Crohn’s Disease: Treating Your Child in the Hospital

Why is a hospital stay needed?
Most of the time, your child or teen can manage their Crohn’s disease with medicine and diet at home. Sometimes it flares or gets worse and this can be a serious matter. Crohn’s disease flares can move from bad to worse. This hospital stay is to improve your child’s symptoms of Crohn’s disease and treat any complications.

Who will care for my child?
Your child will receive care from a team that may include many doctors, nurses, dietitians and other staff members. Refer to Children’s booklet Welcome to the Medical Unit PE077 for information on the roles of your health care team.

What is Crohn’s disease?
Crohn’s is a type of inflammatory bowel disease (IBD). The disease causes inflammation anywhere in the gastrointestinal tract, but most commonly in the lower part of the small intestine (ileum) and the large intestine (colon). The inflammation occurs in patches and affects the inner lining of the intestines, and may extend outside the intestinal wall into the abdominal cavity. This may cause stomach pain (which can be severe), diarrhea or constipation; and at times, bloody diarrhea, weight loss, anemia, or compromised nutrition.

Main areas of intestine affected by Crohn’s
What are the complications and treatment of Crohn’s Disease?

Active Crohn’s inflammation causes various symptoms. Early recognition and prompt treatment of flares and complications are key to getting your child back on track and feeling well. The most common complications of Crohn’s and its treatments are listed below.

Abdominal or pelvic complications

**Inflammation or “flare”**
The inside of the intestine wall is inflamed and swollen, making the intestine more narrow so the bowels have a hard time passing waste product.

**Perforation of the bowel**
A “perforation” is a hole in the intestinal wall. This occurs when the ulcers of the intestine go all the way through the lining of the intestine. Surgery is necessary to repair the hole in the intestinal wall.

**Toxic megacolon**
Toxic megacolon occurs when the large intestine becomes severely inflamed, causing the intestine wall to weaken and balloon out. Repair requires immediate surgery to prevent rupture or perforation of the intestine.
Stricture – bowel obstruction

When the intestine becomes so inflamed that it narrows to the point of partially or fully blocking the gut from moving any waste product/stool. A “bowel obstruction” is a blockage of the intestines due to inflammation and swelling of the inside of the intestines or a scar.

A partial bowel obstruction may be treated with IV fluids and a nasogastric (NG) tube to remove stomach contents that cannot pass because of the partial blockage. This tube usually helps reduce vomiting, nausea and pain rapidly. Your child will not be allowed to eat or drink until the obstruction is cleared. Surgery may be needed in the future to prevent it from happening again.

A complete bowel obstruction will require surgery to open the obstruction.

Fistula and abscess

A “fistula” is an abnormal connection or passage from one part of an organ to another; in this case, one part of the intestine opens to another. This tissue breakdown is caused by deep Crohn’s inflammation.

An abdominal/pelvic fistula can leak digestive contents into the abdomen or pelvis and allow a pocket of pus called “abscess” to form. Symptoms include abdominal pain, nausea, vomiting, fever and tenderness to touch on the belly area.

Treatment for abdominal/pelvic fistula and abscess

Treatment is based on the size of the abscess and where the fluid is collecting. A small amount of fluid or pus is usually treated with intravenous (IV) antibiotics through a vein first, followed by antibiotics given by mouth. A large amount of fluid or pus may need to be drained and rinsed out in a procedure done by interventional radiology or the IBD surgery team. This is a minimally invasive image-guided procedure done through a small cut made in the skin under anesthesia sedation. A drain may be left in place so the area can be flushed twice a day for a few days. After the procedure, your child may need several radiology studies (e.g., CT scan, MRI, ultrasound) of the area where the fluid or pus collection was, to be sure it was all removed. Inflamed bowel that results in a fistula, or abscess in an abdominal or pelvic fistula, will likely require surgery.

Treatment for perianal complications

Skin tags

Skin tags are caused by Crohn’s inflammation. When the Crohn’s inflammation is effectively treated, the skin tags should not cause any problem beyond minor irritation. When inflamed, they could be painful and bleed a little. It is discouraged to remove the tags surgically due to the high complication risk.
**Fissures**

Fissures are small tears that can occur in the lining of the mucus membranes of the anus. Fissures heal when the Crohn’s inflammation is treated effectively. Some skin ointments can help reduce the discomfort around your child’s bottom.

**Fistula and abscess**

A fistula is an abnormal connection or passage from one part of an organ to another. In some cases, one part of the intestine opens to the outer skin around the anus. This is called an anal fistula.

An anal fistula can also cause an abscess in the area around the anus. This is called a perianal abscess. Symptoms include bottom pain, pus, pain with stooling, stomach pain, pain around the anus, difficulty sitting, difficulty walking, and sometimes fever or vomiting. When an abscess is formed around the anus, surgery under full anesthesia may be done to drain the pocket of pus.

A soft, thin, short, closed drain called “seton” is usually left in the anal area after surgery. This reduces pain right away and helps prevent an abscess from recurring. A seton drain can stay in place for 4 to 12 months until the fistula heals.
What can I expect during this hospitalization?

While your child is in the hospital, they are assigned a lead doctor who will recommend what testing needs to be done and make a specific plan for treating the child’s inflammatory bowel disease. The plan may include:

- Medicine to reduce the inflammation and improve symptoms
- Radiology imaging (X-ray, MRI, ultrasound, CT scan)
- Blood tests
- Guided diagnostic scope camera exams of the inside of the colon (endoscopy, sigmoidoscopy)
- Continuous monitoring of symptoms including bowel movements (stool), bleeding, pain, and activity level
- Regular temperature, heart rate, blood pressure and pain checks
- Tracking and measuring of all urine and stool that comes out of your child

What diagnostic scope exams are used during my child’s stay?

Several types of tests using scopes help us look inside your child’s bowel. The type of endoscopy procedure used depends on how far we need to go up (or down) into the bowel.

Upper endoscopy (EGD)

Upper endoscopy uses a thin, flexible tube called a scope to examine the lining of the esophagus, stomach and part of the small intestine (duodenum). The scope is inserted through the mouth, into the esophagus and has a lighted camera inside the tip so that the doctor can look directly at the lining of these areas. An upper endoscopy can confirm a diagnosis of Crohn’s disease, evaluate the presence of inflammation in the upper GI tract, or find a source of bleeding. Your child will be sedated to minimize discomfort.
**Colonoscopy**

Colonoscopy uses a very long, thin, flexible tube called a scope to look at the lining of the whole large intestine. The scope is put in through the anus and has a lighted camera inside the tip so that the doctor can look directly at the lining of the colon. Tissue samples can be collected to confirm a diagnosis of Crohn’s disease, evaluate the presence of inflammation in the colon, or find a source of bleeding. Your child will be sedated.

**Sigmoidoscopy**

Sigmoidoscopy uses the same type of scope as with the colonoscopy, but to look at the lining of the lower third of the large intestine (the rectum and sigmoid colon). A flexible sigmoidoscopy exam can confirm a diagnosis of ulcerative colitis, Crohn’s disease of the lower part of the colon, the presence of inflammation, the source of bleeding, or infections that worsen symptoms (such as cytomegalovirus). Your child will be sedated to minimize discomfort.
Will my child require a central line?
A central line is a small tube that is placed in a main blood vessel leading to the heart. It can stay in place throughout your child’s treatment for their entire hospital stay and beyond. Some children who are very sick and cannot take food by mouth may need to get specialized IV nutrition through a central line (see page 8, Nutritional therapy). The medicines used in the treatment of Crohn’s do not require a central line, but if your child already has one in place for their nutrition, we will likely put the medicine in through this line as well. The central line can be used after discharge home if necessary for the treatment plan, to give antibiotics and IV nutrition.

Preventing blood clots
Sometimes we give your child a blood thinner medicine called enoxaparin (by injection) to help prevent blood clots around the central line. Active inflammatory bowel disease may make your child more likely to have blood clots, especially when a central intravenous line is in place. Blood clots may cause problems if they form inside blood vessels such as arteries, veins, or the heart. Ask your doctor whether your child should receive medicine to prevent blood clots.

Enoxaparin (Lovenox)
Enoxaparin (Lovenox), or low molecular weight heparin (LMWH), is an anticoagulant. An anticoagulant is a medicine that prevents blood clots from forming inside blood vessels. It works by making the blood take longer to clot. This means that your child will bleed longer than usual after a cut or scrape when taking this medicine. In studies of patients with inflammatory bowel disease, enoxaparin did not worsen rectal bleeding.

Enoxaparin is given by a subcutaneous injection (a shot into the tissue just below the skin).

What is the treatment plan?
Medical treatment for Crohn’s disease has two main goals: achieving remission (the absence of symptoms) and maintaining remission (prevention of flare-ups). To accomplish these goals, treatment is aimed at controlling the inflammation (swelling) in the intestine. This is done through medicines (medical therapy) and nutritional therapy.

Our overall goals for treating your child are to:
• Restore balance and health to your child’s body
• Relieve any pain or other symptoms caused by Crohn’s
• Decrease inflammation and heal ulcers in your child’s intestines
• Make sure your child is getting good nutrition
• Restore your child’s growth and development
• Ensure your child is building bone, because inflammation can weaken bones
• Help your child and family with the mental, emotional and social effects of IBD

Your GI team will design a individualized treatment plan and review with you and your child. You will find more resources on our IBD website.
**Medical therapy (medicines)**

Medicines are part of the treatment for IBD, including Crohn’s. They work to calm the overactive immune system and reduce inflammation. We try to avoid using corticosteroids (medicines that suppress the immune system) because they can cause long-lasting side effects if used again and again.

**Medicines used to treat IBD and Crohn’s include:**

- Immune modulators - drugs that weaken or modulate the immune system (e.g., azathioprine, 6-mercaptopurine, cyclosporine, tacrolimus, methotrexate)
- Biologics:
  - Anti-TNF therapy: genetically engineered proteins derived from human genes (e.g., Humira, Cimzia, Remicade)
  - Anti-adhesion therapy: e.g., vedolizumab (Entvyio), natalizumab (Tysabri)
  - IL12-23 therapy: ustekinumab (Stelara)
  - Other: thalidomide, mycophenolate
- Aminosalicylates – a specific type of anti-inflammatory (e.g., mesalamine) with an aspirin-like active portion that reduces colonic inflammation

**Nutritional therapy**

Nutritional therapy is giving feedings through a tube or vein when your child is unable eat food by mouth. This is used to help your child gain weight, restore lost vitamins and minerals, promote growth, and assist with anti-inflammatory therapy. There are two options:

- **Tube feeding** – nutrition given through a tube in the nose that goes down into the stomach. This is called a nasogastric (NG) feeding tube.
- **Intravenous (IV) feeding** - nutrition given intravenously through a peripherally-inserted central catheter (PICC line) in a vein in the arm.

We also support diet therapy that can improve inflammation control and provide comprehensive nutritional needs under expert nutrition on the Specific Carbohydrate Diet.

**When is my child able to leave the hospital?**

Your child/teen is ready to go home when their GI symptoms are improved and they have:

- No fever
- Stable vital signs
- A nutrition plan set in place (and they can eat and drink to keep up with needed calories or have an alternative plan)
- No need for intravenous pain medicine
- Follow-up visits scheduled in the Gastroenterology clinic