

# Overview of managing irritable bowel syndrome in primary care

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## **Abstract:**

We aimed to focus on reviewing the literature on understanding and views of IBS, including the diagnose and management this challenging problem and discuss the management strategies in primary care. We conducted a detailed search through medical electronic databases' Medline/PubMed and Embase, searching studies discussing managing irritable bowel syndrome in primary care, published up to October,2017. The main challenges faced by doctors managing people with IBS today are the lack of basic analysis tests and the complex nuanced method needed for successful management. In order to simplify this procedure for day-to-day clinical practice, here we have developed simple visual devices to help navigate the key stages to reaching a favorable diagnosis of IBS and a stepwise method to patient-centred management targeted towards the most bothersome symptoms. The basic tenets of IBS medical diagnosis and management highlighted by this simplified algorithm. Effective management begins with the capability to make a confident positive medical diagnosis of IBS, along with having the ability to explain the underlying reasons in relatable terms for the patient. These steps can help establish a strong patient-physician relationship and instil patient confidence in their treating medical professional.

## Introduction:

Irritable bowel syndrome (IBS) is a practical bowel disorder that is characterised by abdominal pain, bloating and disturbed defecation [1]. IBS impacts an approximated 10-- 15% of people in Western Europe and North America [2] and 5- 10% in Asia [3].

Since no particular organic markers for IBS have been identified, medical professionals typically depend on symptom-based requirements for medical diagnosis. A number of analysis devices have been created for use in IBS including the Rome requirements, which were last changed in 2006, [4] and the Manning standards. Analysis criteria have additionally been developed for usage in primary care. The Rome requirements are the most widely approved amongst gastroenterologists and are made use of as study and analysis tools. Nonetheless, according to a recent methodical evaluation, couple of studies have validated the Rome I or Rome II criteria, [5] and no consistent differences have been observed in the sensitivity or uniqueness of the Rome I, Rome II and Manning requirements. Additionally no research studies have validated Rome III criteria, [5] and their uptake has been variable in scientific practice, possibly since they were created partially for research study purposes [5]. There is still a demand for development and recognition of diagnostic requirements in primary care technique, to attend to patients' and doctors' concerns that organic condition may be missed without endoscopy.

Treatment techniques for IBS are likewise based on the nature, type and extent of signs [2]. Although usually speaking the efficiency of medicine therapy in IBS is restricted, several treatments have been shown to be above sugar pill. These include anti-spasmodic representatives and medications acting on the 5-hydroxytryptamine receptor for diarrhoea-predominant IBS (IBS-D), soluble fiber for enhancing stool-frequency in constipation-predominant IBS (IBS-C), chloride network agonists for IBS-C and anti-depressants for chronic discomfort. Additionally, several

psychotherapeutic treatments have established performance in IBS. However, there is a requirement for additional agreement and assistance on which therapies must be used for which patients with IBS, as was done just recently for probiotics [6].

We aimed to focus on reviewing the literature on understanding and views of IBS, including the diagnose and management this challenging problem and discuss the management strategies in primary care.

### **Methodology:**

We conducted a detailed search through medical electronic databases' Medline/PubMed and Embase, searching studies discussing managing irritable bowel syndrome in primary care, published up to October,2017. English language restriction was applied to the search and we included those studies with human subjects only.

### **Discussion:**

#### **· Assessment and investigation (history/physical exam)**

Executing a battery of tests in all patients suspected of having IBS is not required as most patients <50 years old have an extremely low possibility of harbouring organic illness [8] Restricted analysis screening could play an essential function in distinguishing IBS from other gastrointestinal (GI) problems related to similar signs and symptoms (e.g. coeliac condition, inflammatory digestive tract disease (IBD), lactose intolerance, and tiny colitis) [7].For most of patients with a professional history compatible with IBS, the examinations or investigations required will differ

according to patient demographics, clinical circumstance and reported symptoms. Tests that might be performed at this phase include complete blood count (due to the fact that anaemia or a raised leukocyte count ought to call for more investigation), and C-reactive protein and faecal calprotectin in those with diarrhea to leave out IBD [7]. Routine thyroid examinations are not shown in all patients, however can be checked if scientific suspicion of thyroid disorder is high [7] Diagnostic screening for coeliac disease might be warranted in patients from locations with a high occurrence of the condition. A colonoscopy is indicated for all patients  $\geq 50$  years, with biopsies showed for patients with diarrhea or mixed bowel behaviors [7].

Checking out individual condition triggers is a vital starting factor for medical treatment in IBS [9]. A comprehensive patient history (Table 1) can be used to analyze the impact of signs on day-to-day live, to discover the patient's schedule in terms of what they intend to accomplish with treatment, and to determine any kind of precipitating aspects that could be associated with signs and symptoms [7]. These analyses must concentrate on gaining an understanding of the patient's nutritional behaviors, and on identifying whether patients are taking in foods or beverages that could mimic or exacerbate the signs and symptoms of IBS. The history should additionally recognize lifestyle elements that could be adding to symptoms and to obtain an understanding of additional comorbidities (e.g. psychological, gynaecological, urological, rheumatological) that might influence management. Comprehending how specific signs affect a patient's quality of life can additionally aid establish a more targeted management technique beyond treating the dominant disordered bowel routine.

**Table 1.** Initial patient assessments.

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| <ul style="list-style-type: none"><li>• Identify symptom triggers (e.g. diet, stress).</li><li>• Assess impact on daily life.</li><li>• Assess for psychological comorbidities.</li></ul> |
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- Assess for other physical comorbidities (e.g. gynaecological, urological).
- Explore patient's values and preferences.

#### • **Factors supporting IBS diagnosis**

What further questions have to be addressed to confirm a positive diagnosis of IBS? The pattern of abdominal discomfort or pain must be thought about in terms of the period, type, location, time of occurrence and its relationship to defecation, e.g. whether discomfort is eliminated with bowel movements [7]. Various other abdominal symptoms that are consistent with a diagnosis of IBS (yet not present in all patients) consist of bloating, distention and flatulence. The existence of other FGIDs may also sustain a diagnosis of IBS. Non-GI signs that are encouraging of an IBS diagnosis also consist of migraine headaches, interstitial cystitis and dyspareunia. Consistent lethargy is additionally typically experienced by patients [10] with IBS and it can be reassuring for patients to be informed that this is a well-recognised signs and symptom.

The nature and start of signs is additionally essential; for example, start after gastroenteritis would suggest post-infectious IBS. The start of IBS-like signs and symptoms after an acute episode of diverticulitis has additionally been observed. Stressful events in a patient's history such as residential misuse or serving in the armed force might likewise be linked to the risk of establishing IBS.

#### • **Management algorithm**

#### **Considering the key patient characteristics**

When selecting an ideal treatment technique, it is important to recognize the medical account of the patient, especially in terms of one of the most primary symptom. The pattern and intensity of the GI symptoms experienced, along with the influence of these signs on daily tasks and quality of

life, will be the key factors of the choice of management approach, in addition to patient choices (e.g. preference for non-pharmacological treatments) and therapy background (of both over the counter and prescription medicines). Mental comorbidities that could be adding to the existence or worsening of IBS symptoms must likewise be thought about.

It is furthermore important to discover the patient's objectives to evoke their individual viewpoint of their problem, and to comprehend what their expectations remain in regards to therapy success. Knowing just what patients with IBS want or anticipate from their medical care is vital in helping them to handle their symptoms, as failure to do so can result in patient frustration with care, absence of conformity with suggested therapies, and the inappropriate use of medical resources [11].

### **Educating, supporting and sharing information with the patient**

Discovering the patient's objectives likewise assists the medical professional recognize the level of knowledge the patient has regarding their condition, and subsequently permits details to be cooperated a suitable patient-specific method. Lots of medical professionals might feel awkward offering a medical diagnosis of IBS till various other feasible explanations (i.e. organic illness) for a patient's symptoms have been completely eliminated [12]. However, continued unneeded examinations could have an unfavorable impact on patient management by threatening the supreme diagnosis of IBS and the patient's self-confidence in their treating medical professional [12]. Reliable management of IBS is therefore reliant on doctors having the ability to give details and direction for the patient by calling the problem with a positive diagnosis, with a clear explanation of what they believe is causing a patient's signs and how they mean to target these factors with details management strategies [13]. Supplying patients with a written diagnosis of IBS as opposed

to just spoken confirmation can additionally encourage them to understand and appreciate their new diagnosis.

### **Creating the optimal management strategy for each individual patient**

Preferably, therapies that have been evaluated in top quality randomised controlled tests would certainly be the therapy of option for patients with IBS. The fact is that many easily available treatments for IBS are either not especially approved for the symptomatic therapy of IBS, or the evidence supporting their usage is poor. Nevertheless, doctors know with their usage and they are commonly affordable. Freshly accepted treatments have been created specifically for the treatment of numerous IBS symptoms and have been assessed in high-quality clinical trials, yet there is no straight proof suggesting that more recent representatives transcend to typical therapies, and it is really unlikely that comparative tests will ever before be carried out to examine this. First-line use of newly developed agents is consequently very unlikely in the short-term.

### **Lifestyle/dietary interventions**

Despite subtypes or predominant symptoms, for several patients, the first-line technique of lifestyle and nutritional modifications may supply relief from IBS without the demand for additional treatments [13]. These include promoting boosted exercise and encouraging healthy eating behaviors such as changing the consumption of alcohol, caffeine, fat, spicy food, and gas-producing foods [14]. Investigating the opportunity of carbohydrate malabsorption, limiting milk and milk products, and changing dietary fibre may also be taken into consideration at this stage [14]. Patients who do not react or are refractory to the above procedures could need symptom-modifying medicines or emotional treatments [13], together with more advanced nutritional treatments [14]. If suspected, functional outlet obstruction ought to be explored and dealt with.

Medicinal treatments for IBS management need to be targeted to the patient's predominant symptom, which could be their leading abnormal bowel habit, abdominal discomfort or bloating. With our boosted understanding of the pathophysiology of IBS, pharmacological agents targeting the underlying illness devices and therefore several signs of IBS related to details subtypes have likewise been established.

#### · **Pharmacological treatments**

Water-soluble fibre (e.g. psyllium) has been shown to provide total signs and symptom relief in IBS [15], while the osmotic laxative, polyethylene glycol, has been located to boost feces regularity and consistency, yet has disappointed a significant impact on abdominal pain or bloating. As the proof base for soluble fibre for management of IBS-C is as solid as that for most pharmacological treatments, it is reasonable to use these agents as a first-line technique as a result of their affordable, over the counter accessibility and beneficial tolerability account [15].

#### **Antispasmodics**

The stomach discomfort experienced by people with IBS could be a result of uneven and periodic intestinal tightenings along the length of the colon. This might result in symptoms of stomach discomfort, bloating and gas. Discomfort is most usual after a dish and could last for a number of hrs.

Antispasmodics can be separated right into 2 major classifications: antimuscarinics, and smooth muscle mass relaxants. Antimuscarinics lower intestinal motility; smooth muscular tissue depressants directly kick back intestinal tract smooth muscle. The use of antispasmodics is primarily to loosen up the smooth muscle mass of the intestine, helping to stop or ease the



excruciating cramping spasms in the intestines. They are generally taken 30 to 45 minutes prior to dishes [19].

### **Antimotility agents**

Diarrhea is associated with changes of liquid and electrolyte motion in either the small intestine or the colon. This can be because of lowered digestive absorption, modified intestinal motility, or raised digestive secretions (e.g. due to microbial enterotoxins or laxatives). Antimotility representatives are used to manage acute or chronic diarrhea or worsenings of chronic diarrhea and job by changing one or more of these systems.

Antimotility representatives for IBS can be divided right into 4 primary groups: codeine phosphate; co-phenotrope (blend of diphenoxylate hydrochloride and atropine sulphate in the mass percentages 100 components to 1 part); loperamide and morphine-containing preparations. Long term codeine usage could result in dependency. Loperamide is considered especially beneficial as it tends to enhance anal sphincter tone [20].

### **Laxatives**

Laxatives can be divided into 4 primary classifications: mass creating laxatives; energizer laxatives; faecal softeners and osmotic laxatives. Bulk-forming laxatives eliminate irregular bowel movements by raising faecal mass, which boosts peristalsis; adequate liquid intake need to be maintained to prevent intestinal obstruction. Stimulant laxatives function by enhancing digestive tract motility, yet they often trigger abdominal aches. Faecal softeners might lube the flow of feces and/or soften them. Osmotic laxatives raise the quantity of water in the huge bowel, either by drawing fluid from the body right into the bowel or by maintaining the liquid with which they were

provided. The path of administration for laxatives could be oral or anal. Laxatives can be utilized in two ways: as temporary rescue medicine or as longer-term upkeep therapy. There is no evidence that long-term laxative use damages the bowel.

### **Tricyclics and Antidepressants**

Since their introduction around fifty years earlier, antidepressants have been utilized in a range of gastrointestinal (GI) problems. In the last twenty years antidepressants have been progressively utilized in the therapy of functional GI conditions such as IBS. The occurrence of anxiousness and depressive disorders is high in patients with severe and/or intractable IBS and may be present to some extent in all IBS patients. Antidepressants appear to have an analgesic impact separate to their antidepressant impact. Functional pain disorders consisting of IBS might be efficiently dealt with by a series of therapies, including antidepressants that regulate the interactions in between the central and enteric nervous systems. Tricyclics likewise have a peripheral anticholinergic action in addition to their main analgesic and antidepressant actions [18].

Antidepressants can be divided into 3 major classes: tricyclics and associated antidepressants; selective serotonin re-uptake inhibitors (SSRIs), and monoamine oxidase inhibitors (MAOIs). There are other antidepressants that do not fit conveniently right into these groups: Duloxetine (Cymbalta); Flupentixol (Fluanxol); Mirtazapine (Zispin Soltab); Reboxetine (Edronax); Tryptophan (Optimax), and; Venlafaxine (Efexor).

### **Psychological therapies**

Ideas, feelings, and practices are suggested to be bi-directionally related to gut physiology and symptom manifestations in IBS [16]. Mental and behavioral therapies could assist patients with IBS

control and reduce their discomfort and discomfort and are viewed as ancillary to or boosting medical therapies. A variety of psychological interventions have demonstrated effectiveness in boosting IBS signs, including cognitive behavioral treatment (CBT), hypnotherapy, multicomponent psychotherapy and dynamic psychiatric therapy. CBT is the most studied form of emotional therapy and is connected with total enhancement in IBS symptoms, with excellent short-term and long-lasting efficiency [17]. In professional technique, the limited accessibility of therapists skilled in using psychological therapy to GI problems, the high expenses of delivering the therapy, and the practical troubles for patients of scheduling regular visits at a facility could limit prevalent use and recommend that these methods are reserved for later lines of therapy [17].

### **Conclusion:**

The main challenges faced by doctors managing people with IBS today are the lack of basic analysis tests and the complex nuanced method needed for successful management. In order to simplify this procedure for day-to-day clinical practice, here we have developed simple visual devices to help navigate the key stages to reaching a favorable diagnosis of IBS and a stepwise method to patient-centred management targeted towards the most bothersome symptoms. The basic tenets of IBS medical diagnosis and management highlighted by this simplified algorithm. Effective management begins with the capability to make a confident positive medical diagnosis of IBS, along with having the ability to explain the underlying reasons in relatable terms for the patient. These steps can help establish a strong patient-physician relationship and instil patient confidence in their treating medical professional. A thorough patient history can aid to identify potential nutritional and lifestyle triggers that can be modified as the initial stage of IBS management. If symptoms are not successfully managed by these procedures, pharmacological

treatments can be considered, along with psychological therapies. The optimum option of management strategy will ultimately depend on the primary symptoms, patient desires and a thorough understanding of the patient agenda in terms of their therapy requirements.

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