

Irritable Bowel Syndrome

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What is Irritable Bowel Syndrome(IBS)?

- A group of functional bowel disorders
- Chronic abdominal complaints without a structural or biochemical cause
- Constitutes a major health problem with gastrointestinal (GI) symptoms
- The cause of IBS is unknown.
- Affects up to 15 ~ 20 % adults in the industrialized world
- The condition is more frequent in women.
- The most commonly used diagnostic criteria are the Rome IV criteria

Diagnosis

- In Rome IV, the clinical criteria for IBS changed to reflect the fact that patients may have abdominal pain worsen or improve with defecation and the frequency of reported abdominal was increased. There are no specific biochemical or physiologic tests diagnostic for IBS and the diagnosis should be made based on four key features: clinical history; physical examination; minimal laboratory tests; and when appropriate, colonoscopy or additional tests deemed appropriate

Rome IV diagnostic criteria for IBS subtypes

BS subtype	Bristol stool forms 1 & 2	Forms 6 & 7
IBS-C	>25%	< 25%
IBS-D	< 25%	>25%
IBS-M	>25%	>25%
IBS-U	Bowel habits cannot be accurately characterized	

IBS symptoms related to bowel habit abnormalities can only be confidently established when the patient is evaluated off medications used to treat bowel habit abnormalities. From Lacy BE, Mearin F, Chang L, Chy WD et al. Bowel Disorders. Gastroenterology 2016;150:1393-1407

Symptoms of IBS

- Abdominal discomfort and pain
- Bloating, mucous in stools, diarrhea, constipation, or alternating diarrhea and constipation
- Depression, anxiety or stress
- IBS can be subdivided into
 - Diarrhea-predominant (IBS-D)
 - Constipation-predominant (IBS-C)
 - Alternating diarrhea and constipation (IBS-M)
 - IBS - U

Subclassification of patients

- Supportive symptoms of IBS
 1. Fewer than 3 bowel movements a week
 2. More than 3 bowel movements a day
 3. Hard or lumpy stools
 4. Loose or watery stools
 5. Urgency
 6. Feeling of incomplete bowel movement
 7. Passing mucus during a bowel movement
 8. Abdominal fullness, bloating or swelling
- Diarrhea-predominant IBS (IBS-D)
 - One or more of 2, 4 or 6 and none of 1, 3 or 5
- Constipation-predominant IBS (IBS-C)
 - One or more of 1, 3 or 5 and none of 2, 4 or 6

Alarm Features Considered Potentially Relevant in the Diagnosis of Organic Disease as Opposed to IBS

History

- Blood in the stool
- Chronic diarrhea
- Family history of colon cancer, IBD, or celiac disease
- Fever
- Onset after age 50 years
- Night-time symptoms (awakening the patient from sleep)
- Progressive dysphagia
- Recurrent vomiting
- Short history of symptoms
- Travel history to locations endemic for parasitic diseases
- Weight loss

Physical Examination

- Abdominal mass
- Arthritis (active)
- Dermatitis herpetiformis or pyoderma gangrenosum
- Overt blood or mass on rectal examination
- Signs of anemia
- Signs of intestinal malabsorption
- Signs of intestinal obstruction
- Signs of thyroid dysfunction

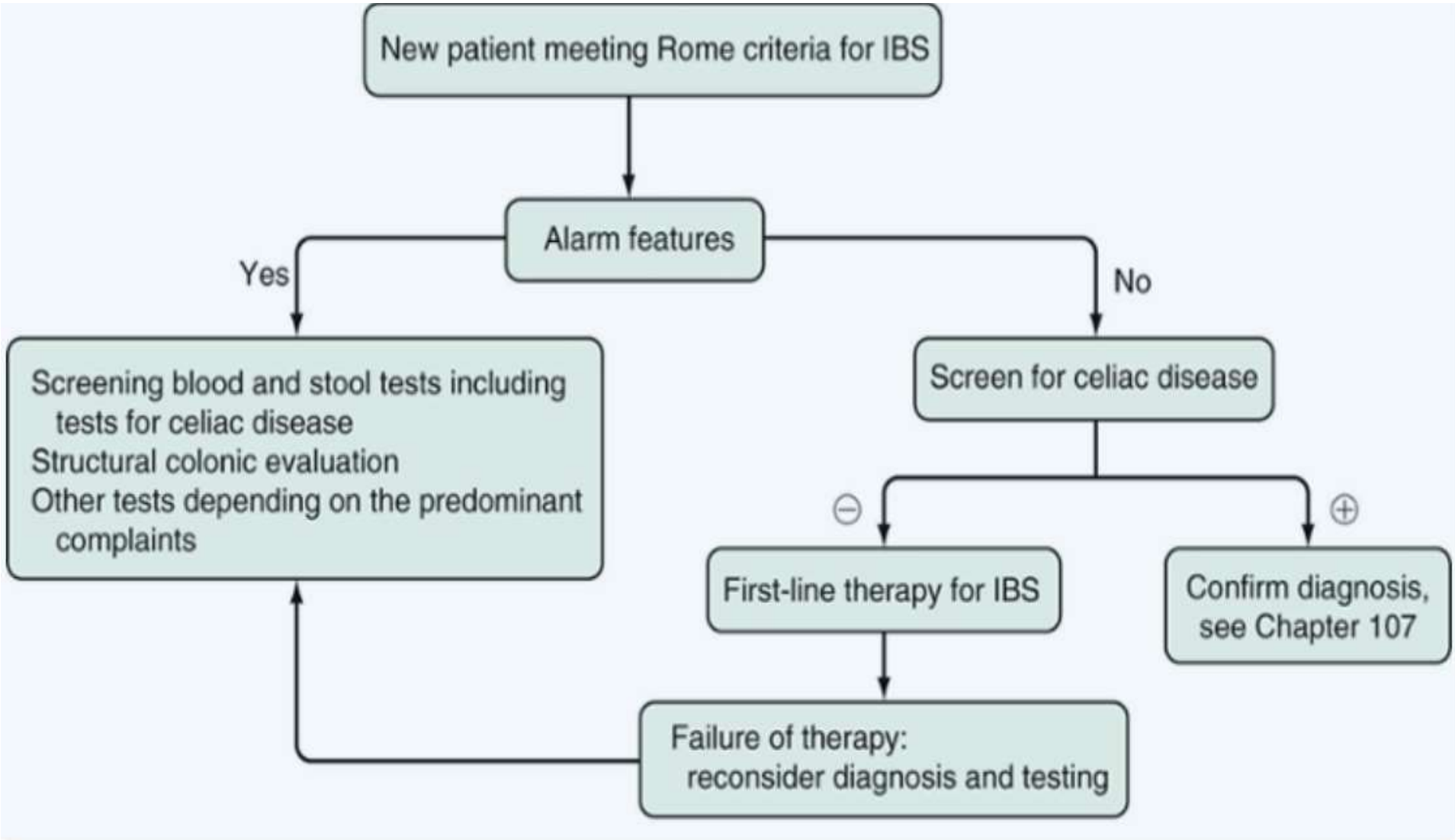
Adapted from Olden KW. Diagnosis of irritable bowel syndrome. *Gastroenterology* 2002;122:1701-14.

Diagnosis

- Patients presenting with IBS-like symptoms who also report alarm features (or “red flags”) warrant prompt investigation.

Alarm features in IBS

- Age > 50 years, male gender.
- Weight loss.
- Nocturnal symptoms.
- Family history of colon cancer.
- Anemia.
- Rectal bleeding.



Supporting diagnostic features in IBS

- Symptoms > 6months.
- Frequent consultation for non-GI problems.
- Previous medically unexplained symptoms.
- Stress worsen symptoms.

Serotonin is important in gut function

- GI disorders may be related to
 - an imbalance of serotonin in the gut
 - an improper reaction of the digestive system to serotonin
 - a faulty communication network between serotonin in the gut and the brain and spinal cord.
- Serotonin plays a major role in modulating intestinal movement and perception of pain. Helps to soften stools by releasing water.

Management

- Reassurance.
- Wheat free , Lactose exclusion & Low FODMAP diet

Resistant cases:

- Amitriptyline 10-25 mg at night.
- 5-HT4 agonist prucalopride, chloride channel activators as Lubiprostone are effective in C-IBS.
- Trial with Rifaximin , mesalazine & Ketotifen may be considered in some patients.
- For most difficult cases: Psychological intervention such as Cognitive Behavioural therapy, Relaxation & Gut-directed Hypnotherapy.
- Most patients have a relapsing & remitting course.

Management

- Pharmacologic therapy for IBS is directed at the patient's predominant complaints (i.e., abdominal pain, diarrhea, and/or constipation).
- Pain can be transiently improved with anticholinergic agents or inhibited with low-dose tricyclic antidepressants.
- Diarrhea may respond to dietary modification or use of loperamide or diphenoxylate.
- Constipation management strategies typically begin with dietary modification with the addition of osmotic, bulk-forming, or stimulant laxatives.
- There are several pharmaceutical options for treatment of IBS-C:

Lubiprostone, a type 2 chloride channel activator, stimulates intestinal fluid secretion and is approved for women over the age of 18 with constipation-predominant IBS at a dose of 8 µg twice daily.

Linaclotide, a synthetic guanylate cyclase C agonist, is efficacious for improving bowel function and reducing abdominal pain in the treatment of constipation-predominant IBS at a dose of 290 mcg once daily.

Plecanatide is a second guanylate cyclase C agonist approved by the FDA in January of 2018 for the treatment of IBS-C at a dose of 3 mg once daily.

- Management strategies for IBS-D typically begin with dietary modifications and dietary fiber supplementation.

Loperamide, a synthetic peripheral mu-opioid receptor agonist has been shown to be effective in two small studies in improvement of stool consistency, pain, urgency and overall symptoms.

Anti-spasmodics have been shown to be effective in IBS-D and this includes use of peppermint oil (an anti-spasmodic) though its use is limited by development of GERD-related symptoms including heartburn.

Probiotics have beneficial effects on global IBS symptoms compared to placebo

Alosetron, a 5-HT₃ antagonist, is effective for the treatment of diarrhea, urgency and pain; the drug is available under a restricted prescription program because of the potential association with significant side effects such as constipation and ischemic colitis.

Eluxadoline is a mixed mu-opioid receptor agonist with delta-opioid receptor antagonist activity and kappa-opioid agonist activity which targets local opioid receptors in the GI tract

Some adjunctive therapies for IBS-related pain including hypnotherapy and behavioral therapy have demonstrated beneficial effects.

Irritable Bowel Syndrome



Reassurance → Symptoms resolve



Persistent symptoms



Constipation



High roughage diet
Ispaghula
Lactulose

Pain & bloating



Spasmolytic drugs



Amitriptyline
Probiotics, Dietary changes



Hypnotherapy
Biofeedback

Diarrhea



Avoid legumes
& diet fiber



Antidiarrheal



Amitriptyline
Rifaximin 600mg/d for 2w



Thank you

Any Questions??