



EFFECTIVE DIAGNOSIS
AND MANAGEMENT OF

IBS

Improving Care Practices
and Patient Outcomes

eCase Challenge #1

Provided by:



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Produced by:



Moderator: Carol Antequera, PA-C

Participant: Mikhail Alper, PA-C

CAROL ANTEQUERA, PA-C: Hello, and welcome to this case-based CME activity, "Effective Diagnosis and Management of IBS: Improving Care Practices and Patient Outcomes." I am Carol Antequera, and I am a PA in the Department of Gastroenterology at the University of Miami in South Florida. Joining me today is Mikhail Alper, a PA from California Gastroenterology in Fresno, California.

Many thanks to you for your involvement in this important continuing medical education activity, which consists of two video *eCase Challenges*. So, let's get started with our first case.

Our first *eCase Challenge* is a patient we will call Greg. Greg is a 25-year-old man who presents to his primary care PA due to persistent diarrhea. He traveled to Guatemala 6 months ago, where he contracted traveler's diarrhea with fever and vomiting that improved with antibiotics.

However, since 2 weeks after his symptoms resolved, he is having episodes of diarrhea and abdominal pain 3 to 4 times per week that are relieved with defecation. He has attempted eliminating different foods to see if this helps, but nothing has helped. He has also been taking loperamide daily without relief.

Review of systems reveals that Greg has not had a fever in the past 6 months, and his appetite has been normal. He does not have blood in his stools, bowel movements awakening him at night, or any weight loss.

Before the episode of traveler's diarrhea, Greg had no issues with abdominal pain or abnormal bowel movements.

Greg states that he has no significant past medical history, and he has not had any past surgeries. There is no family history of colon cancer or inflammatory bowel disease. He lives alone and recently graduated from business school. His physical examination is unremarkable.

eCase Challenge #1 – Greg

- 25-year-old man
- Persistent diarrhea
- Travel to Guatemala 6 months ago
 - Contracted traveler's diarrhea
 - Treated with antibiotics
- Continued diarrhea and abdominal pain
 - 3-4 times/week
 - Relieved with defecation
 - Daily loperamide
- Negative ROS, medical history, family history
- Normal physical examination

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Now, let's pose our first clinical question.

Question 1

What frequency of abdominal pain would be required, on average, for Greg to meet the Rome IV diagnostic criteria for irritable bowel syndrome (IBS)?

- A. At least 1 day per week in the last 3 months
- B. At least 3 days per week in the last 6 months
- C. At least 1 day per month in the last 3 months
- D. At least 3 days per month in the last 6 months

Mikhail, do you see patients like this in your clinic often, in your practice?

MIKHAIL ALPER, PA-C: Yes, Carol, quite frequently. And I do utilize Rome IV criteria for IBS as a functional bowel disorder in which recurrent abdominal pain is associated with defecation or a change in the bowel habits. Disordered bowel habits are typically present, such as constipation, diarrhea or a mix of constipation and diarrhea, and the symptoms of abdominal bloating and distention.

The Rome IV criteria is a 2016 update from the 2003 Rome III criteria, and it's developed by a panel of functional GI disorder experts initially used for research purposes but have been revised to be clinically relevant.

Recurrent abdominal pain at least 1 day a week in the last 3 months associated with two or more of the following criteria: related to defecation; associated with a change in the frequency of stool; associated with a change in the form, appearance of the stool. These criteria should be fulfilled for the last 3 months with symptom onset at least 6 months before diagnosis.

Rome IV Criteria^{1,2}

- Recurrent abdominal pain at least **1 day/week** in the **last 3 months** associated with 2 or more of the following criteria:
 - Related to defecation
 - Associated with a change in the frequency of stool
 - Associated with a change in form/appearance of stool
 - These criteria should be fulfilled for the last 3 months with symptom onset at least 6 months before diagnosis

1. Lacy BE, et al. J Clin Med. 2017;6(11):199. Published 2017 Oct 26.
2. Mearin F, et al. Gastroenterology. 2016;S0016-5085(16)00222-5.

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Carol, I was going to ask you a question. What subtypes of the IBS do you come across in your practice?

CAROL ANTEQUERA: Yes. Thanks for that question, Mikhail. That's a really good question. I actually see very commonly patients who have constipation-predominant IBS, or what we call IBS-C, and I also see patients with diarrhea-predominant IBS, or IBS-D.

And these patients, they are categorized in these subtypes because at least 25% of the time they have either more constipation or more diarrhea. And this really kind of helps to put them into a category where we can better manage them and select a good treatment option for these patients.

Subtypes of IBS^{1,2}

- IBS should be categorized by subtype per Bristol Stool Form Scale
 - IBS-C: >25% constipation, <25% diarrhea
 - IBS-D: >25% diarrhea, <25% constipation

1. Lacy BE, et al. J Clin Med. 2017;6(11):199. Published 2017 Oct 26.
2. Delvaux DN, et al. Irritable bowel syndrome: epidemiology, pathophysiology, diagnosis, and treatment. Prim Care. 2017;44(4):655-671.

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Mikhail, in your practice, do you also see patients who have a postinfectious IBS after having a traveler's diarrhea or an infectious process?

MIKHAIL ALPER: You're absolutely correct. I do see it quite frequently, especially since I do cater to a Hispanic population that has a lot of ties to Mexico. And when they go and visit their relatives in Mexico, they come back to me complaining of postinfectious diarrheas.

And 42% of those with parasitic infection will develop IBS versus 14% with bacterial infection. Giardia is the most commonly associated parasitic infection. The most common bacterial pathogens are *Campylobacter*, *Shigella*, *E. coli*, and *Salmonella*. Estimated pooled prevalence of postinfection IBS is about 11%. It's more commonly seen in women that were exposed to antibiotics and when there is a history of anxiety or depression.

Post-Infectious IBS^{1,2}

- Can occur after bacterial, viral, or parasitic infection
 - 42% of those with a parasitic infection will develop IBS vs. 14% with a bacterial infection
 - **Giardia** is the most commonly associated parasitic infection
 - Most common bacterial pathogens are *Campylobacter*, *Shigella*, *E. coli*, and *Salmonella*
- Estimated prevalence is 11%
- More commonly seen in women, those exposed to antibiotics, and with a history of anxiety or depression

1. Lacy BE, et al. Am J Gastroenterol. 2021;116(1):17-44.
2. Sadeghi A, et al. Middle East J Dig Dis. 2019;11(2):69-75.

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In addition to the standard Rome IV criteria, supportive criteria for postinfectious IBS include infectious gastroenteritis, defined by either positive culture in a symptomatic individual; presence of at least two of the following symptoms, such as fever, vomiting, diarrhea; should not meet criteria for IBS before onset of acute illness; symptom development either immediately after resolution of acute infectious gastroenteritis or within 30 days of resolution of acute symptoms.

Post-Infectious IBS Criteria¹

- Infectious gastroenteritis
 - A positive culture in a symptomatic individual
 - Presence of at least 2 of the following acute symptoms
 - Fever
 - Vomiting
 - Diarrhea
- Should not meet criteria for IBS before illness onset
- Symptoms either immediately after acute infectious gastroenteritis or within 30 days of resolution
- May be associated with changing IBS phenotype

¹ Berumen A, et al. *Gastroenterol Clin North Am.* 2021;50(2):445-461.

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In addition to the new onset of IBS, the postinfectious IBS is also associated with change in IBS phenotype. But physiologically, postinfectious IBS may involve alteration such as resident intestinal microbiota, epithelial barrier integrity, effector cell functions and innate and adaptive immune features.

Post-Infectious IBS Pathophysiology¹

- May involve alterations in
 - Resident intestinal microbiota
 - Epithelial barrier integrity
 - Effector cell functions
 - Innate and adaptive immune features

¹ Beatty JK, et al. *World J Gastroenterol.* 2014;20(14):3976-3985.

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So, Carol, can you please tell me how often patients present in your clinic with abdominal pain and distention and bloating?

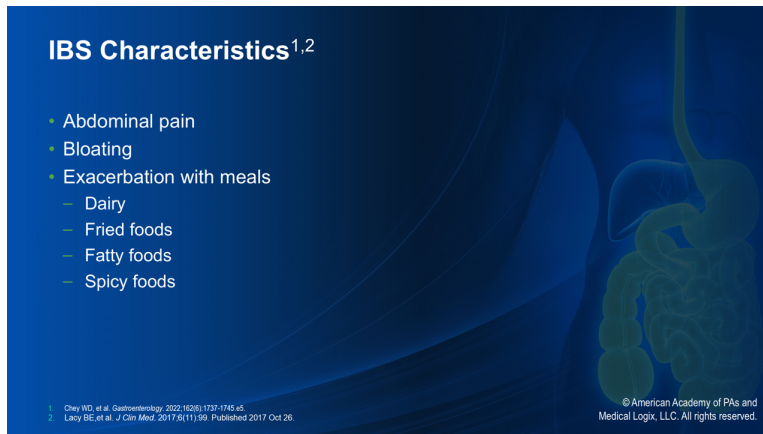
CAROL ANTEQUERA: Sure. Thanks, Mikhail. Yes. Abdominal bloating and distention are very common symptoms in patients with IBS. Although these actually are not required for the diagnosis of IBS, they are very common in these patients. These symptoms can also make patients very uncomfortable. So, it's definitely important to take these into consideration when we see our patient.

MIKHAIL ALPER: Yes, Carol, you're absolutely correct. In your practice, have you noticed that the symptoms also correlate with certain meals?

CAROL ANTEQUERA: Yes, Mikhail. Actually, very often, patients will let us know or tell us that their symptoms are very often exacerbated by meals, and especially meals with dairy, because some of these patients can also be lactose-intolerant.

But typically, they'll have symptoms of more bloating, gas, distention or even diarrhea with ingestion of dairy, fried foods, fatty foods and even spicy foods or foods that have a lot of

condiments or spices. So, oftentimes, we tell patients to really be careful with these types of foods in their diet when they have IBS.

A slide titled "IBS Characteristics^{1,2}" with a dark blue background and a faint anatomical illustration of the human digestive system. The slide lists symptoms and triggers for Irritable Bowel Syndrome (IBS).

IBS Characteristics^{1,2}

- Abdominal pain
- Bloating
- Exacerbation with meals
 - Dairy
 - Fried foods
 - Fatty foods
 - Spicy foods

1. Chey WD, et al. Gastroenterology. 2021;160(1):1737-1745.e5.
2. Lacey BE, et al. J Clin Med. 2017;6(11):199. Published 2017 Oct 26.

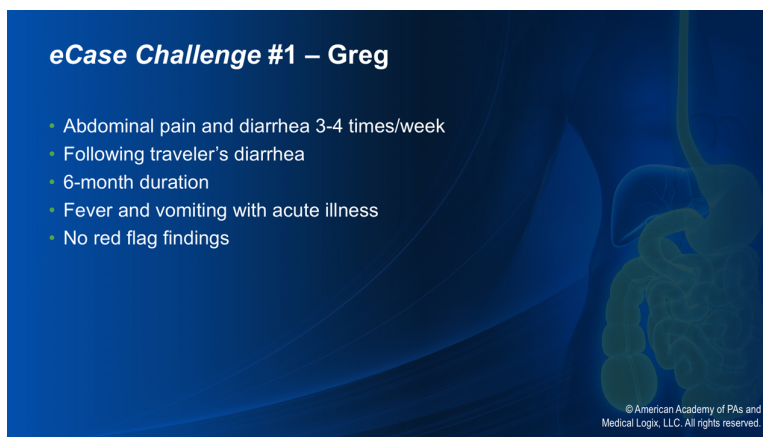
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Okay, let's review the question posed, which asked what frequency of abdominal pain would be required, on average, for Greg to meet the Rome IV diagnostic criteria for IBS. The correct answer is (A), at least 1 day a week in the last 3 months.

Let's take a few moments to review Greg's history and consider what led us to consider IBS, and specifically postinfectious IBS as a diagnosis.

We know that Greg has had abdominal pain and diarrhea three to four times per week since shortly after his traveler's diarrhea resolved 6 months ago. This time frame of 6 months of symptoms fulfills the time requirement per the Rome criteria.

In addition, we know that he had fever and vomiting with his initial diarrheal illness. Importantly, he does not have any red-flag findings, including blood in his stool, weight loss or family history of colon cancer or IBD.

A slide titled "eCase Challenge #1 – Greg" with a dark blue background and a faint anatomical illustration of the human digestive system. The slide lists key clinical findings for a patient named Greg.

eCase Challenge #1 – Greg

- Abdominal pain and diarrhea 3-4 times/week
- Following traveler's diarrhea
- 6-month duration
- Fever and vomiting with acute illness
- No red flag findings

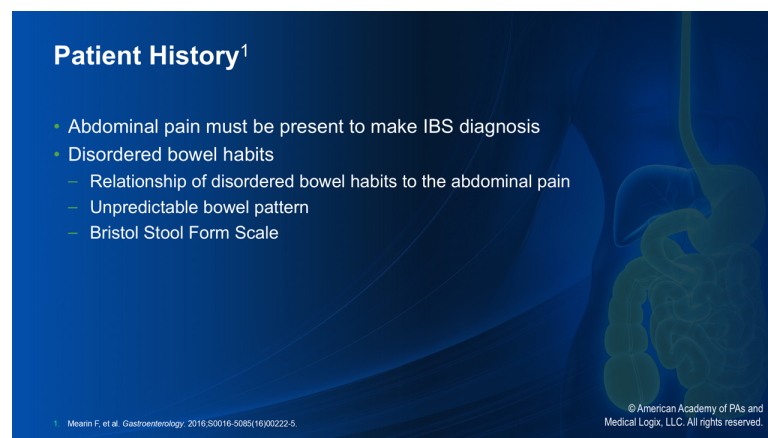
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Let's take a few moments now to review the key elements that should be listed in a patient's history when a diagnosis of IBS is being considered. Carol, can you please tell us about these findings in the IBS, the symptoms that you may see in these patients?

CAROL ANTEQUERA: Sure. Very often, patients will come in to the clinic and present with symptoms of abdominal pain, which we know, based on the Rome criteria, must be present in order to make the diagnosis of IBS.

So, many of these patients will have abdominal pain or cramping, discomfort, and then they also have disordered bowel habits, or what we call a change in their bowel habits from their baseline, which, again, is also an important factor to determine whether these patients have IBS or not. It's also important to determine whether the relationship of their disordered bowel habits are also impacted or have anything to do with their abdominal pain.

Their bowel habits will tend to be unpredictable, which is also a common symptom in patients with IBS. And then they also should let us know what type of stool they're having based on the Bristol Stool Scale Classification, and we can go over those in the clinic.

A blue slide titled "Patient History¹" with a faint anatomical illustration of the human digestive system in the background. The slide contains a bulleted list of key diagnostic criteria for IBS.

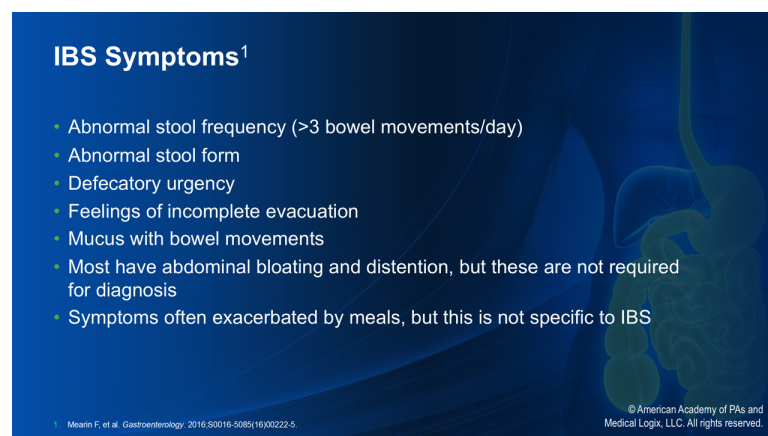
Patient History¹

- Abdominal pain must be present to make IBS diagnosis
- Disordered bowel habits
 - Relationship of disordered bowel habits to the abdominal pain
 - Unpredictable bowel pattern
 - Bristol Stool Form Scale

¹ Meirini F, et al. Gastroenterology. 2016;S0016-5085(16)00222-5. © American Academy of PAs and Medical Logix, LLC. All rights reserved.

Other common symptoms to consider in these patients are abnormal stool frequency, or having more than three bowel movements per day. They can have an abnormal stool form, like very thin or pencil-like stools. They can also have some defecatory urgency, feelings of incomplete evacuation, and also see mucus in their stools.

Many patients who have IBS may also experience symptoms of abdominal bloating and distention, but these are not requirements for the diagnosis of IBS based on the Rome IV criteria. Patients can also mention that their symptoms are exacerbated by meals, but again, this is not specific for IBS.

A blue slide titled "IBS Symptoms¹" with a faint anatomical illustration of the human digestive system in the background. The slide contains a bulleted list of common symptoms associated with IBS.

IBS Symptoms¹

- Abnormal stool frequency (>3 bowel movements/day)
- Abnormal stool form
- Defecatory urgency
- Feelings of incomplete evacuation
- Mucus with bowel movements
- Most have abdominal bloating and distention, but these are not required for diagnosis
- Symptoms often exacerbated by meals, but this is not specific to IBS

¹ Meirini F, et al. Gastroenterology. 2016;S0016-5085(16)00222-5. © American Academy of PAs and Medical Logix, LLC. All rights reserved.

So, based on Greg's symptoms, it seems like he may have a postinfectious IBS. Before we discuss this case further, we have a new clinical question.

Question 2

Which of the following diagnostic studies is indicated for Greg?

- A. Abdominal x-ray
- B. Celiac panel
- C. Ferritin
- D. Thyroid-stimulating hormone (TSH)

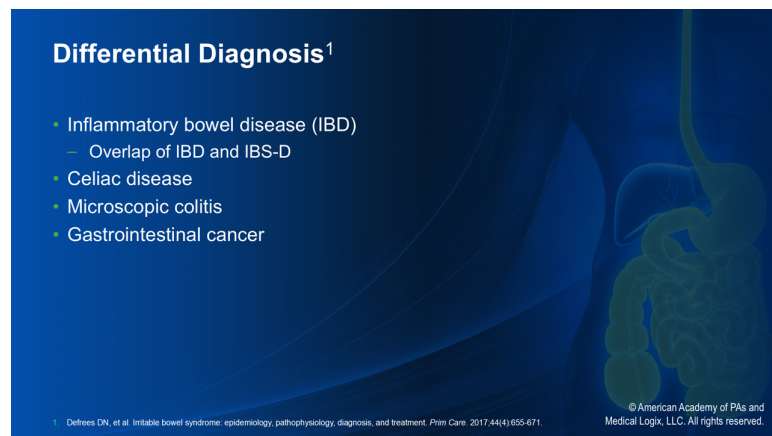
Mikhail, in your practice, when you're considering a patient with a possible diagnosis of IBS, what diagnostic study do you typically order?

MIKHAIL ALPER: Very good question, Carol. And you're absolutely correct, we have to do differential diagnosis in terms of their, if the patient has really IBS, or maybe there's something else, right?

In your consideration, you have to think about inflammatory bowel disease, as well, right? And since symptoms overlap in IBD and IBS-D, more than one-third of the patients with IBD fulfill the Rome criteria for IBS.

Celiac disease is another presentation that is highly variable, right? Overlapping symptoms for abdominal pain, bloating, altered bowel habits. A patient can have both celiac and IBS, actually, at the same time. Important to rule out, to avoid long-term effects, right?

The other possibility of microscopic colitis. It's a little bit more associated with age, more than age 50, presence of nocturnal stools, weight loss, the introduction of a new drug and the presence of a known autoimmune disorder. GI cancers could be in consideration, as well. It is important to perform age-appropriate cancer screening regardless of the presence or absence of alarm symptoms.



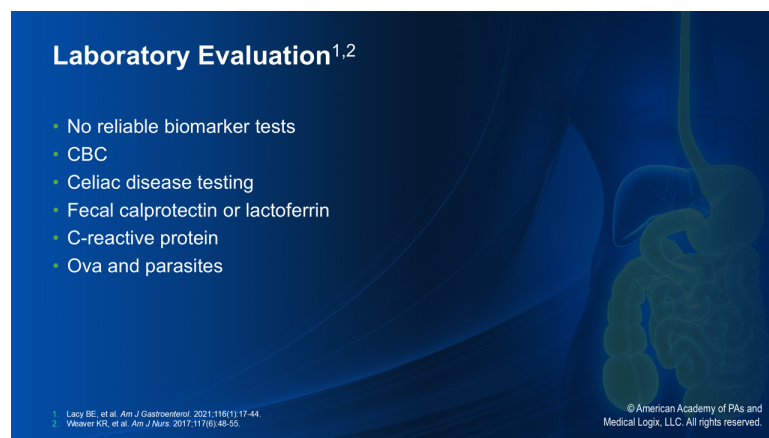
So, multiple studies have evaluated various biomarkers and their potential use in diagnosing IBS, but no reliable biomarker tests have been found to date, unfortunately.

All patients we suspect of IBS should have a CBC performed, of course, regardless of potential subtype. Patients with symptoms of IBS and diarrhea without alarm symptoms should have

serologic testing to rule out celiac disease, fecal calprotectin or fecal lactoferrin, and C-reactive protein to evaluate for possible IBD.

A CRP of less than 0.5 yields about 1-chance probability of IBD with good accuracy. CRP has the highest utility for distinguishing IBD from IBS. Routine stool testing for bacterial viruses is not recommended.

Ova and parasites testing for Giardia is recommended for patients with risk factors, such as children in child care settings, in particular the diaper-age children; close contact with people with giardiasis or people who care for those sick with giardiasis; people who drink water or use ice made from places where Giardia may live; backpackers, hikers, campers who drink unsafe water; people who swallow water while swimming in recreational water; people exposed to human feces through sexual contact; international travelers where Giardia may live.



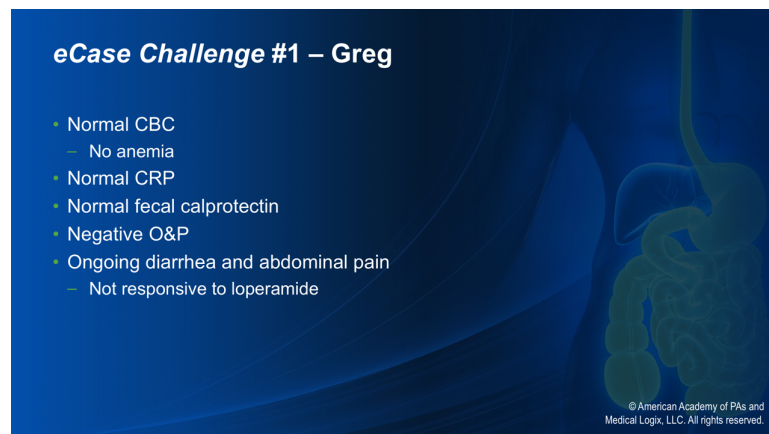
Laboratory Evaluation^{1,2}

- No reliable biomarker tests
- CBC
- Celiac disease testing
- Fecal calprotectin or lactoferrin
- C-reactive protein
- Ova and parasites

1. Lacy BE, et al. Am J Gastroenterol. 2021;116(11):17-44.
2. Weaver KR, et al. Am J Nurs. 2017;117(6):48-55.

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CAROL ANTEQUERA: Thank you, Mikhail. That's really helpful. Now, let's review the last question which asked, which of the following diagnostic studies is indicated for Greg? The correct answer is (B), a celiac panel. Along with a CBC, CRP and either a fecal calprotectin or lactoferrin, a celiac panel is recommended for patients being evaluated for IBS. Given Greg's travel to an endemic area, it would also be reasonable to obtain an ova and parasite study to evaluate for Giardia.



eCase Challenge #1 – Greg

- Normal CBC
 - No anemia
- Normal CRP
- Normal fecal calprotectin
- Negative O&P
- Ongoing diarrhea and abdominal pain
 - Not responsive to loperamide

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Now, for the next steps in our case, Greg undergoes laboratory evaluation that reveals a normal CBC without anemia, a normal CRP and normal fecal calprotectin. He has an ova and parasite

study that is also negative, and he continues to have ongoing diarrhea and abdominal pain that is not responsive to loperamide.

This brings us to our next clinical question.

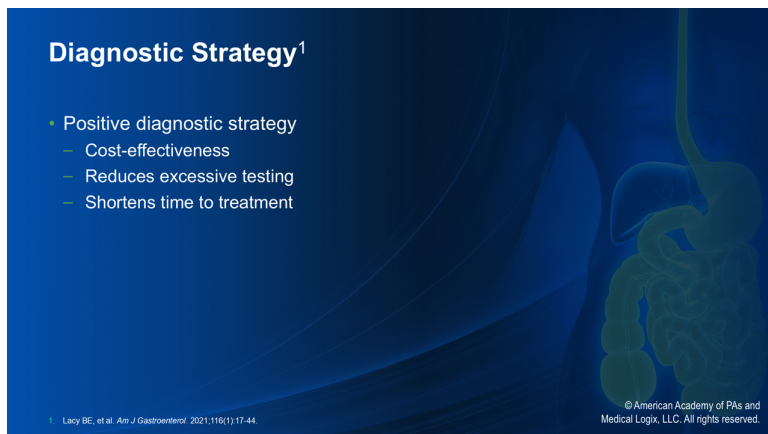
Question 3

Which of the following is the best next step in management for Greg?

- A. Order food allergy testing
- B. Prescribe pharmacotherapy
- C. Recommend probiotics
- D. Refer for colonoscopy

When you see patients like this in your clinic who you've already established have irritable bowel syndrome with diarrhea predominance and they're not responding to over-the-counter loperamide, do you often recommend pharmacotherapy or any medications for these patients?

MIKHAIL ALPER: So the American College of Gastroenterology clinical guidelines for the management of IBS recommended a positive diagnostic strategy, rather than the idea of diagnostic strategy of exclusion for patients with symptoms of IBS. It improves cost-effectiveness, low diagnostic yield of excessive testing in patients with likely IBS, and shortens duration of time before patients are prescribed appropriate therapy.



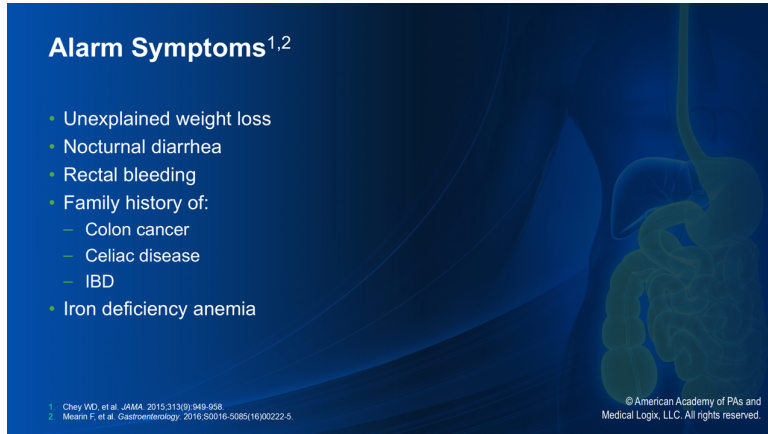
In addition to obtaining history regarding points that may confirm the diagnosis of IBS, it is also important to evaluate the presence or absence of alarm symptoms that may indicate an underlying organic disease. Carol, what are those alarm symptoms?

CAROL ANTEQUERA: So typically, patients with IBS, you will not find the alarm symptoms, but it is something to consider when you see patients in clinic. But typically, patients who have IBS, you will not see any unexplained weight loss. You will not see nocturnal diarrhea. In these patients, you will also not see any rectal bleeding.

So, if a patient comes in with rectal bleeding, nocturnal diarrhea or any unexplained weight loss or family history of colon cancer, celiac disease or inflammatory bowel disease, then these are what we would consider alarm symptoms, and further workup should probably be considered for these patients.

MIKHAIL ALPER: Carol, if the patients have unexplained iron deficiency anemia, would you also recommend them to go through the extra screening?

CAROL ANTEQUERA: Yes, good point, Mikhail. Unexplained iron deficiency anemia should certainly be further evaluated in these patients.



MIKHAIL ALPER: Thank you. So, let's review the correct answer to the clinical question which asked, which of the following is the best next step in the management for Greg? The correct answer is (B) Prescribe pharmacotherapy. If Greg were experiencing any alarm symptoms, it would be appropriate to refer him for a colonoscopy.

In addition, we already know he has a negative celiac panel and is not anemic. Based on the principles of positive diagnostic strategy, we can safely diagnose Greg with IBS-D that is most likely postinfectious. Since we know that he has been taking loperamide without relief, the next step in management is to prescribe pharmacotherapy to improve his symptoms. The probiotics and food allergy testing are not recommended for patients with IBS-D.

This brings us to the next clinical question.

Question 4

Which of the following treatments should Greg be prescribed at this time?

- A. Linaclotide
- B. Lubiprostone
- C. Plecanatide
- D. Rifaximin

Carol, what do you think about that?

CAROL ANTEQUERA: Rifaximin is certainly a great option for this patient because we know that it has been approved for the treatment of IBS with diarrhea in patients, and it can certainly be helpful for him. The other medications that are listed, such as linaclotide, lubiprostone and plecanatide, are medications that are typically given for patients who have constipation, so they would not be indicated for this patient.

According to the American College of Gastroenterology guidelines, they also recommend against treatment for IBS-D with antispasmodic, really, because those medications do not treat the global symptoms of IBS, and so they're not shown to be very helpful.

Sometimes, patients can also be prescribed bile acid sequestrants, but typically, again, the American College of Gastroenterology recommends against treating IBS-D with these types of medications. So really, rifaximin is the best option for the patient in this case.

Rifaximin is a great recommendation for this patient for the treatment of IBS-D. This medication is a non-absorbed antibiotic, and it can be used on the hypothesis that some of these patients with irritable bowel syndrome with diarrhea have an abnormal microbiome. In large-scale clinical trials, this medication showed good efficacy and safety data.

Mikhail, do you also use alosetron in your practice for patients with IBS-D?

MIKHAIL ALPER: To be honest with you, I have not used that drug in a long period of time, as well. I have some negative experience with this drug in terms of the side effect profile. It may cause pancreatitis. I had my first two patients, the experience that I had with this drug, it did cross the blood-brain barrier, and they developed severe psychosis, and I don't feel completely comfortable to prescribe this medication for IBS-D.

But I do have some patients that I did initiate on the drug, and they're doing well, and I do refill the medication for those patients.

The tricyclic antidepressants can be used, as well, such as amitriptyline, nortriptyline, imipramine and desipramine. They are believed to improve visceral pain and central pain by acting on norepinephrine and dopaminergic receptors.

It may also improve abdominal pain because of the anticholinergic effects, and at a higher dose can also slow GI transit. So, it's not good for IBS-C, but it's pretty good for IBS-D. The patient should be started on a low dose with gradual titration up.

Pharmacotherapy^{1,2}

- Rifaximin
 - FDA approved for IBS-D
 - Non-absorbed antibiotic
- ACG recommends against:
 - Antispasmodics
 - Bile acid sequestrants
- Alosetron
- Tricyclic antidepressants

1. Lembo A, et al. Gastroenterology. 2022;163(1):137-151
2. Lacy BE, et al. Am J Gastroenterol. 2021;116(1):17-44

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CAROL ANTEQUERA: Thanks, Mikhail. Yes, tricyclic antidepressants are very commonly used for patients with IBS and are very well tolerated. So, returning to our question, the best treatment choice for Greg at this time, out of those listed, is (D) rifaximin. Linaclotide, lubiprostone and plecanatide are not recommended for the treatment of IBS-D, as these are treatments for IBS-C.

Continuing our case, Greg is treated with a course of rifaximin and has some improvement in his symptoms. However, one month later, symptoms return. He is again treated with a second course of rifaximin and has some relief of his symptoms, but they return again after a month.

This brings us to our last clinical question.

Question 5

Which of the following is the best next step in management for Greg?

- A. Order gastrointestinal motility testing
- B. Referral to a dietitian
- C. Referral to gastroenterology
- D. Repeat ova and parasite studies

Mikhail, have you seen patients like this in your clinic, who get treatment with rifaximin and then have recurrent symptoms?

MIKHAIL ALPER: I do, I do. I had a few cases that a patient actually was doing perfectly fine after the initial therapy, and I have a few cases when the patient's symptoms come back in about 3 months, sometimes 6 months, and I do treat them another time. It's actually FDA approved for treatment with IBS-D up to three times in a calendar year.

The risk of missing or subsequently developing an organic disorder in patients diagnosed with IBS is very low, but this rate may be increased in those with severe symptoms. Consideration for severe refractory IBS diagnosis should be reviewed with additional testing considered if appropriate. A multidisciplinary team approach should be considered. Psychological support may be an important part of care. Iatrogenic harm from unnecessary tests or unproven treatments should be avoided.

Refractory IBS¹

- Rifaximin
 - FDA approved for treatment 3x/year
- Rates of organic disorder increased in those with severe symptoms
- Consider additional testing
- Multidisciplinary team
- Psychological support

¹ Vasand DH, et al. Gut. 2021;70(7):1214-1240.

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For patients with difficult-to-treat IBS, the treatment approach should include a therapeutic patient-clinician relationship that includes active listening. The strength of the clinician-patient relationship is of the utmost importance in the management of IBS.

This is first apparent during the diagnosis process. Many clinicians still treat IBS as a diagnosis of exclusion. Clinicians are more likely to use qualified language when presenting a patient with a diagnosis of IBS, such as maybe having a working impression.

This communication of diagnostic uncertainty can prevent patients from accepting the diagnosis and lead to seeking additional opinions testing. An ongoing supportive relationship with a clinician is necessary for disease management. Patients may be reluctant to discuss symptoms, so trust needs to be built.

Education and reassurance with the establishment of realistic expectations. Once a diagnosis is established, clinicians must reassure patients of the validity of this diagnosis. Explaining current theories in research surrounding cellular, molecular mechanism of disease as appropriate, may help patients to understand that this is a true pathology.

Further detailing of the disease subtype can reassure patients and guide treatment. Patient education is an important aspect of disease management: expectations of treatment response, lifestyle modifications, answering any patient questions.

Symptom assessment, including impact on quality of life, exacerbating and alleviating factors, targeted treatment for gut, brain, or both. And please, do not forget that you, at some point, need to refer these patients to the gastroenterologist, right, especially the patients who have atypical or alarming systems [SIC], an uncertain diagnosis, continued symptoms despite treatment by the primary care provider.

Difficult-to-Treat IBS^{1,2}

- Active listening
- Avoid qualified language
- Ongoing, supportive relationship
- Build trust
- Establish realistic expectations
- Assess quality of life
- Refer to gastroenterologist
- Provide education

1. Lindeke EC, et al. Clin Gastroenterol Hepatol. 2016;14(12):1735-1741.e1.
2. Levy BE, et al. J Clin Med. 2017;6(11):99. Published 2017 Oct 26.

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CAROL ANTEQUERA: Yes, Mikhail, this is very true. We do need to take all of these factors into account when treating patients with IBS. And one of the most important aspects of clinical care for these patients is to also develop that trust and understanding and being able to really listen to the patients, listen to their symptoms, and also understand that sometimes stress plays a factor in these patients' symptoms.

For patients with IBS, it is really important that we avoid using that qualifying language, such as, "This may be what you have," or, "I'm thinking it could possibly be IBS," because this really does give the patient the impression that they may not have IBS.

So, we really do need to be more assertive in explaining to the patients that this is what they have, this is their condition, provide education to the patient so that they can understand the condition and be more accepting of their diagnosis. So, I really do find this to be helpful.

MIKHAIL ALPER: Okay. And returning to our question, the best option for Greg at this point is option (C) referral to gastroenterology. Greg is experiencing refractory symptoms despite

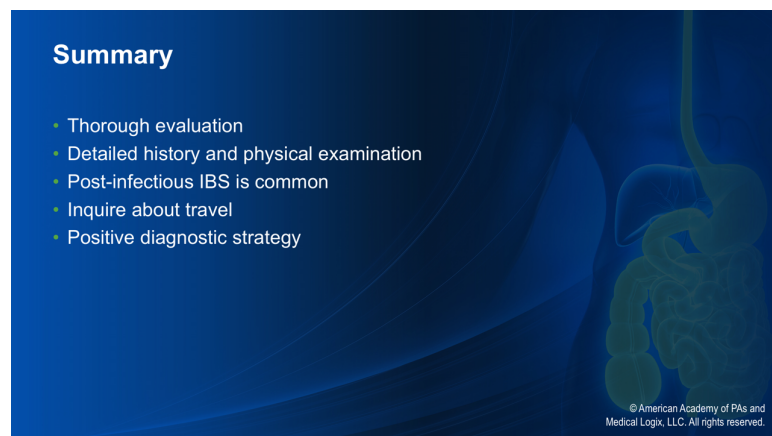
treatment, and referring him to a GI is the most appropriate next step at this point. The GIs most likely have access to a multidisciplinary team to guide Greg's care and may be able to provide a more comprehensive treatment plan to improve his ongoing symptoms.

While additional testing or input from a dietitian may be part of this ongoing care, it is best for his management to be overseen by the GI at this point. The gastroenterologist may use the approach of colonoscopy and take a biopsy during the colonoscopy to rule out the possibility of microscopic colitis, which could be the case in this particular case.

CAROL ANTEQUERA: Thanks, Mikhail. That's really helpful, and a great point to make. So, as we bring our case to a close, we should remember that a thorough evaluation is essential for patients with possible irritable bowel syndrome.

Importantly, a detailed history and physical examination are vital first steps in differentiating the many possible causes of abdominal pain and diarrhea that may present in a primary care PA's office, especially since some causes of these symptoms require more urgent workup and referral than others.

In addition, postinfectious IBS is common, and because of this, patients should always be questioned about travel and possible exposures. It is important to remember that IBS should be approached with a positive diagnostic strategy rather than a diagnosis of exclusion.



I would like to thank our expert, Mikhail, for your great insights and discussion, and I would like to thank you, our audience, for participating in this *eCase Challenge* on effective diagnosis and management of IBS.

Before leaving, we invite you to view the Clinical Pearls from this conversation.

To receive your CME credit, be sure to complete the post-test and evaluation.

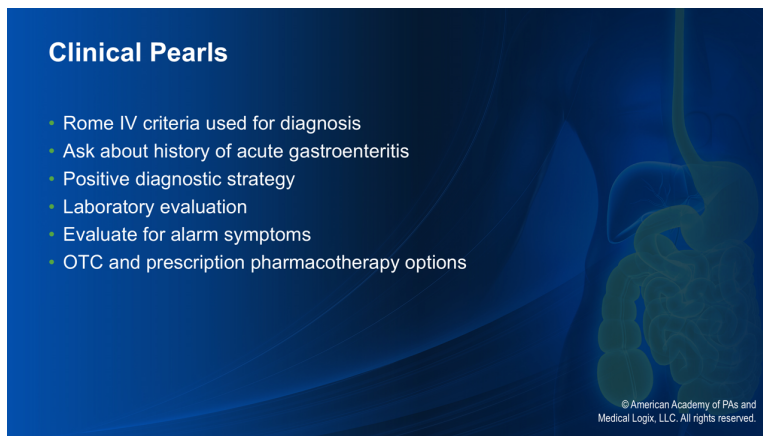
This concludes our video *eCase Challenge* #1. On behalf of Mikhail and myself, we hope that you enjoyed it. Thank you for joining us.

Clinical Pearls

Irritable bowel syndrome, or IBS, is a prevalent condition, making it a common reason for primary care visits. The Rome IV criteria, which are used to diagnose IBS, state that, in order to

qualify for diagnosis, patients should have abdominal pain on average at least 1 day per week in the last 3 months associated with two or more of the following criteria: relationship to defecation, association with a change in stool frequency or association with a change in stool form. Additionally, history of new-onset symptoms within 1 month of an episode of infectious colitis may support the diagnosis of postinfectious IBS.

The diagnostic strategy for IBS is defined by a positive approach with minimal diagnostic testing rather than one that actively excludes multiple other conditions. Recommended tests for patients suspected to have IBS-D include a CBC, CRP and fecal calprotectin or lactoferrin with or without stool studies as indicated.



It is essential to ensure that patients do not have any alarm symptoms that would indicate an alternate organic disease process and that need a more extensive workup.

There are multiple over-the-counter and prescription pharmacologic treatment options for IBS management. It is essential that clinicians are familiar with both recommended treatment options and the treatment options that are not recommended in order to provide evidence-based patient care.

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