

# Management of patients with irritable bowel syndrome

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**ABSTRACT** Irritable bowel syndrome is a common condition in primary care and accounts for more than 30% of hospital gastroenterological outpatient consultations. It is characterised by abdominal pain and accompanied by altered bowel habit and often extra-intestinal symptoms such as tiredness and urinary frequency. A positive diagnosis can be made with confidence given the typical history and the absence of ‘alarm features’, supported by a small number of appropriate investigations. Managing patients with irritable bowel syndrome can be challenging but should be based on an empathic appreciation of the psychosocial context of their symptoms. Pharmacological treatment should be symptom-based and may include dietary manipulation, antidiarrhoeals, laxatives, tricyclic antidepressants and selective serotonin reuptake inhibitors.

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## INTRODUCTION

Irritable bowel syndrome (IBS) is a chronic, relapsing disorder characterised by abdominal pain, bloating and change in bowel habit. It is common, affecting about 15% of the adult population in the UK. Less than 25% of those affected seek medical advice from their general practitioner.

Irritable bowel syndrome is associated with significant morbidity and reductions in quality of life that are often equivalent to other gastroenterological disorders such as inflammatory bowel disease. Thus, although it is a ‘benign’ condition in physical terms, it can be associated with significant psychological distress and social disruption.

## DIAGNOSIS

Irritable bowel syndrome is not a diagnosis of exclusion and can be confidently diagnosed on the basis of characteristic symptoms and the absence of alarm features (see Table 1). Abdominal pain or discomfort is the cardinal feature, associated with a change in stool frequency and/or change in appearance of the stool. Abdominal bloating (either subjective or visible abdominal distension) is common, and IBS is also often associated with extra-intestinal symptoms (Table 2).

The presence of alarm features (Table 3) should initiate investigation for alternative diagnoses, such as malignancy, inflammatory bowel disease or infection. Similarly, painless diarrhoea should prompt a search for an alternative diagnosis.

**TABLE 1** Rome III criteria for the diagnosis of IBS\*

Recurrent abdominal pain or discomfort on at least three days per month in the last three months, associated with two or more of the following:
• Improvement with defecation
• Onset associated with a change in stool frequency
• Onset associated with a change in stool appearance

\* Symptom onset at least six months prior to the diagnosis

**TABLE 2** Common extra-intestinal features of IBS

• Nausea
• Dyspepsia
• Backache
• Urinary frequency and urgency
• Dyspareunia
• Tiredness
• Headaches

**TABLE 3** Alarm features

• Age at onset >50 years
• Short history of symptoms (less than six months)
• Weight loss
• Nocturnal symptoms
• Male sex
• Family history of colon cancer
• Anaemia
• Rectal bleeding
• Recent antibiotic or non-steroidal anti-inflammatory drug use

## HISTORY, EXAMINATION AND INVESTIGATIONS

As well as defining the core symptoms of IBS and the absence of alarm features, the history should also focus on the identification of any trigger factors associated with exacerbations. Common factors are stress, certain food groups, menstruation and drugs. In particular, non-steroidal anti-inflammatory drugs (NSAIDs) and statin therapy have been implicated in exacerbations of IBS. Psychological distress is common in patients with IBS; it is important to explore the psychosocial factors as emotional ill health and stress are known to adversely affect the outcome.

Since IBS is common, it can occur coincidentally in patients with significant organic diseases. Routine physical examination, including rectal examination, is essential and should not identify any significant abnormality. Investigations should be kept to a minimum. Current evidence suggests checking a full blood count to exclude anaemia. Controversy surrounds the role of serological testing for tissue transglutaminase (TTG) coeliac antibodies, but, given the prevalence of coeliac disease in the UK (about one in 200), testing should be considered in all IBS patients. In diarrhoea-predominant IBS, the erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), serum albumin and faecal calprotectin can be helpful to exclude inflammatory bowel disease; similarly, the serum 7-OH cholestenone can help to exclude bile salt-induced diarrhoea.

More invasive investigations such as colonoscopy have a low pick-up rate, and even 'negative' investigations have not been shown to provide significant reassurance to patients. Indeed, inappropriate investigations may promote maladaptive coping mechanisms, psychological distress and reinforce visceral hypervigilance.

## TREATMENT

### Approach to the IBS patient

There is a social dimension to every illness experience which determines how patients perceive, interpret and react to bodily changes. Some patients have personality traits in which the amplification of physical symptoms is a frequent characteristic, some may be responding to life events and difficulties and others may not have any apparent explanation for their symptoms. The assessment of pain is influenced by the effects of personality and mood state on the perception of pain, the patient's ability to identify and express feelings of anxiety or depression and the language and imagery used to describe symptoms. Patients are experts and need to tell their own story in their own words. If the consultation is viewed as a meeting of two experts, communication is more likely to be meaningful and effective (see Tables 4 and 5).

Treatment should follow a symptom-based approach and should be individualised for each patient. It is

**TABLE 4** Important considerations in the approach to the IBS patient

What are the possible alternative diagnoses?
How appropriate are further investigations?
Is there evidence of quantitatively abnormal gut function?
Are the symptoms or signs potentially amenable to pharmacotherapy?
Why is the patient seeking help now? (Hidden agendas?)
What is the social context of the illness?
To what extent have symptoms rendered the patient low in mood or anxious?
How does the patient perceive the illness, its cause, treatment and outlook?
What are the patient's expectations of the consultation and management?

**TABLE 5** Principles of therapy

Effective doctor–patient relationship
Patient education and reassurance
Symptom management
Stress management

important to recognise that therapeutic trials in IBS consistently show high response rates to placebo (c. 40–60%), making good quality, adequately powered trials difficult to design.

### Constipation

Although increasing dietary fibre can be an effective treatment for constipation, many patients actually experience worsening symptoms. Insoluble fibre (such as bran), in particular, is often associated with increased abdominal bloating and pain. Similarly, laxatives may not be tolerated well. Osmotic laxatives tend to provide better symptom relief than bulking agents or stimulant laxatives although trial data are lacking.

### Diarrhoea

Loperamide reduces diarrhoea in IBS and has been shown to be well tolerated but has not been shown to reduce pain or other IBS symptoms. Codeine is a potential alternative but may lead to sedation, tachyphylaxis and dependency. Some patients experience improvement with dietary exclusion of certain food groups, such as dairy products or wheat, although there is little evidence to suggest food allergies cause IBS or that such remedies should be recommended as part of the routine therapy for patients with IBS.

### Pain

Antispasmodics (mebeverine and hysocine) have limited efficacy, but tricyclic antidepressants (typically in low doses) are often helpful, although their use is limited by side effects, particularly drowsiness and constipation.

### Bloating and flatulence

Probiotics may be helpful in reducing symptoms of flatulence and bloating. However, not all probiotic cultures have similar efficacy; the current evidence suggests that *VSL3* and *Bifidobacterium infantis* may be effective. There is controversy surrounding the role of *Helicobacter pylori* (HP) eradication in IBS, with some studies suggesting symptomatic benefit following HP eradication in HP-positive patients.

### PSYCHOLOGICAL TREATMENTS

Selective serotonin reuptake inhibitor (SSRI) therapy in conventional doses has also been shown to improve quality of life, concomitant anxiety and depression and improve bowel symptoms.

In patients with refractory symptoms, psychological treatments such as hypnotherapy, relaxation training, biofeedback and cognitive behaviour therapy may be helpful in reducing abdominal pain and improving anxiety, depression and well-being.

### PATHOPHYSIOLOGY

Current evidence suggests that IBS is associated with alterations in sensory processing in the gut and central nervous system. The majority of IBS sufferers, but not all, exhibit visceral hypersensitivity with increased pain perception to gut stimuli compared with control subjects.

### FURTHER READING

- Agrawal A, Whorwell PJ. Irritable bowel syndrome: diagnosis and management. *BMJ* 2006; 332:280–3.
- Drossman DA, Corazziari E, Delvaux M et al., editors. *ROME III: The functional gastrointestinal disorders*. 3rd ed. McLean, Virginia: Degnon Associates; 2006.
- Jones J, Boorman J, Cann P et al. British Society of Gastroenterology guidelines for the management of the irritable bowel syndrome. *Gut* 2000; 47(Suppl):ii1–ii19.

Functional magnetic resonance imaging has confirmed altered central processing of nociceptive gut stimuli likely to modulate descending spinal pain pathways; this is consistent with the observation that IBS is often associated with psychological distress and stressful life events and difficulties. The roles of inflammation and immune dysregulation associated with gastrointestinal tract infection, small bowel bacterial colonisation, food intolerance and/or food allergy remain controversial.

### KEY POINTS

- Painless alimentary symptoms should not be attributed to irritable bowel syndrome.
- Investigations should be minimised but should include clinical examination, full blood count, erythrocyte sedimentation rate, C-reactive protein and tissue transglutaminase coeliac antibodies. More invasive investigations are not warranted in the absence of 'alarm features'.
- A patient-centred approach that addresses the relevant psychosocial factors remains the cornerstone of management.
- The placebo response rate to treatment is high; dietary advice and drug therapy should be directed towards specific symptoms. In patients with refractory symptoms, stress management techniques such as cognitive behaviour therapy, hypnotherapy and relaxation therapy can be invaluable.

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