Irritable Bowel Syndrome

Diagnosis/Condition: Irritable Bowel Syndrome (IBS)
spastic colon
Other symptoms involving digestive system

Discipline: ND/LAc
ICD-9 Codes: 564.1; 787.99
ICD-10 Codes: K58.9; R19.4; R19.8
Origination Date: 2011
Review/Revised Date: 04/2015
Next Review Date: 04/2017

Irritable bowel syndrome (IBS) is the most commonly diagnosed gastrointestinal condition in the United States (U.S.). It is a gastrointestinal syndrome characterized by chronic altered bowel habits and abdominal discomfort or pain (in the absence of a known organic cause). Prevalence of IBS in North America estimated is approximately 10-15%. Younger patients and women are more likely to be diagnosed with IBS. A systematic review estimated that there is an overall 2:1 female predominance in North America. Only about 15% of those affected seek medical attention, yet IBS still constitutes 25-50% of all gastroenterologist referrals and is the highest cause of work absenteeism after upper respiratory infections (colds). Patients with IBS have more frequent medical visits, have more diagnostic tests, are prescribed more medications, miss more workdays, have lower work productivity, are hospitalized more often, and consume more overall direct costs than patients without IBS. Resource utilization is highest in patients with severe symptoms, and poor health-related quality of life (HRQOL). Some studies suggest annual direct/indirect costs of up to $30 billion. The pathophysiology and cause of IBS is incompletely understood.

Subjective Findings and History

- Abdominal discomfort or pain with altered bowel habits (constipation, diarrhea, or alternating constipation and diarrhea) that is accompanied by at least two of the following: relief by defecation, change in frequency of stool, or change in consistency of stool.
- Abdominal pain severity, location, and character can vary. Symptoms are often triggered by food, particularly fats, or by stress.
- Other upper gastrointestinal (GI) symptoms may occur, which include, mucous discharge with stools, bloating, feeling of incomplete evacuation, straining, post-prandial urgency, gastroesophageal reflux (GERD), dysphagia, early satiety, intermittent dyspepsia, nausea, non-cardiac chest pain, abdominal bloating, and increased gas production in the form of flatulence or belching, abnormal stool frequency (≤3 bowel
movements per week or >3 bowel movements per day), and abnormal stool form (lumpy/hard or loose/watery).

- Frequent non-GI symptoms: sexual dysfunction, dysmenorrhea, dyspareunia, increased urinary frequency and urgency, and fibromyalgia symptoms.
- A subgroup of patients have history of acute viral or bacterial gastroenteritis, which then leads to a subsequent disorder characteristic of diarrhea-predominant IBS (post-infectious IBS).

### Diagnosis and Differential Diagnosis
Symptom based criteria are used as a standard diagnostic tool.

The Manning Criteria was developed in 1978 and is a formulation of a symptom complex associated with IBS. The predictive ability of this criteria is conflicting.\(^7\)

*Manning criteria for the diagnosis of IBS*
- Sensation of incomplete evacuation.
- Pain relieved with defecation.
- More frequent stools at the onset of pain.
- Looser stools at the onset of pain.
- Visible abdominal distention.
- Passage of mucus.

The Rome Criteria is a consensus definition that was created in 1992 and revised in 2005 in order to standardize clinical research protocols.\(^8,9,10\)

*The Rome III Criteria for IBS*
Recurrent abdominal pain or discomfort at least 3 days per month in the last 3 months associated with 2 or more of the following:
- Improvement with defecation.
- Onset associated with a change in frequency of stool.
- Onset associated with a change in form (appearance) of stool.

The American Gastroenterological Association (AGA) recommends that the diagnosis of IBS should be based upon: “the identification of positive symptoms consistent with the condition as summarized by the Rome criteria and excluding in a cost-effective manner other conditions with similar clinical presentations”.\(^11,12\)

According to Traditional Chinese Medicine (TCM) theory, IBS corresponds to several possible disease categories: 1) abdominal pain (*Fu Tong*); 2) diarrhea (*Xie Xie*); 3) constipation (*Bian Bi*); and 4) epigastric pain (*Wei Tong*).\(^64,65\) Individual symptom presentations, including bowel habits and the location and nature of pain, will determine the categories and eventual pattern differentiation for each patient.
TCM practitioners view the body in terms of Qi-dynamics and use unique and specific terminology. This is best summarized by the axiom “One Pattern many Diseases, one Disease many Patterns”; suggesting that identification of the correct ‘pattern’ (e.g., Liver qi stagnation) leads to improved patient care through the selection of pattern-specific acupuncture points. In the case of IBS, patients are categorized as one of seven patterns, which often overlap, e.g. Liver Qi stagnation with Spleen Qi deficiency.64-66

**Objective Findings and Assessment**
Patients generally appear to be healthy. May exhibit anxiety and appear fatigued.

**Acupuncture Objective Findings**
A meridian approach to diagnosis would indicate the diagnosis would be Spleen/Stomach Qi and blood deficiency and stagnation.

**Physical Exam**
Abdominal tenderness may be present, particularly in the left lower quadrant. A digital rectal examination (DRE), including a test for occult blood, should be done on all patients. In women, a pelvic examination helps rule out ovarian tumors and cysts or endometriosis, which may mimic IBS.

**Diagnostic Tests**
The main goal of evaluation is to rule out organic disease.

Routine laboratory studies (complete blood count (CBC), blood chemistries, thyroid, ESR, Ca) are normal in IBS. They are not recommended unless warranted by other symptoms. A more extensive evaluation should be considered in patients who have had a change or progression of symptoms, do not respond to general treatment measures, or have “alarm” symptoms.

"Alarm” or atypical symptoms, which are not compatible with IBS, include: Rectal bleeding, nocturnal or progressive abdominal pain, fever(s), weight loss, laboratory abnormalities such as anemia, elevated inflammatory markers, or electrolyte disturbances. Patients with these symptoms should be considered for additional testing.

- In those with diarrhea as predominant symptom:
  - Stool cultures – only to rule out Giardia if suspected exposure.
  - Celiac disease screening – with serum IgA antibody to tissue transglutaminase should be performed.
  - Twenty-four hour stool collection – A twenty-four hour stool collection should be considered if osmotic or secretory diarrhea or malabsorption is suspected.
  - Colonoscopy or flexible sigmoidoscopy and biopsy – Many causes of chronic diarrhea such as microscopic colitis require endoscopic evaluation.
• In those with constipation as predominant symptom:
  o Radiography – of the abdomen can detect retained stool and suggest the diagnosis of constipation.
  o Flexible sigmoidoscopy and colonoscopy – Sigmoidoscopy or colonoscopy should be performed if a structural lesion is suspected. Colonoscopy is preferred in patients who are older than 50 because of the increased risk of colon cancer in this age group.
• **Mixed IBS** – In patients with both diarrhea and constipation, screening should be performed base on medical history and other symptoms reported.
• Lactose breath testing can be considered when lactose maldigestion remains a concern despite dietary modification.
• Psychosocial Factors: Assess mental health history and symptoms, and, because of the positive correlation between abuse and certain GI illness patterns, patients with refractory or severe IBS should be questioned about physical and sexual abuse. Some patients may have sleep disturbance, anxiety disorders, depression, or a somatization disorder. However, stress and emotional conflict do not always coincide with symptom onset and recurrence.

**Naturopathic Plan**

*Lifestyle and Dietary Modifications:*

• Treatment is directed at specific symptoms.
• Education about condition in order to establish appropriate therapeutic goals (e.g., expectations regarding the normal course or variability in symptoms, adverse effects of drugs, the appropriate working relationship between the doctor and the patient) should be established.
• Avoid gas-producing and diarrhea-producing foods (beans, onions, celery, carrots, raisins, bananas, apricots, prunes, brussel sprouts, wheat germ, simple carbohydrates). Few contemporary studies have shown carbohydrate malabsorption is a major contributor to IBS.  
• Reduce portion size and implement pace eating. Those with abdominal distention and increased flatulence may benefit from reducing or eliminating foods containing fermentable carbohydrates (beans, cabbage). Underlying visceral hyperalgesia in IBS may explain the exaggerated discomfort experienced with consumption of gas-producing foods.
• Food allergies/sensitivities – The role of food allergy in IBS is unclear. Various testing methods for food allergies are available, although there is conflict about their reliability and an elimination/challenge diet is helpful to identify change in symptoms.  
• Gluten sensitivity – Gluten sensitivity (without overt celiac disease) has been proposed as a cause of functional bowel disorders and an elimination/challenge diet may help to decipher this condition.
• Reduced intake of sweeteners – (e.g., sorbitol, mannitol, fructose) and ethyl alcohols, which are constituents of natural and processed foods (e.g., apple and grape juice,
bananas, nuts, and raisins), may decrease flatulence, bloating, and diarrhea.\textsuperscript{18} Patients with evidence of lactose intolerance should reduce their intake of milk and dairy products.\textsuperscript{19} A lower-fat diet may reduce postprandial abdominal symptoms.\textsuperscript{20}

- Restricting rapidly fermentable, short-chain carbohydrates (Fermentable Oligo-, Di- and Mono-saccharides and Polyols or FODMAPs)\textsuperscript{21,22}

Increased fiber intake (primarily for constipation) - Dietary fiber supplements may soften stool and improve the ease of evacuation. A bulk-producing agent may be used supplemented with increased fluid intake. Alternatively, psyllium (natural) with excess water may be used. However, excessive use of fiber can lead to bloating and diarrhea, so fiber doses must be individualized. Occasionally, flatulence may be reduced by switching to a synthetic fiber preparation (e.g., methylcellulose)\textsuperscript{23,24,25}

- Psychologic stress, anxiety, or mood disorders should be identified, evaluated, and treated.

- Behavioral or mental health therapy - Cognitive-behavioral therapy, standard psychotherapy, biofeedback, and hypnotherapy\textsuperscript{26,27,28,29,30,31,32,33} may help selected IBS patients to help reduce anxiety levels, encourage health promoting behavior, increase patient responsibility and involvement, and improve pain tolerance.\textsuperscript{34,35,36,37}

- Relaxation techniques (yoga, meditation, deep breathing, progressive muscle relaxation, visualization).\textsuperscript{38}

- Regular physical activity helps relieve stress and assists in bowel function, particularly in patients with constipation.\textsuperscript{39,26}

- Multi-component therapy incorporates elements of education, relaxation therapy, biofeedback, and cognitive therapy or psychotherapy. Several studies have been done with these criteria in mind.\textsuperscript{40,41,42,43}

- Manipulative Medicine.\textsuperscript{44}

- Homeopathy.\textsuperscript{45}

- Fecal transplant therapy.

**Supplementation or Nutraceuticals**

- Preliminary data suggest that certain pre/probiotics (e.g., *Bifidobacterium infantis*) improve IBS symptoms, particularly bloating.\textsuperscript{46,47,48,49,50,51,18}

- Some aromatic oils (carminatives) can relax smooth muscle and relieve pain caused by cramps in some patients. Peppermint oil, ginger, and fennel are the most commonly used agents in this class, but peppermint can also exacerbate GERD.\textsuperscript{18}

- *Curcuma sp.* (Turmeric), *Cynara scolymus* (artichoke leaf), *Fumaria officinalis*, *Hypericum perforatum* (St John’s wort), *Maranta arundinacea* (Arrowroot), *Mentha × piperita* (peppermint oil),\textsuperscript{52,53} *Plantago psyllium*.\textsuperscript{54}

- Chinese herbs (Tong xie yao fang (TXYF), STW 5 and STW 5–II).\textsuperscript{55,56}

- Carmint (an Iranian herbal medicine containing total extracts of *Melissa officinalis*, *Mentha spicata*, and *Coriandrum sativum*).\textsuperscript{57}

- A Tibetan herbal digestive formula known as Padma Lax.\textsuperscript{58}

- STW 5 (Iberogast).\textsuperscript{59}
• C-IBS and DA-IBS formulations.
• Gwakhanyeonggisan (GJS).
• Glutamine 1000-3000 mg per meal.
• HCl with meals if indicated, enzymatic support from plant based enzymes or true pancreatic enzymes with or after meals, probiotics and maybe specifically, saccromyces boulardii twice daily for a month or two or three.
• With lots of mucus, Sea-cure and colostrum have been used.
• Slippery elm tea or products with that and marshmallow and licorice may be indicated.

Acupuncture and Oriental Medicine Plan
• Common acupuncture points would be TW-5, PC-6, ST-36,37 and SP-9,8.
• Frequency of treatment: twice a week for at least two weeks with evaluation of progress after two weeks. Severity of symptoms will guide frequency of treatment.
• When patient states they are 70% improved, treatment frequency can be reduced to once a week as tolerated by the patient and re-evaluation should take place in a month.
• Whole food nutrition is important and dietary assessment is an important part of ongoing treatment.
• Chinese Herbs: Individualized Chinese herb formulas have been shown to be effective with minimal adverse effects. An herbal formula consisting of codonopsis, atractylodes rhizome, poria, psoralea fruit, evodia, siler root, tangerine peel, ash bark, and caromom was found to be "markedly effective" in 43 of 60 patients twice a day as a concoction. Depending on the patients' accompanying symptoms, such as constipation and abdominal pain, such formulas may be modified.

Behavioral and cognitive approaches may include:
• Diet changes:
  o Some foods make IBS worse including fatty foods like French fries, milk products like cheese or ice cream, chocolate, alcohol, caffeine (found in coffee and some sodas), carbonated drinks like soda.
  o Dietary fiber improves IBS symptoms.
  o Eating smaller meals may improve IBS.
• Stress reduction through regular exercise, meditation, yoga or counseling.
• There is some limited support for comprehensive Cognitive Behavioral Therapy (CBT) approaches which may include information and education, progressive muscle relaxation, training in illness-related cognitive coping strategies, problem-solving, and assertiveness training.

Prescription Medications
Drug therapy is directed toward the dominant symptoms. The chronic use of prescription medications for IBS should be avoided.
• Anticholinergic/antispasmodic drugs (e.g., hyosciamine, cimetropium, pinaverium) may be used for their antispasmodic effects.
- Prokinetic and prosecretory agents.\textsuperscript{70}
- Bile acid modulators.
- Chloride channel activator lubiprostone may help patients with constipation.
- In patients with diarrhea, anti-diarrheals, such as oral diphenoxylate or loperamide may be given before meals. The dose of loperamide should be titrated upward to reduce diarrhea while avoiding constipation.\textsuperscript{71,72,73}
- For many patients, tricyclic antidepressants (TCAs) help relieve symptoms of diarrhea, abdominal pain, and bloating. These drugs are thought to reduce pain by down-regulating the activity of spinal cord and cortical afferent pathways arriving from the intestine.
- Secondary amine TCAs (e.g., nortriptyline, desipramine) are often better tolerated than parent tertiary amines (e.g., amitriptyline, imipramine, doxepin) because of fewer anticholinergic, sedating antihistaminic, and α-adrenergic adverse effects. Treatment should begin with a very low dose of a TCA increasing as necessary and tolerated.\textsuperscript{74}
- Serotonin receptor modulation may be of benefit. SSRIs/SNRIs are also useful, particularly for patients with anxiety or an affective disorder, but may exacerbate diarrhea.\textsuperscript{1}
- Antibiotics (rifaximin).\textsuperscript{75,76}

**Referral Criteria**
- Pain associated with anorexia, malnutrition, or weight loss. This constellation is extremely rare in IBS unless there are concurrent alternate factors, such as major psychological illness.
- Pain that is progressive, awakens the patient from sleep, or prevents sleep.
- Large volume diarrhea, persistent fever, bloody stools, nocturnal diarrhea, and greasy stools are NOT associated with IBS and suggest an organic disease.

**Resources for Clinicians**


**Resources for Patients**

The Evidence


Dalrymple J, Bullock I. Diagnosis and management of irritable bowel syndrome in adults in primary care: summary of NICE guidance. BMJ. Mar 8


Irritable Bowel Syndrome in Adults: Diagnosis and Management of Irritable Bowel Syndrome in Primary Care. NICE Clinical Guidelines, No. 61. National Collaborating Centre for Nursing and Supportive Care (UK). 2008.
Clinical Pathway Feedback

CHP desires to keep our clinical pathways customarily updated. If you wish to provide additional input, please use the e-mail address listed below and identify which clinical pathway you are referencing. Thank you for taking the time to give us your comments.

Clinical Services Department: providers@chpgroup.com


Irritable Bowel Syndrome Clinical Pathway

The CHP Group

Irritable Bowel Syndrome Clinical Pathway

The CHP Group

Copyright 2014 The CHP Group. All rights reserved.

