



Education

Éducation

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Recommendations for the management of irritable bowel syndrome in family practice

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Abstract

TO HELP FAMILY PHYSICIANS MANAGE PATIENTS with irritable bowel syndrome (IBS), a consensus conference was convened in June 1997 at which 5 internationally recognized experts in IBS presented position papers on selected topics previously circulated to the conference participants. Five working groups comprising family physicians, gastroenterologists and allied health care professionals from across Canada were then charged with developing recommendations for the diagnosis, patient education, psychosocial management, dietary advice and pharmacotherapy, respectively. An evidence-based approach was used where possible; otherwise, recommendations were made by consensus. The participants concluded that family physicians can make a positive diagnosis of IBS using symptom criteria. The pathophysiology is poorly understood, but motility and sensory disturbances appear to play a role. Neither psychological nor specific dietary factors cause IBS, but both can trigger symptoms. Drug therapy is not recommended for the routine treatment of IBS, but short-term trials of drug therapy may be targeted to predominant symptoms in selected patients. A step-wise, patient-centred approach to management is outlined.

Irritable bowel syndrome (IBS) occurs in about 15% of adults in Western countries,¹⁻³ but only about 30% of affected people see their primary care physician about it.⁴ Moreover, less than 30% of patients are referred to specialists,⁴ and only a fraction of referred patients are seen at academic centres, where almost all IBS research is done. Thus, much of the published literature on IBS may not be applicable to patients in primary care. Furthermore, ambiguities in defining the syndrome, lack of understanding of its pathophysiology and slow accumulation of evidence on the benefits of treatments have made IBS notoriously difficult to diagnose and treat.

Because of the selected nature of patients seen by specialists, we felt that recommendations for the management of IBS in primary care should be developed by family physicians, with advice from gastroenterologists and IBS experts. Our aim was to produce management recommendations that are practical, user-friendly and based on the best available evidence and opinion.

Consensus conference

A working committee comprised of family physicians and gastroenterologists organized a 2-day consensus conference in June 1997 under the auspices of the Queen's University Gastrointestinal Motility Education Centre, Kingston, Ont. Fifteen family physicians, 15 specialists (gastroenterologists, internists and mental health care specialists) and a dietitian participated.

The conference began with a half-day symposium at which 5 internationally rec-



ognized experts in IBS presented position papers on selected topics that had been circulated to the participants beforehand. The position papers were based on relevant articles retrieved through a MEDLINE search (1966–1997) as well as articles found in the bibliographies of published papers and review articles. After each presentation a family physician presented an interpretation of the data from the primary care perspective.

Five working groups then developed recommendations on diagnosis, patient education, psychosocial management, dietary advice and pharmacotherapy, respectively. At the end of the first day the entire group met to identify contentious issues. The working groups reconvened on the second day to consider these issues. The chairs presented their group's conclusions to all participants at a final session, where consensus was achieved on the main issues.

The recommendations were evidence-based when literature was available.⁵ All consensus participants approved the final draft of the recommendations (Appendix 1) and this supporting article. Furthermore, 10 family physicians who were not involved in the conference used a draft of the recommendations in their practice over 2 months; their feedback was used to revise the final document.

Diagnosis

The diagnosis of IBS should be one that is based on positive findings rather than a diagnosis made after extensive investigation to exclude other disorders. Because there is no physiologic marker for the disease, symptom criteria have been developed to encourage diagnosis through history taking and to standardize patients entered into clinical trials.

The first symptom criteria developed were the Manning criteria (Appendix 1).⁶ These 6 criteria have been widely used in epidemiological, clinical and psychological studies^{3,7–11} and have been validated through factor analysis, a statistical technique that identifies clustering.^{12,13} For diagnostic purposes, the 3 pain criteria and that of abdominal distention are more consistent than the symptoms of mucus in stools and the feeling of incomplete evacuation. Abdominal distention is less common in men.^{14,15} The greater the number of symptoms, the more likely the diagnosis of IBS.^{6,16} The presence of 3 or more criteria discriminates IBS from organic gastrointestinal disease, with a sensitivity of 58%–81% and a specificity of 67%–87%.^{13,15,17,18} These data apply only to the symptom criteria per se and do not consider commonly used “red flags” in excluding organic disease. The addition of red flags (Appendix 1) to symptom criteria seems to enhance diagnostic accuracy.¹⁹ More recently the Rome criteria were developed,²⁰ but to date they have been validated by only one study.¹⁹ The consensus group preferred the Manning criteria because they are the most extensively used and are the easiest to remember and apply.

Other helpful clues to the diagnosis of IBS are that the symptoms are chronic or recurrent,^{1,21–23} the pain is variable

in location and timing, diarrhea and constipation may alternate,²¹ the onset sometimes follows infectious gastroenteritis,^{24–26} and the symptoms may be related to stress.²⁷ Findings on physical examination are usually normal, although nonspecific abdominal tenderness or a palpable, tender colon may be present.²⁸

Patients less than 50 years of age with symptoms that meet the Manning criteria and who have no red-flag symptoms require no investigations, especially if the symptoms have occurred before and are related to stress. A complete blood count is reassuring if the hemoglobin concentration and leukocyte count are normal. Patients should be re-evaluated after a brief interval if the symptoms do not improve. If there are red-flag symptoms or atypical features, investigations should be directed appropriately. Patients 50 years of age or older with IBS symptoms of recent onset should have a colon examination. This cutoff age was chosen because of the abrupt rise in the incidence of colon cancer among patients over 50²⁹ and not because colon cancer causes IBS symptoms. Colonoscopy is the most sensitive test, but air-contrast barium enema combined with sigmoidoscopy³⁰ may be cheaper and more accessible.

Although many patients with IBS believe that they are lactose intolerant, intestinal lactase deficiency is uncommon in white people, and even those with the deficiency can tolerate small amounts of milk.³¹ In some cases a negative result of a lactose tolerance test may be necessary to avoid unnecessary exclusion of dairy products that risks calcium depletion.^{32,33} Other tests are sometimes appropriate, such as those for giardiasis when patients from endemic areas complain of bloating and loose stools. Radiography of the small bowel may also be indicated in young people with atypical symptoms or a family history of inflammatory bowel disease. No test should be ordered without a clear indication. The patient must be told the likely result so that a negative result will not dash their hopes but rather be useful as confirmation that the diagnosis of IBS is correct. Repeated testing can undermine the patient's confidence in the diagnosis.

Most cases of IBS can be managed at the primary care level. Reasons for referral are summarized in Appendix 1.

Management

Because IBS symptoms wax and wane over decades, the family physician's objective must be to assist patients in coping with the symptoms and optimizing their social functioning and quality of life. The patient-centred interview, which encourages the patient to discuss his or her function, ideas, fears and expectations in relation to the symptoms experienced,³⁴ is considered by many as the most effective approach.³⁵

The pathophysiology of IBS^{36–47} (Appendix 1) needs to be explained to the patient in an understandable fashion. It is worth stressing that IBS is common, has no known cause and is diagnosed through the pattern of symptoms rather than by specific tests. Education through the use of



brochures, videotapes and structured group sessions⁴⁸ may help but should not replace direct physician–patient communication.

Many patients with IBS believe that their symptoms are caused by food, and so they expect a dietary solution. Some exclude many foods with little evidence of improvement. Unfortunately, there is scanty scientifically valid information on the relation of diet to IBS symptoms. Principles of dietary management of IBS are summarized in Appendix 1. Fibre supplementation should benefit many patients with true constipation.⁴⁹ Some physicians advise a trial in all patients,⁵⁰ but others disagree.⁵¹ Some patients become more bloated or have an increase in other IBS symptoms while taking fibre. In these patients fibre may need to be withdrawn. On rare occasions one may try an exclusion diet for the very resistant case of diarrhea-predominant IBS. However, such diets are difficult to execute and validate and should not be attempted without suitable expertise.⁵²

In most patients with IBS seen in primary care, psychosocial issues are not of major significance. However, the physician must be aware of psychological indicators that the patient may be having difficulty coping with IBS (Appendix 1).^{27,53–58} Despite several visits and adequate explanation, a patient may fail to function optimally. In such cases further steps are required to assist in the coping process. One method of determining whether diet or life stresses, or both, aggravate IBS symptoms is to have the patient keep a symptom diary for 2 weeks. This enables him or her to reflect on possible associations and provides a first step in cognitive behaviour therapy. Patients whose symptoms do not respond to this strategy and have not revealed underlying problems may require further psychological assessment, either by the family physician or a psychiatrist or psychologist. More intensive psychological treatment such as cognitive behavioural therapy, hypnosis, relaxation therapy, dynamic (interpersonal) psychotherapy and tutoring in stress management may be appropriate in a subgroup of receptive patients.^{55,59,60} However, because of methodological flaws in most of the published literature, the efficacy of such approaches remains uncertain.⁶¹

Most patients require no drug treatment. Moreover, the prescription pad should not substitute for more important aspects of treatment such as listening, validating, educating, and identifying and reinforcing coping strategies in a long-term therapeutic alliance. There is no level I evidence⁵ that any drug is effective in alleviating IBS, although individual symptoms may respond to specific agents. Treatment trials are confounded by a placebo effect as high as 71%.⁶² Conversely, there is insufficient evidence to recommend a total ban on drug use. Regrettably, there are no reports of drug trials in primary care, nor of trials that test the benefits of medication given as needed for individual symptoms such as acute pain or bloating.

Patients with IBS who have true constipation may benefit from the use of fibre supplementation. This may be accomplished with unprocessed bran or psyllium (Appendix 1). Although stronger laxatives such as stool softeners or

osmotic agents may be required in certain patients, their routine use is unwise because they can have adverse effects and precipitate diarrhea.^{23,63}

True diarrhea in patients with IBS may be alleviated with the use of an antidiarrheal drug (Appendix 1). Loperamide is usually effective⁶⁴ but may trigger constipation. Prophylactic use of loperamide may help prevent predictable episodes of diarrhea such as those before trips and important events. Evidence for the use of other medications for diarrhea is limited. Diphenoxylate may be effective, but it crosses the blood–brain barrier and is potentially addictive.⁶⁵ Products such as kaolin, psyllium or other insoluble fibre may alleviate diarrhea.⁶⁶

Antispasmodic agents such as trimebutine, pinaverium bromide, hyoscine butyl bromide and dicyclomine can modify colonic motility and therefore may decrease severe, acute abdominal pain associated with IBS, especially if it is postprandial.³⁷ Randomized controlled trials of these agents in patients with IBS had serious methodological flaws, and perhaps this explains in part why none convincingly demonstrated a benefit of any of these agents over a placebo.⁶⁷ Nevertheless, some physicians believe that a short-term trial of one of these drugs is justified in patients with attacks of severe pain. Tricyclic antidepressants in small doses can alleviate pain in IBS,^{68,69} but they have anticholinergic side effects that may worsen constipation. Narcotic analgesics should be avoided.

No medication has been shown to alleviate abdominal bloating or distention. Decreased fibre intake and withdrawal of certain medications (notably lactulose and codeine) may help some patients. Alleviating constipation, if present, may help others.

Future directions

Although the development of diagnostic criteria has helped define IBS, clinical investigators and the pharmaceutical industry face major challenges to improve our understanding of the neurophysiology and psychopathology of IBS and to develop and validate appropriate outcome measures to assess treatment efficacy. Prospective studies are needed, particularly at the primary care level, not only to substantiate the effectiveness of treatments but also to test the validity and cost-effectiveness of different diagnostic approaches to IBS. Armed with such new information, we hope to see a significant evolution of these recommendations in the future.

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Appendix 1: Recommendations for the management of irritable bowel syndrome in primary care

Consensus of a Queen's University GI Motility Education Centre National Conference, June 1997

Recognition

An otherwise well patient presents with variable combination of chronic or recurrent abdominal pain, altered bowel habit (constipation, diarrhea or both) and bloating

Make a positive diagnosis

Use Manning criteria: abdominal pain plus 2 or more of the following:

- b pain relieved by defecation*
- b abdominal distention†
- b pain associated with looser stools *
- b feeling of incomplete evacuation
- b pain associated with more frequent stools* b mucus in stools

(* most reliable diagnostic criteria, †more useful in women)

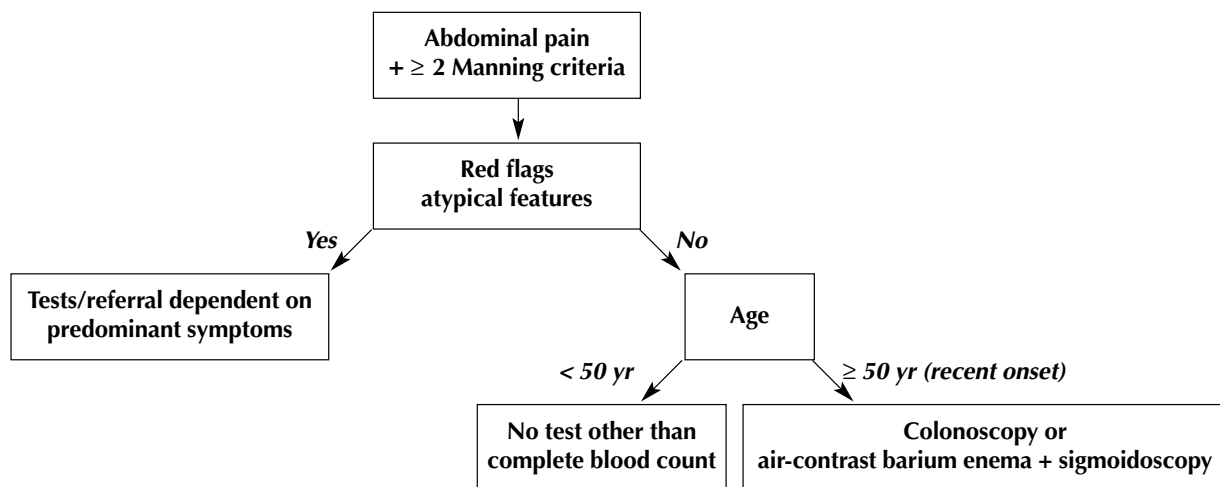
“Red flags” suggesting an alternative or co-existing diagnosis

- b weight loss; rectal bleeding; anemia; persistent diarrhea; severe constipation; fever; nocturnal symptoms; family history of gastrointestinal cancer, inflammatory bowel disease or celiac disease; new onset of symptoms in patient > 50 years old

Physical examination

- b focused physical examination important (including rectal)
- b abdominal tenderness or palpable colon may be present in irritable bowel syndrome (IBS)

Diagnostic tests – Who ? What tests?



When to refer

- b uncertainty about diagnosis or excessive patient concern that diagnosis is incorrect
- b resistant symptoms that impair patient's ability to function
- b select consultant based on underlying cause of the continuing problem; a case of failure to cope with symptoms is more likely to benefit from psychological or psychiatric interventions



Management

It is essential to make a positive diagnosis, rather than a diagnosis of exclusion, and convincingly convey this to the patient. Use a patient-centred approach and discuss patient's function, ideas, fears and expectations (FIFE)

Education/reassurance — explaining pathophysiology and natural history

- b physiological abnormalities include altered intestinal motility and visceral hypersensitivity
- b can be precipitated by previous enteric infection
- b diet has no causal role, but certain dietary items may exacerbate IBS
- b emotional stress does not cause IBS, but psychosocial factors, including previous experience and learning, may exacerbate IBS and/or contribute to the distress it causes
- b use leg muscle cramp or migraine analogy in explaining disorder to patients – validate symptoms – i.e. the symptoms are real, not imagined. Gut and brain interact to alter motility (muscle contractions) and/or increase bowel sensation
- b **a chronic, relapsing but benign, disorder**

Healthy lifestyle

- b advise patient regarding balanced diet, exercise, taking time for toilet in morning

Diet

- b identify excesses, deficiencies (e.g., fad diets)
- b recognize patient's beliefs and expectations about the role of diet
- b meal-related symptoms are aggravating but do not correlate with any intestinal damage
- b diet alone does not cause IBS, but diet modification may alleviate symptoms
- b food allergy is rare, affects other organ systems and is not part of IBS

dietary advice

- b follow Canada Food Guide;
- b limit sorbitol, caffeine, alcohol, fat; they do not cause IBS but may exacerbate symptoms
- b restrict lactose only for proven lactase deficiency
- b graduated fibre supplementation for **constipation** (see below)
- b refer selected patients to dietitian

Psychosocial issues

- b important to explore in selected patients
- b **"indicators" of difficulty coping with IBS:**
 - 1 poor insight
 - 2 unable to express emotions
 - 3 comorbid conditions
 - 4 history of physical or sexual abuse or other major life stresses
- 5 multiple somatic complaints or abnormal illness behaviour
- 6 "catastrophizing" symptoms (e.g., "First sign of pain means my day is ruined")
- 7 poor coping mechanisms
- 8 inadequate social support

A 2-week symptom diary may assist selected patients to connect diet and stress with aggravation of symptoms. Consider cognitive behavioural therapy or hypnosis and relaxation therapy in severe cases

Drug therapy

- b most patients will not require drug therapy
- b no single drug has been shown to be beneficial for the IBS symptom complex
- b *specific* IBS symptoms *may* be amenable to drug therapy – first identify predominant symptom:

Constipation

- b fibre (or fibre substitute): Try wheat bran, up to 20 g/d, as first-line therapy
Start with 15 or 30 mL of bran daily and titrate dose upward slowly – increase fluid intake
- b if fibre supplement shows no benefit (or worsens symptoms) after 4–6 wk, stop or substitute psyllium

Abdominal pain

- b avoid narcotics
- b short-term therapy with antispasmodic agents or peripheral opiate antagonists may be considered, but benefit has not been convincingly demonstrated
- b Tricyclic antidepressants (e.g., amitriptyline, 25–100 mg every night) in selected patients with continuous or frequent pain

Diarrhea

- b Loperamide, 2–4 mg up to 4 times daily as needed for diarrheal episodes
- b Prophylactic use of loperamide for predictable episodes of diarrhea (e.g., social events)

Bloating

- b no medication has been shown to be beneficial
- b bloating associated with constipation may respond to treatment of constipation
- b consider fibre reduction

Comorbid conditions

- b treat depression and anxiety if present – IBS may improve as a result



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