Irritable bowel syndrome: an approach for primary care physicians

Opening Vignette

Isabella, a 38-year-old lady, visits your clinic for a review. She was late for her appointment as she could not be found in the waiting room because she was using the washroom. She has come to see you because of recurrent abdominal pain for the past 6 months. The pain is relieved by defaecation and often associated with diarrhoea. She is a kindergarten teacher and has been facing more stress due to an increased workload. Her symptoms are present only in the daytime and are slightly better during school holidays.

WHAT IS IRRITABLE BOWEL SYNDROME?

Irritable bowel syndrome (IBS) is a highly prevalent, chronic and sometimes disabling gastrointestinal disorder of gut–brain interaction.[1] It is characterised by disordered defaecation and recurrent abdominal pain.[2] IBS can start after a bout of gastroenteritis or antibiotic use, though there is often no clear origin.[1] Possible triggers include stress, certain types of food and micro-organisms in the gut.[1] The Rome IV Criteria can be used to diagnose IBS [see Box 1]. The bowel pattern of the patient can be monitored using the Bristol stool chart [see Box 2].[1,2] Recent 2021 guidelines by the British Society of Gastroenterology (BSG) and the American College of Gastroenterology (ACG) emphasise the importance of primary care physicians in the initial diagnosis and management of IBS.[1,2]

HOW RELEVANT IS THIS TO MY PRACTICE?

IBS causes a significant burden to healthcare systems globally, and direct costs have been estimated at more than $1 billion in the USA.[3] In Singapore, a local survey-based cross-sectional population study in 2016 calculated the prevalence of IBS as 20.9%.[4] The symptoms experienced by patients can adversely affect their quality of life and work productivity.[3] Symptoms compatible with IBS are very common in the general population at any point in time and can be experienced on a spectrum – from transient or fluctuating, to chronic and requiring medical attention.[1] As such, it is important for primary care physicians to be able to diagnose IBS and be aware of the alarm symptoms which would require further investigation.

WHAT CAN I DO IN MY PRACTICE?

Establishing the diagnosis

Primary care physicians are often the first contact of IBS patients and can diagnose IBS using a positive diagnostic strategy rather than a diagnostic strategy of exclusion.[2,5] With careful history taking, examination and initial investigations, patients can be informed about this diagnosis early.[2] Eligible patients should also be screened for colorectal cancer in alignment with the national guidelines. An approach to a patient with IBS symptoms is shown in Box 3.

Box 1. Rome IV diagnostic criteria for IBS[2]

Recurrent abdominal pain at least 1 day/week in the past 3 months associated with ≥2 of the following criteria:
- Related to defaecation
- Associated with a change in stool frequency
- Associated with a change in stool form

Above criteria fulfilled and symptom onset at least 6 months prior to diagnosis

IBS = irritable bowel syndrome

Box 2. Bristol stool form scale[2]

Type 1: Separate hard lumps, like nuts
Type 2: Sausage-shaped but lumpy
Type 3: Sausage-shaped with cracks on the surface
Type 4: Sausage-shaped, smooth and soft
Type 5: Soft blobs with clear-cut edges
Type 6: Mushy, fluffy pieces with ragged edges
Type 7: Watery with no solid pieces

Screen for other comorbidities

IBS can also be associated with anxiety, depression and other somatoform disorders such as tension headaches.[3]

Management

In the absence of these alarm features, primary care doctors can diagnose IBS and give a trial of treatment. After diagnosis, the patient should be followed up within the next two months to review symptoms. A treatment algorithm is shown in Figure 1.[1]

Effective doctor–patient relationship

Establishing an effective clinician–patient relationship and continuity of care are critical to the management of all patients with IBS. A good doctor–patient relationship is the cornerstone of management as good rapport, empathy and support can improve patient symptoms and minimise healthcare consultations. Patients often look for information using different internet resources and may receive inaccurate or conflicting advice. They often feel their symptoms are being trivialised and find the diagnostic process perplexing and exasperating.[1] Clinicians should aim to understand the patient's ideas, concerns and expectations, so that they can address any misunderstandings the patient may have about the illness. With a strong doctor–patient relationship,

Box 3. Approach to patient with IBS symptoms[1,3,5]

Focused History Taking
- Identify symptoms of IBS
- Exclude alarm features
  - Blood in the stools
  - Unintended weight loss
  - Anaemia
  - Nocturnal symptoms
  - Fever
  - Abdominal mass
  - Ascites
  - Family history of colorectal cancer
  - Age of onset more than 50 years old

Examination
- Abdominal examination and digital rectal examination

Baseline Investigations in Primary Care
- Full blood count, C-reactive protein
- ACG and BSG guidelines also advise faecal calprotectin and screening for coeliac disease. These can be considered if they are available
- Local guidelines for colorectal screening should be followed

ACG = American College of Gastroenterology, BSG = British Society of Gastroenterology, IBS = irritable bowel syndrome

the patient will be more engaged in self-managing their symptoms.[1]

Diet and exercise

Patients with IBS should be advised to have regular exercise. First-line traditional dietary advice includes adopting healthy eating patterns, such as regular meals, limiting alcohol and caffeine intake, increasing dietary soluble fibre and reducing consumption of spicy and fatty foods. A diet low in fermentable oligosaccharides, disaccharides, monosaccharides and polyols (FODMAPs) may be helpful in reducing IBS symptoms.[5] Food elimination diets based on IgG antibodies and gluten-free diets are not recommended in patients with IBS.

Supplements

Soluble fibre, probiotics and peppermint oil can be useful treatments for global symptoms.[1]

Pharmacological management

First-line medications for IBS are mainly targeted at the patient's symptoms. For those with predominant symptoms of diarrhoea, loperamide can be used, but the dose needs to be titrated carefully.[1] Antispasmodics can also help global symptoms and abdominal pain. Laxatives such as polyethylene glycol can be useful in constipation.[1]

Second-line medications for global symptoms and abdominal pain include tricyclic antidepressants (TCAs) and selective serotonin reuptake inhibitors (SSRIs).[1,5]

Psychotherapy

Cognitive behavioural therapy, relaxation therapy, hypnotherapy and dynamic psychotherapy can also be helpful in reducing symptoms.[3]

WHEN SHOULD I REFER TO A SPECIALIST?

When patients initially present with IBS symptoms, it is vital to screen for alarm features (see Box 2). The presence of any alarm feature could indicate underlying disease and warrants referral for further investigation. Patients should also be referred for specialist review if there are severe symptoms, symptoms refractory to first-line treatment or where there is diagnostic doubt of IBS.[1]

Take Home Messages

1. IBS is a common chronic illness of disordered defaecation and abdominal pain.
2. Diagnosis of IBS can be made in primary care using a positive diagnostic strategy and the Rome IV diagnostic criteria.
3. The alarm features which would require further investigation include blood in the stools, unintended weight loss, anaemia, nocturnal symptoms, fever, abdominal mass, ascites, family history of colorectal cancer and age >50 years at the onset of symptoms.
4. Investigations that can be carried out in primary care include full blood count and C-reactive protein.
5. Patients with no alarm features should also be screened for colorectal cancer according to the national guidelines.
6. Indications for referral to a gastrointestinal specialist include presence of any alarm symptoms, severe symptoms, symptoms refractory to first-line treatment of patients or where there is diagnostic doubt of IBS.
7. Treatment of IBS includes lifestyle modifications (diet and exercise) and pharmacological treatment. There are also supplements like peppermint oil and probiotics which can be helpful.
8. Pharmacological treatment mainly involves symptomatic treatment. First-line medications including loperamide, antispasmodics and polythene glycol can be used. Second-line medications that can be given include TCAs and SSRIs.
9. Having a good doctor–patient relationship is important in the management of IBS, and primary care physicians can play a vital role.

Closing Vignette

You explain to Isabella about the likely diagnosis of IBS and perform blood tests, which turn out to be normal. You advise her on doing regular exercise and having a low FODMAP diet. You also teach her some relaxation techniques to cope with her stress. On follow-up a month later, her symptoms remain well controlled.

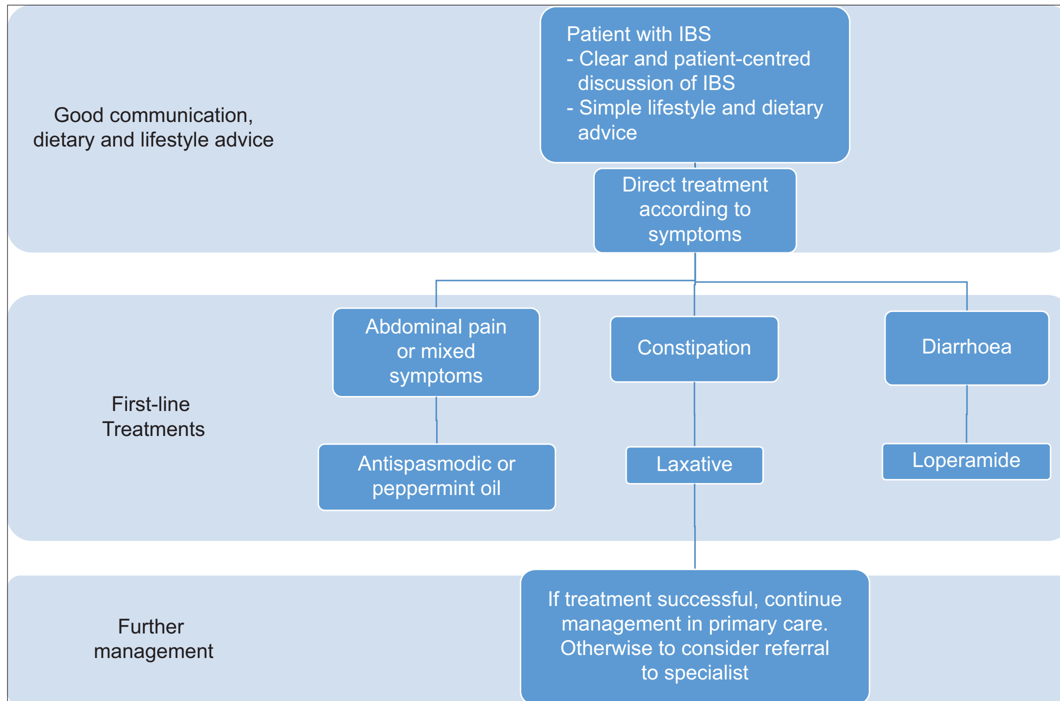

Figure 1: Treatment algorithm for irritable bowel syndrome (IBS)[1]

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Conflicts of interest

There are no conflicts of interest.

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SMC CATEGORY 3B CME PROGRAMME

Online Quiz: https://www.sma.org.sg/cme-programme

Question	True	False
1. Irritable bowel syndrome (IBS) is a disorder of the gut–brain axis.		
2. IBS is a very rare disease in Singapore.		
3. Infections and antibiotic use may trigger IBS.		
4. IBS cannot be managed by primary care physicians.		
5. Primary care physicians play an important role in the initial diagnosis and investigation of IBS.		
6. A patient can only be diagnosed with IBS after referral to specialists for further investigations as it is a diagnosis of exclusion.		
7. The Rome IV criteria can be used in the diagnosis of IBS.		
8. Abdominal examination is unnecessary to diagnose IBS.		
9. Presence of newonset anaemia warrants further evaluation in a patient with known IBS.		
10. Referral to specialist is indicated when there is diagnostic doubt of IBS.		
11. If a patient with IBS symptoms has alarm features like blood in the stools or unintended weight loss, a referral should be made to the specialist for further investigation.		
12. All patients with IBSlike symptoms require colonoscopy to confirm diagnosis.		
13. Patients with symptoms consistent with IBS should be screened for colorectal cancer according to the national guidelines.		
14. IBS is associated with tension headaches and psychological conditions like anxiety.		
15. Providing a confident diagnosis of IBS, addressing concerns and building rapport help patients to selfmanage their symptoms.		
16. A high FODMAP diet is encouraged in IBS patients.		
17. Pharmacological management is necessary for all IBS patients.		
18. Firstline medications for IBS are mainly targeted at the patient's symptoms.		
19. If a patient diagnosed with IBS has symptoms which are refractory to firstline treatment, management can be continued in primary care.		
20. Regular exercise is useful for patients with IBS.		