Date: May 15, 2018

Clinical Protocol: Irritable Bowel Syndrome (IBS)

PREAMBLE

- Rule out other conditions in patient with alarm features:
  - ≥50 years with no previous colon cancer screening
  - Family history of colon cancer
  - Weight loss
  - Rectal bleeding
  - Recent change in bowel habit
  - Abdominal mass
  - Iron deficiency anemia
  - FIT positive stool
- Lab work: CBC, CRP, TTG and IgA (Celiac disease), FIT
- Insufficient evidence to suggest allergy testing
- Subtypes:
  - IBS-D (diarrhea)
  - IBS-C (constipation)
  - IBS-M (mixed)
- Try to tailor treatment according to either predominant stool form or the most troublesome symptom reported
- Consider peppermint oil or antispasmodics in patients with pain and IBS-D, with tricyclic antidepressants as second line therapy; loperamide may also be helpful prn
- Consider a soluble fiber (psyllium) as first line therapy in patients with IBS-C, possibly adding an osmotic laxative, with a trial of selective serotonin reuptake inhibitors as second line therapy
  - If constipation persists despite a trial of psyllium and PEG, constella may be tried
- In patients with bloating or IBS-D as the predominant symptom consider the use of a probiotic (such as bifidobacterium) and/or Iberogast
- Patients with ME/CFS may need to be titrated more slowly, and may not tolerate higher doses of medications
- The treatments described below may occur one-on-one or in a group setting depending on resources
- Provide patient with information/dose adjustment handout
- It is expected that physicians would educate themselves about these drugs beyond the outline provided below

1. PATIENT EDUCATION

- RCT evidence
- Incorporated into multiple offerings (e.g., handouts, web-based resources)
  - IBS Patient Resources

2. PHYSICAL ACTIVITY

- RCT evidence
- Offered in group setting and individual sessions with PT and OT
- Tai-Chi and mild Yoga
  - Suggested
  - Offerings in community rather than CCDP

3. SLEEP

- Sleep hygiene
    - Evidence from FM studies in patients with bowel issues
- Melatonin
    - Small RCT
- See Sleep Protocol for sleep disorders

4. DIET

- Offered in group setting and individual sessions with dietitian

4.1 Dietary Fiber

- IBS-C
- Meta-analysis (NNT=6) & high quality RCT

4.1 A Psyllium (ispaghula)

- E.g., Metamucil
- Watch for: abdominal discomfort, bloating
- Start ½ – 1 tbsp (7.5 to 15 mL) daily
- Increase to 1 tbsp (15 mL) TID as tolerated

4.2 Elimination diet

- RCT

4.3 Low FODMAPs diet

- Crossover RCT
- Fermentable Oligosaccharides, Disaccharides, Monosaccharides, and Polyols
    - Some fruit (e.g., (apples, cherries, peaches, and nectarines)
    - Some artificial sweeteners
    - Most lactose-containing foods
    - Legumes, and many green vegetables (broccoli, Brussels sprouts, cabbage, and peas)

4.4 Gluten-free diet

- Non-celiac gluten sensitivity (NCGS)
- RCT (double blind, placebo controlled)

4.5 Lactose-free diet

- Consider comorbid lactose intolerance

4.6 Probiotics (Align)

- Meta-analyses of 18 RCTs
- NNT=4
- Trend was seen towards bifidobacterium
- Align brand: bifidobacterium longum subsp. infantis (Bifantis)
- 1 capsule daily

5. Alternative and Complementary Therapies

5.1 Oil of peppermint

- See antispasmodic agents below

5.2 Iberogast (STW 5)

- Combination of 9 different plant extracts: Iberis amara, Angelica, Chamomile, Caraway Fruit, St. Mary's Thistle, Balm Leaves, Peppermint Leaves, Celandine, and Liquorice Root.
- Useful for bloating and pain
- RCT data
- 20 drops three times daily (before or during meals)

6. Psychological and Behavioural Therapies

- Overall, probably of benefit in IBS
- Mindfulness training seems especially beneficial
- Incorporated in core group: Living with Complex Chronic Diseases
  - Combines Education, Pacing, CBT &, Mindfulness
  - 10 weeks
- Incorporated into other groups

7. Interventions

7.1 Acupuncture

8. Medication

8.1 Antispasmodic agents

- IBS-D and pain
- 2 meta-analyses (NNT=5; NNH=17.5)
  - Otilonium (not available in Canada), cimetropium (not available in Canada), hyoscine, pinaverium (Dicetel), and dicycloverine
- Use prn or in anticipation of triggering events

8.1 A Oil of peppermint (enteric coated)

- Pooled date from 4 RCTs
- NNT=2.5; adverse events rare
- Use enteric coated capsules to prevent release in the stomach (GERD)
- Take on an empty stomach
- 200 – 250 mg BID (depending on brand)
- Do not chew capsules
- Side effects: heartburn, dry mouth, rash , dizziness, headache

8.1 B Dicetel (pinaverium)

- Selective inhibition of gastrointestinal smooth muscle
- Watch for: worsening of GI symptoms
- Start 50 mg PO TID prn
- May increase to 100 mg PO TID prn after 1 week

- Max 300 mg/day
- Tablet should be swallowed whole with a glass of water with meals. Do not crush or chew tablet.

8.1 C Dicyclomine (dicycloverine)

- Anticholinergic, antimuscarinic, antispasmodic
- Watch for: dry mouth, dizziness, constipation, GI upset, blurred vision
- Start 20 mg PO QID prn
- May increase to 40 mg PO QID prn after 1 week
- Max 160 mg/day

8.2 Antidepressants

- 2 meta-analyses
- Adverse events were not significantly commoner with antidepressants in the pooled trials

8.2 A Tricyclic antidepressants

- IBS-D
- NNT=4
- See FM/pain protocol for prescribing details

8.2 B SSRI

- IBS-C
- NNT=3.5
- See FM/pain protocol for prescribing details

8.3 Anti-diarrheal agents

- IBS-D (may also help associated pain)

8.3 A Loperamide (Imodium)

- RCT data
- Often used to reduce postprandial urgency associated with a prominent colonic response to feeding or at times of anticipated stress
- Watch for: constipation, worsening of GI symptoms, drowsiness
- 2 - 4 mg up to 4 times a day; take 45 min AC meals
- Titrate up to individual's needs
- Max 16 mg/day

8.3 B Bile acid sequestrants

8.3 B. I. Cholestyramine

- Poor palatability and low patient compliance
- Watch for: constipation, worsening of GI symptoms
- Start 4 g daily
- Increase gradually over ≥ 1-month intervals
- Increase to 8-16 g/day divided in 2 doses
- Take with meals
- Max 24 g/day

8.3 A. II. Colesevelam (Lodalis)

- Better palatability than cholestyramine, but expensive $$$
- Also helps with glucose control in type II DM

- Watch for bloating, flatulence, abdominal discomfort, constipation
- Start 625 mg PO daily
- Take with meals

AM	Evening	
625 mg		For 1 week
625 mg	625 mg	For 1 week
1.25 grams	625 mg	For 1 week
1.25 grams	1.25 grams	For 1 month then reassess before further increases
1.875 grams	1.25 grams	For 2 weeks
1.875 grams	1.875 grams	Ongoing

- Max 3.75 g/day

8.4 Osmotic laxative

- IBS-C
- Avoid fermenting osmotic laxatives (e.g., lactulose)

8.4 A PEG 3350 (polyethylene glycol)

- Used to prevent constipation
- Watch for: abdominal discomfort, bloating
- Start 17 g in 1 cup of water daily with meal
- Increase to 17 g PO BID – TID as tolerated (drink plenty of fluids)

8.4 B Magnesium hydroxide (Milk of Magnesia)

- Used as "rescue" agent for constipation
- Avoid in patients with significant CKD
- 15 -30 mL PO qhs prn

8.5 Guanylate cyclase agonists

8.5 A Constella (Linaclotide)

- RCT data
- Stimulates intestinal fluid secretion and transit
- Used in patients with IBS-C who have failed a trial of soluble fiber (e.g., psyllium/Metamucil), and polyethylene glycol (PEG)
- 290 micrograms daily
- Watch for: diarrhea, abdominal discomfort, flatulence
- No data on long-term use

8.6 Antibiotics

- Use in IBS *without* constipation
- Especially useful for bloating
- Non-absorbable antibiotic Rifaximin
  - 2 large placebo controlled RCTs (>1200 patients)
  - 12-week study
  - Adverse events were not commoner with Rifaximin
  - No cases of Clostridium difficile
- No long-term data
- Not routinely recommended
- Not a Pharmacare benefit

- For patients with moderate to severe symptoms who have failed other treatments

8.6 A Rifaximin
- 550 mg three times daily for 14 days
- $$$$

9. ASSESS AND TREAT COEXISTING CENTRAL SENSITIVITY SYNDROMES

- Level A evidence for most of these conditions
- May require referral out
- Central Sensitivity Syndromes include:
  - ME/CFS
  - FM
  - IBS
  - Migraine
  - Tension Type Headaches
  - POTS (Postural Orthostatic Tachycardia Syndrome)
  - Multiple Chemical Sensitivities
  - Interstitial Cystitis
  - Pelvic Pain Syndromes
  - Irritable Larynx Syndrome
  - Restless Leg Syndrome
  - Temporomandibular Disorders
  - Myofascial Pain Syndrome
  - PTSD

10. ASSESS AND TREAT FOR COEXISTING ANXIETY AND MOOD DISORDERS

- Level A evidence
- Referral to psychiatrist for selected patients

Resources for patients:
http://www.bcwomens.ca/health-info/living-with-illness/living-with-complex-chronic-disease/irritable-bowel-syndrome