

Chronic or functional abdominal pain (FAP)

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See also: 'Acute abdominal pain' guideline on Brighton Microguide (Paediatrics>A-Z>A)

Background

- Functional abdominal pain = 4 episodes of abdominal pain per month for at least 2 months. There is usually some reduction to daily activities and may also be fatigue and headaches.
- Studies suggest that in the absence of red flags (see boxes below), most children presenting with recurrent, chronic abdominal pain, have no identifiable organic pathology.
- Remember to consider gynaecological causes in young people with female sexual organs e.g. PID / ovarian pathology

In most cases, functional abdominal pain is ill-defined and poorly localized or peri-umbilical.

Episodes of pain usually last for less than one hour, and resolve spontaneously.

Pain may be triggered or exacerbated during times of stress (e.g. school transitions, parental divorce and emotional trauma).

The child is well and functions normally between episodes but may have symptoms of anxiety or depression (separation anxiety, social phobias, specific phobias, generalized anxiety). Alarm symptoms (see boxes below) are lacking. The family history often is positive for IBS, reflux, constipation.

Difficult cycle to break: pain perception → worry about the pain and anticipation → worsening of pain / up-regulation of pain → pain perception.

Discuss with senior staff prior to performing investigations in chronic patients, as differing plans and advice in patient care (such as doing tests when previously felt unnecessary) can cause the family to distrust their own medical team, and is often cited as a cause of frustration felt by patients and their parents.

****Check Panda for patients with a longstanding history or multiple attendances to see what discussions have taken place with the child and family****

Assessment

Rome IV classification of functional abdominal disorders (2016) reduces the emphasis on investigations and FAP being a diagnosis of exclusion, permitting an approach of limited, selective or no testing to support a diagnosis of FAP.

- Check for red flag features and signs (see boxes below)
- **Consider undertaking** 'one-stop' targeted panel **including** a coeliac screen, inflammatory markers **and consideration of** faecal calprotectin (If sent from CED, results to be chased via Green results folder)
- USS is rarely helpful in detecting causative pathology with chronic, recurrent abdominal pain

Alarm symptoms

- Family history of inflammatory bowel disease, coeliac disease or peptic ulcer disease
- Persistent right upper or right lower quadrant pain
- Difficulty or painful swallowing
- Persistent vomiting
- Gastrointestinal blood loss
- Nocturnal diarrhoea
- Arthritis
- Peri-rectal disease
- Involuntary weight loss or Deceleration of linear growth
- Delayed puberty
- Unexplained fever

Alarm signs

- Abdominal mass
- Hepatosplenomegaly
- Spinal tenderness / joint swelling or redness or heat
- Jaundice
- Perianal abnormalities
- Finger clubbing
- erythema nodosum
- pyoderma gangrenosum
- delayed puberty

Differential diagnoses

Chronic constipation

Take full history about the bowel habit (frequency, consistency, size, excessive straining, smearing / soiling). More likely if abdominal pain is constant and happens daily, partic if worsened with meals (as food stimulates peristalsis).

Others to consider

- If there is bloating, flatulence, belching, halitosis, intermittent diarrhoea - discuss with GI team for consideration of bacterial overgrowth
- **In the absence of IgE related symptoms (bumpy, raised itchy rash), onset of vomiting, or lip swelling / itching within 1-2 hours of food ingestion, IgE testing for food allergy is not indicated.**
- Some children may have a food "intolerance" but the link with abdominal pain is very poor. If parents feel there is a link to food such as dairy or wheat, then excluding that food type (separately, not together) for a 2 week period followed by complete re-introduction of the food, can be trialled- exclusion must be followed by reintroduction of the suspected food, along with a food diary, in order to objectively decide symptom improvement.
- Sexual intercourse and some types of contraception can cause chronic abdominal pain and young people may be reluctant to discuss. Consider referral to the Sexual Health and Contraception Service @ Claude Nicol ([SHAC East \(Claude Nicol Centre\) | Brighton & Hove Sexual Health and Contraception Service \(brightonsexualhealth.com\)](#))

Rome IV Criteria can help differentiate between the types of functional abdominal pain

Diagnosis	Criteria
Functional abdominal pain- Not otherwise specified) (now includes FAP disorder, and FAP syndrome	<ul style="list-style-type: none"> * Episodic or continuous abdominal pain occurring at least 4 times per month * Insufficient criteria for IBS, functional dyspepsia or abdominal migraine * Cannot fully be explained by another medical condition after appropriate evaluation Does not solely occur with physiological events e.g. menses * Can coexist with other medical conditions such as inflammatory bowel disease
Functional Dyspepsia	<ul style="list-style-type: none"> * Persistent/recurrent epigastric pain * No relief on opening bowels * No change in stool frequency or form
Irritable Bowel syndrome	<ul style="list-style-type: none"> * Abdominal pain present for 1 day per week in the last 3 months with symptoms present for at least 6 months prior to diagnosis. Associated with 2 of more of the following at least 25% of the time: <ul style="list-style-type: none"> - Pain related to defecation - Associated change in stool frequency or form
Abdominal Migraine	<ul style="list-style-type: none"> * Paroxysmal episodes of intense, acute, peri-umbilical pain lasting more than 1 hour * Intervening periods of usual health lasting weeks to months * Pain interferes with normal activity * Associations (2+): anorexia, nausea, vomiting, photophobia, pallor Must occur more than 2 times in the preceding 12 months

Management

Management approach to functional abdominal pain

- At the time of presentation, the parents and child may be frustrated or increasingly concerned that the child has a serious disorder. **The parents should be asked (non- confrontational) what they are worried is causing the pain**, so that their concerns can be directly addressed.
- Important to clearly state from the beginning that **although the pain is real**, it does not necessarily mean it is caused by an abnormality in the workings of the bowel.
- **If performing baseline tests** (for “your/your child’s reassurance) explain that you expect these to be normal as the pick-up rate is less than 5-10%
- Mention Rome Criteria if it helps.
- The focus of management is the improvement of function rather than complete resolution of pain (see next page)
- Give them the *FAP leaflet* to read – available on the Trust’s leaflet page [here](#) – and point out this video [What is Functional Abdominal Pain? - YouTube](#) to younger children

Management techniques

Address all aspects of the biopsychosocial model of care.

Explain that FAP tends to improve with time and most children eventually grow out of it without any specific treatment other than distraction.

1. Biological treatment:

Child / parents may have noticed that analgesia often has little impact (this is because analgesia rarely impacts on visceral hypersensitivity).

- See p2 and patient information leaflet about *trial of* probiotics or exclusion
- Address constipation if history suggestive
- Poor evidence for antispasmodics
- Trial of PPI ***if*** there features of dyspepsia - but again set expectations that for functional dyspepsia, PPI often has little impact, due to different mechanism.

PPIs for dyspepsia

First line:

Lansoprazole or dispersible omeprazole
< 1 year or feeding tube:

Liquid omeprazole

See BNFC for doses

Therefore addressing wider aspects of “pain theory” is important.

2. Psychological treatment:

Distraction has been found in studies to be most effective in symptom reduction, together with addressing concomitant anxiety symptoms.

Studies have also found that parental and child acceptance of the functional nature of pain is best prognosticator of symptom improvement.

3. Social treatment:

- Explain ‘social’ aims of treatment e.g. going back to school 3 days a week after prolonged absence, going for a walk along the beach once a day after being bedbound.
- Developing coping mechanisms and relaxation tips to deal with pain e.g. for younger children conceptualising pain as a creature in their tummy and breathing it out.

Example explanation to families

- ❖ This type of pain is really common in people of your age, and while we may not be able to stop you feeling the pain, there are lots of ways we can help you continue doing the things you enjoy.
- ❖ The body has different ways of coping with pain. Sometimes after a mild illness / event, the way the body processes pain changes. Nerve signals from the gut or brain can cause the gut to be more sensitive to triggers that do not usually cause pain, such as stretching or bloating. Therefore a lot of the sensations that are usually filtered out are felt more deeply. The body recognises this as pain, and sends out more signals to try to address this pain, which then can worsen the pain. This is called up-regulation of pain pathway / receptors “body’s pain thermostat is set too high”.
- ❖ Severity of pain is not necessarily related to severity of disease.
- ❖ Sometimes these feelings can be brought on by a stressful situation, in the same way that lots of people get headaches when they are worried, nauseous when given bad news, need to urinate when nervous, or develop loose stools when anxious. This is a normal way the body deals with stressful situations

Follow up

Most children should be able to be followed up by their GP.

If any tests are done or arranged, they will need to be chased and dealt with by the hospital team, not the GP. Use the Green results folder if requesting from CED.

Only arrange outpatient follow up in the general paediatric clinic at RACH if:

- an organic cause for pain is considered or discovered, or
- Repeated CED attendances with abdominal pain, or
- Repeated attendances to GP or loss of faith in GP

Other resources:

- [functional-abdominal-pain-in-children-and-adolescents-management-in-primary-care](#)
- Patient Information Leaflet available on the Trust's leaflet page <https://www.bsuh.nhs.uk/your-visit/patient-information/>