## Background
Chronic abdominal pain is defined as persistent or recurrent episodes of pain lasting for more than 2 months. The pain may be caused by a specific organic disease or be due to a functional disorder (more common). Functional GI disorders include: functional dyspepsia, irritable bowel syndrome and functional abdominal pain. For the diagnosis of chronic functional abdominal pain, the following must be present at least once per week for 2 months:

1. Episodic or continuous abdominal pain
2. No evidence of inflammatory, anatomic, metabolic, or neoplastic process

The approach to a child with chronic abdominal pain involves looking for red flag symptoms and signs on history and physical examination that suggest the pain is more likely due to an organic disease. If none are present, providers should be prepared to make a diagnosis of a functional disorder with minimal diagnostic work up and appropriate management.

## Initial Evaluation
### Red Flags in Clinical History:
- **Weight loss**
- **Unexplained fevers**
- **Unexplained rashes**
- **Dysphagia/odynophagia**
- **Persistent vomiting**
- **Hematemesis**
- **Bilious emesis**
- **Chronic diarrhea (> 2 weeks)**
- **Hematochezia/melena**
- **Persistent right upper or right lower quadrant pain**
- **Pain radiating to the back**
- **Arthritis**
- **Recurrent oral ulcers**
- **Anal/perianal ulcers**
- **Nocturnal symptoms (waking with diarrhea +/- vomiting)**
- **Delayed puberty**
- **Deceleration of linear growth velocity**

### Social History:
- Emotional or physical abuse
- Life stressors such as divorce, bullying, alcohol or drug abuse in home, relationship with family members, changes in school performance
- Interference with school extracurricular activities

### Lifestyle History:
- sources of excessive juice, soda, or sugar-free gum
- regular physical activity 1hr daily
- sleep hygiene and adequacy

### Family History:
- Inflammatory bowel disease (IBD) (Crohn's Disease, Ulcerative Colitis)
- Peptic ulcer disease (PUD)
- Celiac disease
### Initial Evaluation (continued)

**Red Flags in Physical Exam:**
- Decline in weight/height parameters
- Pallor or anemia
- Abdominal distension
- Organomegaly (hepatosplenomegaly)

**Initial Management**

Screening laboratory tests can guide the diagnostic process to more specific investigations:
- Hemoccult - may indicate PUD, IBD, or constipation.
- CBC - anemia or eosinophilia may indicate PUD, IBD, or eosinophilic intestinal disease.
- ESR or C-reactive protein (CRP) – elevated may indicate IBD.
- Comprehensive metabolic panel (CMP) can detect hypoproteinemia or elevated liver enzymes.
- Urinalysis, urine culture can detect renal disease.
- Stool culture, Parasite panel, giardia Ag, C. difficile toxin, and cryptosporidia Ag (chr. diarrhea)
- IBD panels and helicobacter pylori serum antibody tests are not recommended.

If there are no red flags or concerning signs/symptoms, assume that the patient has a functional gastrointestinal disorder and consult the Rome IV Criteria. Principals of treatment include:

- **Acknowledge** that the pain the child is experiencing is real and show empathy for their concerns. “The pain is real.”
- **Educate** parents on the concept of functional abdominal pain, current understanding of the role of intestinal hypersensitivity and the brain-gut axis and how this can result in a heightened sense of awareness of the pain when the child is subject to life stressors. Educate parents on possible stressors that could be from home, school, or personal anxiety.
- **Identify** precipitating (certain foods or stress) and associated factors (changes in bowel movement, pain associated or relieved with defecation) to guide towards treatment options.
- **Minimize Pain** by decreasing factors that aggravate intestinal hypersensitivity:
  - Emphasize high fiber/low fat diet (5/day servings of fruit/veg, fiber cereal for breakfast, 1% low fat or skim milk), plenty of water, adequate sleep, and regular exercise.
  - Aggressively treat constipation
  - Avoid NSAID’s and narcotics.
- **Reassure** the child and family that although the pain may be bothersome, the child is in no danger and functional pain is an otherwise benign condition. Emphasize to the child and family that it is unlikely the pain will disappear completely but that with these practical measures the pain will decrease significantly and allow the child to function normally. Emphasize the need for coping mechanisms and the value of referral to a behavioral health professional skilled in cognitive behavioral therapy (CBT). Enlist the support of school staff.

Many children respond to the simple measures outlined above. For worsening symptoms, consider referral to a pediatric gastroenterologist and/or to a behavioral health professional.

### When to Refer
- Red Flag(s)
- Concerning symptoms or signs within the history, physical, and laboratory/radiologic W/U

### Pre-Visit Work Up
1. Growth charts
2. Screening Lab Results
3. Radiologic studies (note: copies of films (CDs if possible) if performed outside of MHS),
4. Brief summary of the treatment course, including medications (written by PCP)
5. Reason for consult

### Co-management Strategy
- **Specialist scope of care**
  - Tailored to Patient
- **Primary care scope of care**
  - Routine care
| Return to Primary Care Endpoint | Tailored to Patient |