Enhanced Primary Care Pathway: IBS

1. Focused summary of IBS relevant to primary care

Irritable bowel syndrome is a common symptom complex characterized by **chronic abdominal pain and abnormal bowel function** in absence of organic cause. These key features of IBS can be widely variable in severity and may remit and recur, often being affected by dietary factors and various stressors. **Relief of abdominal discomfort after bowel movement** is a defining feature**.** Bowel dysfunction includes frequent bowel movements, fecal urgency and even incontinence, altered stool form (hard/lumpy or loose/watery), incomplete evacuation, straining at stool, and passage of copious mucus.

IBS is frequently associated with other gastrointestinal symptoms including bloating, flatulence, nausea, burping, early satiety, gastroesophageal reflux, and dyspepsia. Extra-intestinal symptoms also frequently occur in IBS patients including dysuria and frequent, urgent urination, widespread musculoskeletal pain, dysmenorrhea, dyspareunia, fatigue, anxiety, and depression.

Diagnostic criteria for IBS (e.g. Rome IV) were developed for uniformity of patient recruitment in clinical trials. In clinical practice, such criteria only provide a framework for assessing patients with suspected IBS; indeed these criteria alone are far better for ruling out IBS than ruling it in.

The confident diagnosis of IBS relies on presence of foundational symptoms, recognition of intestinal and extra-intestinal symptoms and psychological stressors that support the IBS diagnosis, detailed medical history and physical examination as well as judicious use of investigations to identify red flag features and exclude organic conditions that mimic IBS.

Treatment of IBS involves initial reassurance, dietary, psychological, behavioral interventions, pharmacotherapy based on dominant symptoms, and scheduled patient clinical review, reappraisal, support, and guidance.

2. Checklist to guide your in-clinic review of this patient with IBS symptoms

☐ Rome IV criteria for IBS: Recurrent **abdominal pain** ≥1 day per week in the last three months **related to defecation** or associated with **change of frequency** and/or **form (appearance) of stool**.
☐ Absence of red flag features (bleeding, anemia, weight loss, nocturnal or progressive symptoms, onset after age 50)
☐ No family history of inflammatory bowel disease, colorectal cancer, or celiac disease

3. Links to additional resources for patients

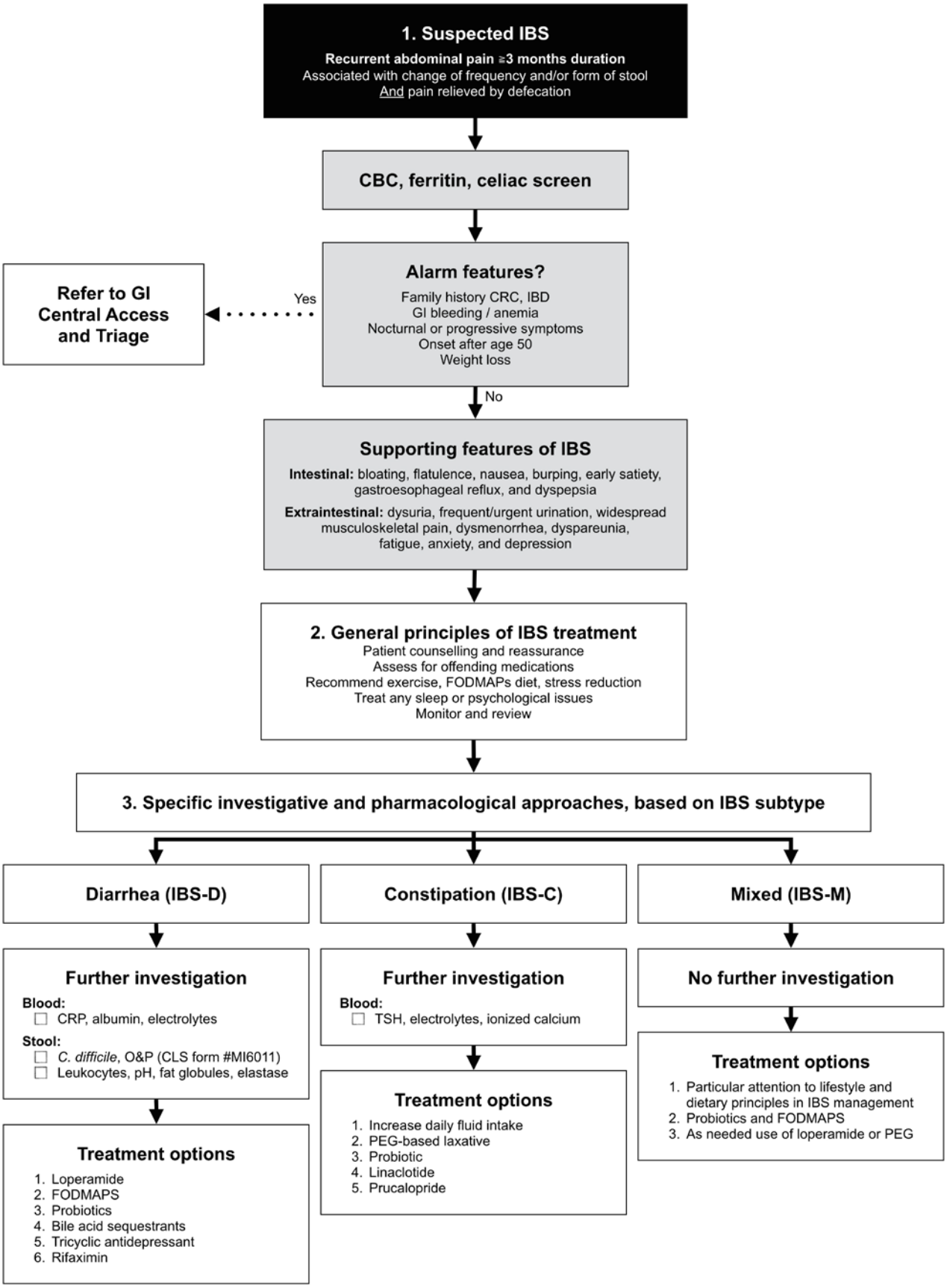
Canadian Digestive Health Foundation **Understanding Irritable Bowel Syndrome** cdhf.ca/en/disorders/details/id/12
UpToDate® – *Beyond the Basics* Patient Information about **IBS** (freely accessible) uptodate.com/contents/irritable-bowel-syndrome-beyond-the-basics?source=search_result&search=ibs&selectedTitle=2%7E150

4. Clinical flow diagram with expanded detail

This AHS Calgary Zone pathway incorporates the most current evidence-based clinical guidelines for diagnosis and management of IBS, from both Gastroenterology and Primary Care literature:

Drossman DA and Hasler WL. Rome IV—Functional GI disorders: Disorders of gut-brain interaction Gastroenterology 2016;150:1257-61 gastrojournal.org/issue/S0016-5085(15)X0019-9
Weinberg *et al.* AGA Institute Guideline on the pharmacological management of irritable bowel syndrome. Gastroenterology 2015;147:1146-8 gastrojournal.org/article/S0016-5085(14)01089-0/abstract
Kuritzky L. Individualizing Pharmacologic Management of Irritable Bowel Syndrome. J Fam Pract. 2015;64:S16-21. admin.imng.com/fileadmin/qhi/jfp/pdfs/CME_-_Hot_Topics_IBS_article_2.19.16.pdf
Wilkins *et al.* Diagnosis and management of IBS in adults. American Family Physician 2012;86:419-426 aafp.org/afp/2012/0901/p419.html

The following is a best-practice clinical care pathway for management of irritable bowel syndrome in the primary care medical home, which includes a flow diagram and expanded explanation of treatment options:


1. Suspected IBS
Recurrent abdominal pain ≥3 months duration
Associated with change of frequency and/or form of stool
And pain relieved by defecation
CBC, ferritin, celiac screen
Alarm features?
Family history CRC, IBD
GI bleeding / anemia
Nocturnal or progressive symptoms
Onset after age 50
Weight loss
Yes
Refer to GI Central Access and Triage
No
Supporting features of IBS
Intestinal: bloating, flatulence, nausea, burping, early satiety, gastroesophageal reflux, and dyspepsia
Extraintestinal: dysuria, frequent/urgent urination, widespread musculoskeletal pain, dysmenorrhea, dyspareunia, fatigue, anxiety, and depression
2. General principles of IBS treatment
Patient counselling and reassurance
Assess for offending medications
Recommend exercise, FODMAPs diet, stress reduction
Treat any sleep or psychological issues
Monitor and review
3. Specific investigative and pharmacological approaches, based on IBS subtype
Diarrhea (IBS-D)
Constipation (IBS-C)
Mixed (IBS-M)
Further investigation
Blood:
☐ CRP, albumin, electrolytes
Stool:
☐ C. difficile, O&P (CLS form #MI6011)
☐ Leukocytes, pH, fat globules, elastase
Treatment options
1. Loperamide
2. FODMAPS
3. Probiotics
4. Bile acid sequestrants
5. Tricyclic antidepressant
6. Rifaximin
Further investigation
Blood:
☐ TSH, electrolytes, ionized calcium
Treatment options
1. Increase daily fluid intake
2. PEG-based laxative
3. Probiotic
4. Linaclotide
5. Prucalopride
No further investigation
Treatment options
1. Particular attention to lifestyle and dietary principles in IBS management
2. Probiotics and FODMAPS
3. As needed use of loperamide or PEG

Flow Diagram: IBS Diagnosis and Management - Expanded Detail

1. **Diagnosis of IBS** is based on Rome IV criteria (2016) of abdominal pain related to defecation and associated with change in stool frequency or form. IBS requires very little initial laboratory investigation – CBC, ferritin, and celiac disease screen according to most guidelines. The fecal immunochemical test (FIT) has not been validated for investigation of IBS-like symptoms; ordering FIT in this circumstance is inappropriate. Anemia or other red flag features increase the likelihood of organic disease and mandate referral to GI. Absence of red flags, however, does not completely exclude the possibility of organic disease. Various other intestinal and extraintestinal features often co-exist with IBS and provide support to the diagnosis. It is estimated that unrecognized organic disorders will be present in about 15% of patients who meet Rome IV criteria and do not have alarm features. The most common diseases that are mislabeled as IBS are celiac disease, Crohn's disease, and microscopic colitis. **If C-reactive protein is ≤ 0.5 mg/dL, the probability of IBD is ≤1%.** GI cancers are very unlikely in patients that meet usual criteria for IBS.

   A detailed medical history and physical examination should be performed at presentation to assess for a multitude of other conditions that mimic IBS. A careful review of medications should be performed to identify ones that may be causing GI side effects (e.g. PPI, ASA/NSAIDs, laxatives/antacids, iron/calcium/magnesium supplements, calcium channel blockers, antidepressants, opioids, diuretics, herbal products).

2. **General principles of IBS treatment.** All patients with IBS will benefit from lifestyle and dietary modifications, and this may be all that is required in those with mild or intermittent symptoms that do not affect quality of life. Key to long-term effective management of IBS is to provide patient reassurance of the initial diagnosis IBS and offer points of reassessment and reappraisal to establish a therapeutic relationship. Connecting patients with resources for diet, exercise, stress reduction, and psychological counseling is important. Screen for and treat any underlying sleep or mood disorder.

3. **Specific approaches based on IBS subtype.** There are three clinical phenotypes of IBS: diarrhea-predominant (IBS-D), constipation-predominant (IBS-C), and mixed pattern alternating diarrhea and constipation (IBS-M). Categorizing IBS by dominant GI symptom guides focused use of a few additional investigations (particularly in IBS-D), but also guides specific treatment approaches. Use of pharmaceuticals in IBS is generally reserved for those who have not adequately responded to dietary and lifestyle interventions, or in those with moderate or severe symptoms that impair quality of life.

   Pain and bloating is a defining feature of IBS and, in some patients, these features are severe or frequent enough to affect quality of life. Antispasmodics may be beneficial in managing or aborting acute episodes of pain, and patients often take reassurance in having these on-demand treatments available. For chronic IBS pain, tricyclic antidepressants have shown benefit, and may have added benefits in those patients with mood or sleep issues.

   <u>In absence of alarm features</u>, what would prompt referral for GI consultation and possible colonoscopy? Colonoscopy may be helpful in patients with diarrhea predominance who have persistent symptoms or limited benefit from usual treatments. This is mainly to assess for Crohn's disease and microscopic colitis. In patients with constipation predominance or alternating diarrhea and constipation, colonoscopy is very unlikely to yield relevant findings.

Principles and Specifics of IBS Management by Subtype

All subtypes of IBS	
Exercise	Moderate to vigorous exercise for 20-60 minutes 3-5x per week
Soluble Fibre	Use in IBS remains controversial, as may be beneficial in some but detrimental in others. Reasonable to try psyllium husk one-half to one tablespoon daily. Insoluble fibre like bran is not beneficial.
Probiotics	Bifidobacterium infantis (Align®) 1 capsule/d ($40/mo.) *Lactobacillus plantarum* 229v (TuZen®) 1-2 capsules/d ($40-80/mo.) Visbiome ½-1 sachet daily ($50-100/mo.)
Antispasmodics	Peppermint oil (0.2 to 0.275mL caps, enteric coated) 2 capsules BID ($20-25/mo.) Hyoscine Butylbromide (Buscopan®) 10mg TID-QID ($25-40/mo.) Dicyclomine hydrochloride (Bentylol®) 20mg TID-QID ($25-40/mo.) Pinaverium Bromide (Dicetel®) 50-100mg TID ($50-75/mo.) Trimebutine (Modulon®) 100-200mg TID ($40-80/mo.) All prescribed antispasmodic medications should be fully discussed with the patient in terms of specific risks and side effects and appropriateness of use in context of their full medical history
Antidepressants	Nortriptyline or amitriptyline 10-25mg qhs, dose escalate by 10-25 mg/wk May require 25-150mg/d ($20-60/mo.); usually takes 2-3 mos. for peak effect Particularly useful in patients with diarrhea and pain predominance or sleep issues/anxiety/depression Use with caution in patients at risk of prolonged QT; note somnolence and anticholinergic side effects Latest IBS technical review does not endorse use of SSRIs
Complementary Therapies	Psychological treatments Mindfulness-based stress reduction (thebreathproject.org) Hypnotherapy Acupuncture Yoga (yogacalgary.ca)
Healthy Living/Self Management	Alberta Healthy Living Program (ahs.ca/info/cdmcalgaryzone.asp)
Diarrhea-Predominant IBS	
Antidiarrheals	Loperamide (Imodium®) 2-4mg BID ($25-50/mo. OTC) Cholestyramine powder (Olestyr® $0.40/g), colestipol (Colestid® $0.25/g) tablets or powder or colesevelam (Lodalis® $1.80/g) tablets or powder, 1-4g po OD-TID Especially useful post-cholecystectomy. Advise regarding timing with other medications to avoid interaction; if long term use, risk of fat soluble vitamin deficiencies
FODMAPs	Canadian Digestive Health Foundation cdhf.ca/bank/document_en/32-fodmaps.pdf
Gluten Avoidance	Non-celiac gluten sensitivity
Antibiotics	Rifaximin (Zaxine®) 550mg 3x/daily for 2 weeks which costs ~$325!
Constipation-Predominant IBS	
PEG-based Laxatives	Lax-a-Day® 17-34g/d ($25-50/mo.)
Prokinetics	Linaclotide (Constella®) 290µg/d 30 minutes before breakfast ($160/mo.) Prucalopride (Resotran®) 2mg/d, 4 week trial ($120/mo.)

IMPORTANT INFORMATION REGARDING YOUR RECENT REFERRAL

To ensure that your referral is triaged appropriately, please review this quality referral checklist as you create the referral. Free pocket sized copies of this checklist are available through Quality Referral Evolution (QuRE) at www.ahs.ca/QuRE.

PATIENT INFORMATION
Name, DOB, PHN, Address, Phone, Alternate contact, Translator required

PRIMARY CARE PROVIDER INFORMATION
Name, Phone, Fax, cc/Indicate if different from family physician

REFERRING PHYSICIAN INFORMATION
Name, Phone, Fax

REASON FOR REFERRAL
Diagnosis, management and/or treatment
Procedure issue / care transfer

PATIENT'S CURRENT STATUS
Stable, worsening or urgent/emergent
Understanding of situation
Key symptoms and findings
Symptom onset / duration
Red flags

FINDINGS AND/OR INVESTIGATIONS
(RELEVANT RESULTS ATTACHED)
What has been done & is available
What has been ordered & is pending

CURRENT & PAST MANAGEMENT
(LIST WITH OUTCOMES)
None
Unsuccessful / successful treatment(s)
Previous or concurrent consultations for this issue

COMORBIDITIES
Medical history
Pertinent concurrent medical problems
Current & recent medications (name, dosage, PRN basis)
Allergies
Warnings & challenges

TIPS

Assist with patient communication by indicating patient's preferred method of contact and if they will be unavailable (holiday, etc)

Don't forget that the referring physician isn't always the family physician. Keep everyone in the loop with a cc.

Make sure to express clear expectations for the consult and, when possible, outline a specific question.

Current status is must-know clinical information that has direct impact on triage of the referral.

Ensure you have listed all ordered tests so the receiving consultant does not unknowlingly order the same tests again.

Provide information on what has been tried previously and why a consult is required.

A complete medical history can help the consultant determine the complexity and urgency of the referral.

Alberta Health Services