

Module 7

Summary Factsheet

Evidence suggests that 20–40% of patients with IBS will achieve inadequate IBS symptom relief on the diet[35]. Dietitians should assess symptom response after 2–6 weeks on a low FODMAP diet to identify these patients.

1. Troubleshooting checklist

The following checklist (page 2) may be used to identify possible causes of ongoing symptoms in patients who have responded poorly to a low FODMAP diet.

TROUBLESHOOTING CHECKLIST FOR THE LOW FODMAP DIET	YES	NO
DIETARY COMPLIANCE		
Do you suspect or does the patient report poor compliance with the dietary restrictions?		
Was poor compliance evident in the dietary recall, such as large serving sizes or consumption of high FODMAP ingredients in packaged / processed foods?		
DOES THE PATIENT HAVE ANY RED FLAGS?		
Family history of coeliac disease, IBD, bowel cancer?		
Abnormal blood test results? Consider: • Iron studies • B12 • Folate • Coeliac serology • Coeliac gene testing		
Unexplained weight loss		
Fevers		
Blood in the stool		
Nocturnal bowel motions		
Persistent / severe symptoms		
ARE THERAPIES TARGETING PREDOMINANT SYMPTOMS?		
Consider targeted therapies for: • Pain • Bloating / distention • Constipation • Diarrhoea		
COULD MEDICATIONS BE AGGRAVATING SYMPTOMS?		
Anti-diarrhoeal agents or laxatives		
Supplements (e.g. magnesium and iron)		
Antibiotics		
Pain relief (e.g. codeine)		
Metformin		
Other medications with gastrointestinal side-effects		
ARE OTHER INVESTIGATIONS NEEDED?		
Blood tests		
Gastroscopy		
Colonoscopy		
CT Scan		
X-Ray		
DOES THE PATIENT REQUIRE REFERRAL ELSEWHERE?		
Gastroenterologist		
GP		
Other health professionals e.g. psychology / gut directed hypnotherapy		

2. The role of dietitians in managing IBS

In clinical practice, many patients self-diagnose their IBS, and follow a FODMAP diet without dietetic supervision. This trend may be due to:

- The abundance of media platforms claiming expertise in the FODMAP diet
- The lack of referrals to dietitians due to poor awareness of a dietitian's role in managing IBS
- High out-of-pocket costs for dietetic appointments due to limited insurance coverage of dietetic services
- Long wait times and strict criteria to see dietitians in publicly funded dietetic outpatient services

2.1 Benefits of seeing a dietitian

Research and clinical guidelines now recommend following a FODMAP diet under the guidance of a dietitian with expertise in this area [1-3]. Dietitians can also add value to this diet by:

- Refer on to other health care providers - Dietitians can refer patients with undiagnosed IBS back to their doctor for necessary investigations and a diagnosis. They can also screen for red flags, and identify other non-dietary triggers (e.g. stress), before referring patients on to other treatments
- Assess for other dietary triggers - E.g. fat, caffeine and alcohol.
- Ensure a flexible and tailored approach to the diet by:
 - adjusting the degree of restriction depending on symptom severity
 - accommodating for other nutritional needs (e.g. undernutrition, coeliac disease); and
 - adjusting the diet depending on cooking skills, lifestyle choices
- Design a long-term diet - A dietitian can guide patients through phases 2 and 3 of the diet, so that:
 - specific dietary triggers are systematically identified; and
 - a minimally restrictive diet can be followed long-term
- Yield higher efficacy of the diet - one study showed that compliance with the FODMAP diet, particularly in phases 2 and 3, was higher under the guidance of a dietitian.
- Ensure nutritional adequacy - A low FODMAP diet can compromise intake of some nutrients, so a dietitian can tailor the diet to meet the nutritional requirements of each patient [4].

3. Compliance

If patients respond poorly to a low FODMAP diet, dietitians should assess their compliance with the dietary restrictions. This can help to distinguish between patients whose symptoms are not sensitive to FODMAPs (non-responders) and patients who may simply have not sufficiently restricted their FODMAP intake, leading to sub-optimal symptom response.

Some patients may find the dietary restrictions difficult to implement if they:

- Consume large and infrequent meals, leading to a high FODMAP load when they do finally eat.
- Regularly eat out (meaning they are exposed to larger serving sizes and limited low FODMAP options).
- Rely heavily on processed foods that contain high FODMAP ingredients (e.g. agave syrup, inulin, chicory root, apple / pear juice concentrate, xylitol, isomalt, erythritol or fructooligosaccharides (FOS).
- Have limited cooking skills (making recipe modification difficult).
- Have limited control over cooking and shopping at home.
- Are highly sensitive to FODMAPs, meaning they must be very careful with food selection and portion size.

Taking a detailed diet history at the patient's review appointment will help to determine dietary compliance and identify possible causes of ongoing symptoms.

4. Is the pathophysiological basis for symptom genesis more conducive to other therapies?

In patients who have responded poorly to a low FODMAP diet, it may be worth considering whether the treatment was sufficiently targeted to the underlying cause of their symptoms, and whether other therapies may be added to improve treatment response.

4.1 Visceral hypersensitivity

If a patient with suspected visceral hypersensitivity has not responded well to a low FODMAP diet, consider antispasmodic agents, such as peppermint oil, mebeverine hydrochloride and hyoscine butylbromide. In patients with constipation, linaclotide has shown good response in pain and bloating. A low food chemical diet could also be considered, although there is limited evidence to support this approach.

4.2 Enhanced gut-brain communication

Patients whose symptoms are triggered by stress and anxiety may have enhanced communication between their brain and gut. If patients have not responded well to a low FODMAP diet and enhanced gut-brain communication is suspected, consider cognitive behavioural therapy and gut-directed hypnotherapy.

4.3 Altered motility

Patients with fast colonic transit will typically (but not always) present with long-standing diarrhoea. Other therapies that may be considered in these patients include:

- A more targeted reduction of osmotically active FODMAPs (mono- and disaccharides such as fructose and polyols)
- Fibre supplements with gel forming properties (such as psyllium) - see figure 1

Patients with slow or uncoordinated colonic transit will typically (but not always) present with constipation. Other therapies that may be considered in these patients include:

- Supplementation with soluble fibre such as psyllium or linseeds
- Non-fermentable, osmotic laxatives such as polyethylene glycol and magnesium sulfate
- Increased exercise, adequate fluid and caffeine intake

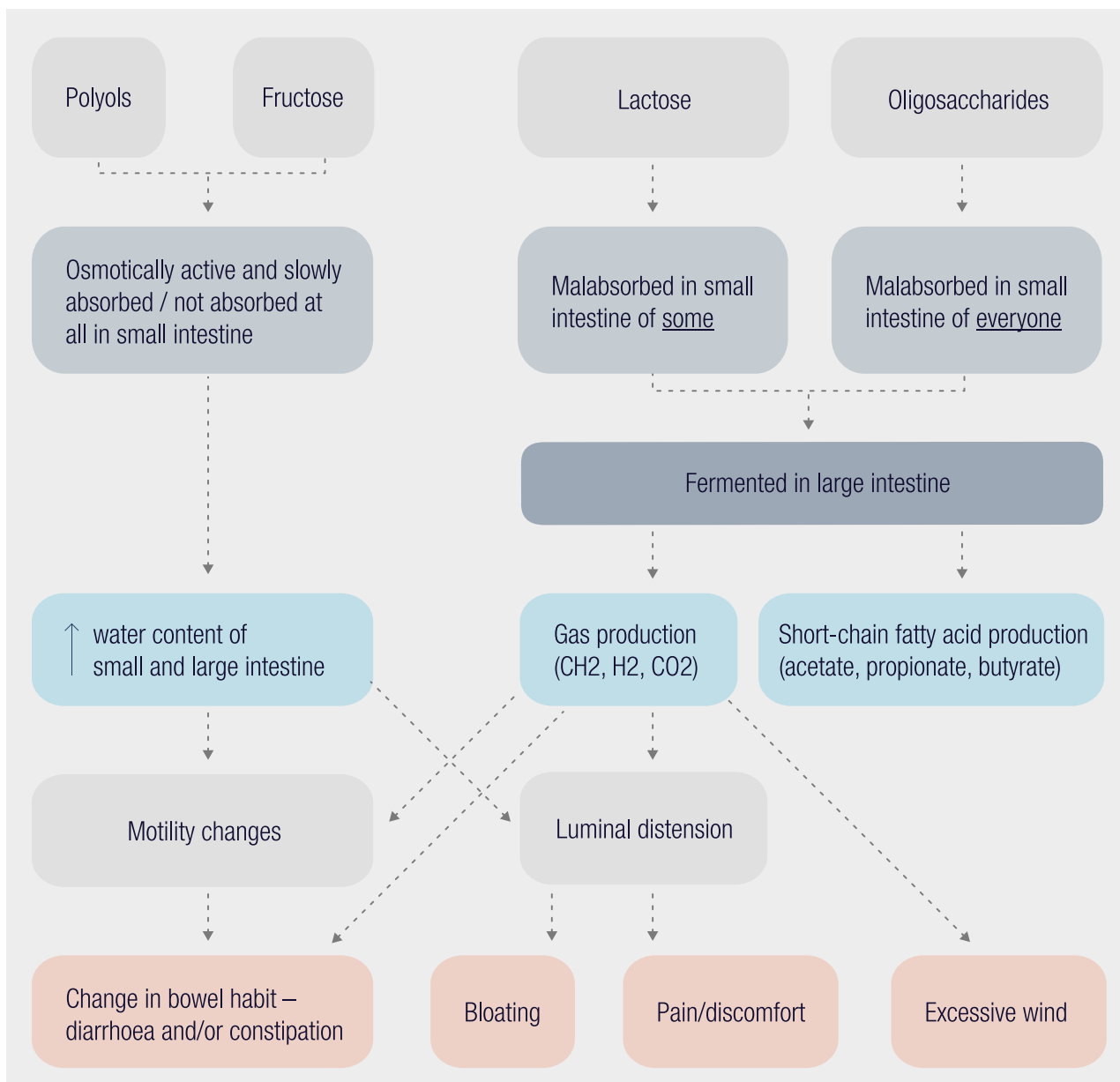


Figure 1: Action of different fodmap subgroups in the gut

4.4 Altered microbiome.

If IBS symptoms are thought to be related to intestinal dysbiosis, consider:

- Antibiotic therapy with Rifaximin
 - Probiotic therapy with Bifidobacteria
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5. Was food eaten out / while travelling a problem?

- Check if meals eaten out were low in FODMAPs
 - Check whether travel plans affected compliance with the dietary restrictions.
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6. Could other dietary triggers be at play?

If a patient has experienced limited improvement in IBS symptoms on a low FODMAP diet, the role of other dietary triggers should be considered[5,6]

- Inadequate fluid intake[5]
 - Dietary fibre
 - Fat
 - Gluten
 - Caffeine[5]
 - Alcohol
 - Spicy foods
 - Dairy
 - Food chemicals
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7. Considering predominant symptoms

Predominant symptoms should guide treatment choice in IBS. In many patients, this will be an altered bowel habit - constipation, diarrhoea or a mixture of both. However, some patients may consider that their predominant, or most bothersome symptom is abdominal pain, bloating and/or distension. Considering predominant symptoms will help to ensure that treatments are targeted and symptom response is optimised. Patients may require a referral on to access other therapies.

7.1 Abdominal pain

While a low FODMAP diet is helpful in managing abdominal pain in IBS, other therapies may also be helpful, such as:

- Psychological therapies (such as gut directed hypnotherapy)
- Herbal remedies (such as peppermint oil)
- Over the counter medications (such as probiotics)
- Prescription medications (e.g. antispasmodics, antidepressants, prosecretory agents, serotonin agents)

The most appropriate treatment will depend on the cause of the abdominal pain.

7.2 Bloating and/or distension

While a low FODMAP diet is effective in managing symptoms of bloating and distension in IBS, other therapies may also be needed, such as:

- Probiotics
- Exercise[7,8]
- Prescription medications (e.g. pro-secretory agents, prokinetics agents[9], antibiotics e.g. non-absorbable ones)

7.3 Constipation predominant IBS (IBS-C)

Check factors / causes that may worsen constipation e.g.

- Some medications (e.g. codeine for pain relief)[10]
- Some nutritional supplements (e.g. iron supplements)[10]

Strategies that may improve constipation in IBS include:

- Reintroducing osmotically active FODMAPs (excess fructose and sugar polyols) early in Phases 2 and 3.
- Ensuring adequate fibre intake – using high in fibre, low FODMAP foods and/or minimally fermentable fibre supplements (such as sterculia or methylcellulose)[11]
- Ensuing adequate, but not excessive hydration
- Including light to moderate exercise (as per national recommendations)[12,13]
- Considering caffeine – anecdotal evidence suggests this may promote defecation
- Consider laxatives – try non-fermentable osmotic laxatives (such as PEG and magnesium sulfate - Epsom salts) instead of fermentable osmotic laxatives (such as prune juice and lactulose)
- Consider medications (e.g. linaclotide, lubiprostone, prokinetic agents, antispasmodic agents, antidepressants - SSRIs)[14-19]

7.4 Diarrhoea predominant IBS (IBS-D)

While a low FODMAP diet can help to relieve diarrhoea in IBS, in some patients, other therapies may also be needed. Therapies that may be considered include:

- A more targeted reduction of osmotically active FODMAPs (mono- and disaccharides such as fructose and polyols)
 - Fibre supplements - viscous, soluble fibres with good water holding / gel-forming properties (such as psyllium, oats / oat bran, methylcellulose or calcium polycarbophil) may promote more solid or semi-solid stools[20-22]. Increase intake slowly.
 - Probiotics – some evidence to suggest *Bifidobacterium infantis* 1×10⁸ is helpful[23]
 - Medications – Loperamide[24-26], antibiotics (Rifaximin)[27,28], serotonin agents (alosetron and ondansetron)[29,30], antidepressants (TCAs)[31,32], bile salt sequestrants[33](if bile acid diarrhoea present) and eluxadoline[34]
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8. Could other comorbidities be present?

Consider whether other conditions (diagnosed or undiagnosed) may be contributing to ongoing gut symptoms (e.g. IBD, endometriosis, coeliac disease). See Table 1.

Table 1 - Red flags for IBD, coeliac disease and endometriosis

IBD	COELIAC DISEASE	ENDOMETRIOSIS
<ul style="list-style-type: none">• Anaemia• Blood in the stool• Weight loss• Fever	<ul style="list-style-type: none">• Family history of coeliac disease• Unintentional weight loss• Nutrient deficiency (iron, folic acid, albumin and/or calcium)• Iron deficiency anaemia• Osteopenic bone disease• Skin rash (dermatitis herpetiformis)• Autoimmune thyroid disease• Type 1 diabetes (especially in children)• Collagenous or lymphocytic colitis• Abdominal lymphoma (especially T-cell type)	<ul style="list-style-type: none">• Dyspareunia (pain on intercourse)• Menorrhagia (heavy periods)• Pain referred to the back and pelvis• Exacerbation of bowel symptoms with menstruation• Primary family member with endometriosis• Difficulty conceiving

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