of CRC.

A history of colonoscopy was associated with a reduced subsequent risk of CRC, independent of the indication for examination. However, somewhat stronger associations were found for examinations with screening indications than for examinations with diagnostic indications, such as positive fecal occult blood test result, surveillance after a preceding colonoscopy, rectal bleeding, abdominal symptoms, or other.

Colonoscopy was also associated with a reduced risk of cancer in the right colon, regardless of the indication, although to a smaller extent than for other areas of the colon.

It was concluded that in a population-based, case-controlled study, the risk of CRC was strongly reduced up to 10 years after colonoscopy for any indication. Risk was particularly low after screening colonoscopy, even for cancer in the right colon.


Colonoscopy Reduces Colorectal Cancer Incidence in Older Individuals

To investigate whether sigmoidoscopy or colonoscopy is associated with a decreased incidence of colorectal cancer (CRC) in older individuals, and whether the effect of colonoscopy differs by anatomic locations, a case-controlled study was carried out using linked US Veterans Affairs and Medicare data. Cases including veterans age 75 years or older diagnosed with CRC in fiscal year 2007 were matched for age and sex to three individuals without a CRC diagnosis (controls). The number of cases and controls who received colonoscopies or sigmoidoscopies from fiscal year 1997 to a date 6 months before the diagnosis of CRC (for

(continued on page 74)
cases), or to a corresponding index date (for controls), were determined.

The probability of exposure was modeled using generalized linear mixed equations, adjusted for potential confounders. For the analysis of CRC risk in different anatomic locations, the proximal colon was defined as proximal to the splenic flexure.

A total of 623 cases in 1869 controls with a mean age of 81 years, 98.7% male, 86.2% Caucasian, were identified. Among cases, 243 (39%) underwent any lower endoscopy (177 colonoscopies). Among controls, 978 (52.3%), underwent any lower endoscopy (758 colonoscopies). Cases were significantly less likely than controls to have undergone lower endoscopy within the preceding 10 years (OR 0.58). This effect was significant for colonoscopy, but not sigmoidoscopy.

Similar results were observed when a 5-year exposure window was applied. Colonoscopy was associated with a reduced risk of distal CRC (OR 0.45) and proximal CRC (OR 0.65).

It was concluded in a study of US Veterans Affairs and Medicare databases, lower endoscopy in the preceding 10 years was associated with a significant reduction in CRC incidence among older veterans. Colonoscopy is associated with reductions in distal and proximal CRC.


Direct-Acting Antiviral Combination Medications Efficacy Against HCV Genotype 1 Infection
An all-oral regimen comprising the nucleotide polymerase inhibitor sofosbuvir (SOF) with the NS-5A inhibitor ledipasvir (LDV) or the NS-5B non-nucleoside inhibitor GS 9669, was evaluated in patients with genotype 1 HCV infection.

A total of 113 patients were enrolled. SOF 400 mg once daily and LDV 90 mg once daily plus ribavirin (RBV) were given for 12 weeks to treatment-naïve (TN) patients (N = 25), and those who did not respond to previous therapy (null responders - N = 9). SOF and GS-9669 (500 mg once daily), plus RBV were given for 12 weeks to TN patients (N = 25) and prior null responders (N = 10).

Additionally, prior null responders with cirrhosis were randomly assigned to groups, given a fixed dose combination of SOF and LDV, with RBV (N = 9), or without RBV (N = 10).

Finally, a group of TN patients received SOF, LDV and RBV for 6 weeks (N = 25). The primary efficacy endpoint was SVR 12 weeks after therapy.

SVR 12 was achieved by 25/25 TN patients receiving SOF, LDV, and RBV, and 23/25 of patients receiving SOF, GS-9669, and RBV. Of TN patients receiving 6 weeks of SOF, LDV and RBV, 17/25 (68%) achieved SVR 12.

All noncirrhosis prior null responders receiving 12 weeks of SOF, along with other direct-acting antiviral agents plus RBV achieved SVR 12. Of those receiving SOF, GS-9669, 10/10 achieved SVR 12. Among cirrhotic prior nonresponders, SVR 12 was achieved by 9 (100%) of those receiving SOF, LDV and RBV, and 7 (70%) of those receiving SOF an LDV without RBV. The most common reported adverse events were headaches, fatigue, and nausea.

It was concluded that the combination of SOF and second direct-acting antiviral agent is highly effective in TN patients with HCV genotype 1 infection and in patients that did not respond to previous treatment.


Murray H. Cohen, D.O., “From the Literature” Editor, is on the Editorial Board of Practical Gastroenterology.

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We offer the following list to help you conform to our mechanical requirements:

1. Please submit one copy of the manuscript, which should be typed on 8½ × 11″ paper, with 1″ margins, and double-spaced throughout, including references, tables, and figure legends. Ideally, the length of the manuscript should be 2000–2500 words (10–13 pages). Manuscripts should be submitted via e-mail to: PracticalGastro@aol.com

2. Manuscripts must be submitted in Microsoft Word or Corel WordPerfect only. Files should not contain automatic footnoting (END CODE) and they should be submitted as final format documents (without indications of markup).

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OXFORD, CA — The Kenneth Rainin Foundation’s 2014 Innovations Symposium: Taming the Microbiome will take place from 8 AM to 5 PM at the Union Square Marriott in San Francisco. The annual event brings together influential and collaborative researchers and institutions, with the common goal of curing Inflammatory Bowel Disease (IBD), a disease that affects five million people worldwide. The Symposium provides a nexus of diverse people, ideas and insights with the potential to accelerate and transform IBD research.

A new addition to the Symposium this year is the Rainin Foundation’s Synergy Award, a grant opportunity available only to conference participants. This award was established to encourage synergistic, discovery-oriented projects that feature interdisciplinary collaboration. The Synergy Award will provide $100,000 in research support for one year to each investigator on the team, up to a total of $300,000.

**Keynote Speakers:**

Michael A. Fischbach, PhD – University of California, San Francisco
Insights from a Global View of Secondary Metabolism: Small Molecules from the Human Microbiota

Rob Knight, PhD – Howard Hughes Medical Institute, University of Colorado
Meta-analyses and Cross-cohort Studies of the Human Gut Microbiome with Application to IBD

W. Ian Lipkin, MD – Columbia University, Center for Infection & Immunity
Small Game Hunting

Margaret McFall-Ngai, PhD – University of Wisconsin, Madison
Using Animal Models to Discover the Rules of Epithelial-surface Colonization by Bacteria

To learn more about the symposium, please visit: [rainin-symposium.com](http://rainin-symposium.com)

**About the Kenneth Rainin Foundation**

The Kenneth Rainin Foundation believes that people working to effect change need an early champion to further their ideas. Like our founder, we listen to and invest in collaborative and innovative projects that advance the arts, education and health. Learn more at: [krfoundation.org](http://krfoundation.org)

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**A SIMPLE PHONE CALL CAN HELP PREVENT COLON CANCER**

**Katie Couric and the Entertainment Industry Foundation Launch Citywide “Make That Call” Campaign with NewYork-Presbyterian and its Jay Monahan Center for Gastrointestinal Health**

NEW YORK — Katie Couric, NewYork-Presbyterian Hospital and its Jay Monahan Center for Gastrointestinal Health, and the Entertainment Industry Foundation’s (EIF) National Colorectal Cancer Research Alliance (NCCRA) want you to “Make That Call” to your doctor for colon cancer screening if you are 50 or older or otherwise at high risk for colon cancer.

The annual citywide “Make That Call” campaign to increase colon cancer screening will run throughout March in recognition of Colon Cancer Awareness Month.

“With appropriate screening, colon cancer is often preventable and, when detected early, highly curable,” said Couric. “Colonoscopies save lives. That’s what ‘Make that Call’ is all about—understanding you can take charge of your health. So make that call, for yourself or someone you love.”

Collaborating on this initiative are the Colon Cancer Alliance, the American College of Gastroenterology, the American Society for Gastrointestinal Endoscopy, the New York Society of Gastrointestinal Endoscopy, the New York Public Library, Duane Reade, and the Food Emporium. Participants will display educational posters and fact sheets.

“Katie Couric is a longtime friend of NewYork-Presbyterian Hospital and founder of our Jay Monahan Center for Gastrointestinal Health. We applaud her for her passionate efforts to educate the public on the importance of colon cancer screening,” said Dr. Steven J. Corwin, CEO of NewYork-Presbyterian Hospital. “With Katie’s leadership and the support of all of this

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year’s collaborators, the ‘Make that Call’ campaign will again help save lives.”

Reasons to Make That Call to Your Doctor

• Colon cancer is the second-leading cause of cancer death in the United States.

• Colon cancer affects men and women equally.

• Symptoms for colon cancer may include rectal bleeding, change in bowel habits, abdominal pain and weight loss.

• Colon cancer is often preventable and when detected early, highly curable.

• Colon polyps and early cancers often cause no symptoms.

• Early screening saves lives!

“Every day we try to increase awareness about and compliance with colon cancer screening. This campaign is a complement to what we do year-round. We are very appreciative of all the support from our campaign collaborators and participating businesses and organizations for helping us to spread the ‘Make That Call’ message,” says Dr. Felice Schnoll-Sussman, director of The Jay Monahan Center for Gastrointestinal Health.

Patients can choose to see a physician with NewYork-Presbyterian/Columbia University Medical Center or NewYork-Presbyterian/Weill Cornell Medical Center. As part of the program, callers with questions about colon cancer screening who want more information about the “Make That Call” campaign can call:

877-902-2232
or visit: MakeThatCall.org
Follow @nyphospital and @katiecouric

NewYork-Presbyterian Hospital

NewYork-Presbyterian Hospital, based in New York City, is one of the nation’s largest and most comprehensive hospitals, with some 2,600 beds. In 2012, the Hospital had nearly 2 million inpatient and outpatient visits, including 12,758 deliveries and 275,592 visits to its emergency departments. NewYork-Presbyterian’s 6,144 affiliated physicians and 20,154 staff provide state-of-the-art inpatient, ambulatory and preventive care in all areas of medicine at six major centers: NewYork-Presbyterian Hospital/Weill Cornell Medical Center, NewYork-Presbyterian Hospital/Columbia University Medical Center, NewYork-Presbyterian/Morgan Stanley Children’s Hospital, NewYork-Presbyterian/The Allen Hospital, NewYork-Presbyterian Hospital/Westchester Division and NewYork-Presbyterian/Lower Manhattan Hospital. One of the most comprehensive health care institutions in the world, the Hospital is committed to excellence in patient care, research, education and community service. NewYork-Presbyterian is the #1 hospital in the New York metropolitan area and is consistently ranked among the best academic medical institutions in the nation, according to U.S. News & World Report. The Hospital has academic affiliations with two of the nation’s leading medical colleges: Weill Cornell Medical College and Columbia University College of Physicians and Surgeons. For more information, visit:

www.nyp.org

The Jay Monahan Center for Gastrointestinal Health at NewYork-Presbyterian Hospital/Weill Cornell Medical Center

The Jay Monahan Center for Gastrointestinal Health at NewYork Presbyterian Hospital/Weill Cornell Medical Center is a world-class gastrointestinal cancer and wellness center. The Monahan Center serves as a unique model of coordinated and compassionate care, dedicated to public education and the prevention, diagnosis and treatment of gastrointestinal cancers, including cancers of the colon, rectum, pancreas, esophagus, gallbladder, stomach and small intestine. The Monahan Center at NewYork-Presbyterian Hospital/Weill Cornell is located at the corner of 70th Street and York Avenue in New York City. For more information, visit:

www.monahancercenter.org

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MEETINGS CALENDAR

May 3 - 6, 2014 Digestive Disease Week
Exhibit Dates: May 4 – 6
McCormick Place, Chicago, IL – Join the world’s largest gathering of physicians and researchers in the fields of gastroenterology, hepatology, endoscopy and gastrointestinal surgery. Discover for yourself why DDW® is the gold-standard event in the field. Explore the top-quality educational sessions, abundant networking opportunities and cutting-edge research the meeting offers.
Explore the DDW 2013 program with MyDDW. DDW 2014 program details will be available in April 2014. For more information, visit: http://www.ddw.org

May 17 - 21, 2014 ASCRS Annual Scientific Meeting
Westin Diplomat Resort & Convention Center, Hollywood, FL – The American Society of Colon & Rectal Surgeons is the premier society for colon and rectal surgeons and other surgeons dedicated to advancing the science and treatment of diseases and disorders affecting the colon, rectum and anus. More than 1,000 of the Society’s 3,000 physician members are certified by the American Board of Colon and Rectal Surgery. The ASCRS Annual Scientific Meeting is the leading event in the field of colon and rectal surgery and more than 1,800 colorectal specialists are expected to attend.
The meeting will include oral and poster presentations, expert panels, symposia, meet the professor breakfasts and many other sessions encouraging audience participation. For more information, visit: www.fascrs.org/annual_meeting

September 16, 2014 Raising C Diff Awareness Conference
Royal Holloway, University of London, Egham Hill, Surrey, England – The C Diff Foundation, a nonprofit organization, is pleased to host the annual “Raising C Diff Awareness” Conference.Tuesday, September 16th, 2014 8:00 am – 4:30 pm
Registration anticipating to be open April 15, 2014 with additional details and a list of confirmed Guest Speakers. Exhibit Space is limited and Sponsorships are available. For more information contact Nancy C. Caralla, Executive Director at (919) 201-1512 or email the Foundation at: cdiff.foundation@yahoo.com or visit the website: www.cdifffoundation.org
C Diff Foundation: Educating, and advocating for C. diff. prevention, treatments, and environmental safety worldwide.

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# Practical Gastroenterology Crossword Puzzle

**By Myles Mellor**

## Down
1. Made pain less intense
2. _____ hepatology
3. 17th letter of Greek alphabet
4. Indicating the original name
5. Squashy
6. Absorption related
7. Natural prescription product to treat IBS-D
8. Liquid volumes
9. Thin surface
10. Hospital unit
11. Genetic info carrier
12. ___-existing condition
13. von Zimmerman wrote an important work on it
14. Decompose
15. Internet communication
16. Origin
17. Hospital unit
18. Hospital unit
19. Genetic info carrier
20. Hold title to
21. First name of “The father of gastroscopy”
22. A long-acting barbiturate used as a sedative
23. Clearness
24. Indefinite article
25. Element no. 82
26. Hook or whip ending
27. Indefinite article
28. Madison’s state
29. Compound whose molecules are composed of two identical monomers
30. Prostate diagnostic tool
31. Profit, abbr.
32. He made ground-breaking discoveries relating to gastric juices
33. Needing an update
34. Half a score
35. Accurate, of readings
36. Joule fraction
37. Band-____
38. So far

## Across
1. Greek word for intestine
5. McClendon’s instrument for measuring the acidity of gastric contents
8. Ending for college e-mail addresses
9. Crystalline organic compound that occurs in feces
11. Ejected matter
12. ___-existing condition
13. Von Zimmerman wrote an important work on it
15. Potassium nitrate
17. Half
18. Path for liver secretions (2 words)
20. Small piece of machinery
21. Roman emperor
23. Transplant facilitator
25. Element no. 82
26. Hook or whip ending
27. Indefinite article
28. Madison’s state
29. Compound whose molecules are composed of two identical monomers
31. Prostate diagnostic tool
32. He made ground-breaking discoveries relating to gastric juices
33. Needing an update
34. Half a score
35. Accurate, of readings
36. Joule fraction
37. Band-____
38. So far

**Answers on page 64**