



## IBD: Who Can Go Home? Who Should Be Admitted?

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### Pearls and Pitfalls

- Acute inflammatory bowel disease (IBD) flares are often difficult to distinguish from disease complications.
- Patients who are well appearing and tolerating oral intake are typically stable for discharge with prompt follow-up.
- Indications for admission include acute severe IBD flares, acute infectious complications, medication reactions, and surgical emergencies. Patients in need of acute immunomodulatory medication infusions also generally require admission.
- Surgical consultation is indicated in patients with an acute abdomen, clinical or radiologic concern of perforation, toxic megacolon, and/or abscess.

The management of acute inflammatory bowel disease (IBD) poses many challenges, including determining which patients require admission and which ones are stable for discharge with specialist follow-up. In making this decision, acute care providers should attempt to differentiate among the multiple potential sources of these patients' symptoms. Patients may present due to a disease flare, disease complication, infection, adverse drug reaction, and/or extra-intestinal

manifestation. Symptoms of these various presentations frequently overlap. Infectious colitis, toxic megacolon, bowel obstruction, and perforation all may mimic a disease flare. Patients may also demonstrate more than one presentation simultaneously. For example, a disease flare may occur concurrently with a bowel obstruction. The frequent use of immunosuppressants and immunomodulators may mask infectious complications, increasing the complexity of disposition decisions. Extra-intestinal complications and medication side effects may be life-threatening. Acute care providers should have a low threshold for involving appropriate specialists in the management and disposition of these complex patients.

The largest determinant of disposition for both ulcerative colitis (UC) and Crohn's disease (CD) patients is the severity of presentation, determined by history, vital signs, physical exam, laboratory results, and imaging results (if obtained). Patients with mild to moderate flares who can tolerate oral intake (PO) and have normal vital signs, reassuring bloodwork, and nonconcerning imaging (if obtained) are candidates for discharge. Decisions regarding medication changes and/or additions should be made in discussion with the patient's gastroenterologist. Acute severe flares usually require admission for medical intervention with immunomodulators such as intravenous corticosteroids. Complications frequently require admission and may require intravenous antibiotics and/or surgical intervention. An awareness of unique presentations and complications of each disease aids in the disposition of patients with IBD.

### Ulcerative Colitis

Bloody diarrhea is the most common UC flare symptom. Those presenting with mild/moderate flares, as indicated by <6 bloody stools per day, and no signs of systemic toxicity should be safe for discharge with close outpatient gastroenterology follow-up [1].

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Signs of systemic toxicity include:

1. Abnormal vital signs (most commonly tachycardia or fever)
2. Abnormal examination findings (significant tenderness or signs of peritonitis)
3. Laboratory evidence of inflammatory changes or anemia

White blood cell count, C-reactive protein, and erythrocyte sedimentation rate may help guide medical decision-making and may indicate disease exacerbation and/or infection.

An acute severe flare requires inpatient management with IV corticosteroids and frequent monitoring for development of surgical disease. Early, aggressive management significantly decreases mortality in patients with acute UC flares [2]. Those with more advanced or refractory disease may require treatment with other immunomodulators during their inpatient stay [3]. Other important interventions during hospitalization include restoration of fluid and electrolyte balance. Additionally, withdrawal of medications such as opioids that promote colonic dilation should be considered, particularly in patients at risk for toxic megacolon [4]. Patients with significant systemic toxicity or suspected infection should receive antibiotics. Patients admitted for severe disease should have gastroenterology consultation when available and surgical consultation as needed.

UC puts patients at risk for toxic megacolon and bowel perforation. Toxic megacolon is a nonobstructive colonic dilation with associated systemic toxicity that is an acute surgical emergency. Patients usually present ill-appearing with severe abdominal pain. Transverse colon dilation  $\geq 6$  cm is diagnostic and may be visualized on plain radiograph. Prompt surgical consultation and initiation of broad-spectrum antibiotics are indicated when toxic megacolon is suspected.

## Crohn's Disease

Given the diverse array of presentations with CD, assessment of flare severity can be more complicated. Various grading systems have been developed to define severity, but they are of limited clinical utility [5, 6]. Providers can employ the patient's disease phenotype (age at diagnosis, predominant disease location, and disease behavior) in their decision-making. The most common presentations of CD are abdominal pain, diarrhea, nausea, and abdominal distention. In general, those who are tolerating PO, well appearing, and hemodynamically stable have a mild or

moderate flare and are usually safe for discharge with gastroenterology follow-up. Admission is indicated for unstable patients, those unable to tolerate PO, and those with acute surgical complications [7].

The transmural nature CD makes these patients particularly prone to fistula, stricture, and abscess formation, which may require urgent surgical management and colorectal surgery consultation [2]. Sometimes these complications can be managed in the outpatient setting.

CD patients frequently develop bowel obstructions, which may require surgical intervention if conservative measures fail.

## Medication Side Effects and Extra-Intestinal Symptoms

Acute care providers must consider extra-intestinal or medication-related symptoms in IBD patients. Many of these complications, such as uveitis and pathologic fractures, are not life-threatening and can be evaluated, treated, and discharged. IBD patients have higher rates of biliary disease, pulmonary embolism, deep vein thrombosis, and coronary artery disease than the general population [8].

Providers should note that IBD patients with presentations seemingly unrelated to IBD often have worse outcomes than other patients. For example, IBD patients with urinary calculi are more likely to have associated sepsis, renal failure, and UTI than non-IBD patients [9].

Careful consideration must be taken when evaluating and discharging IBD patients presenting with extra-intestinal symptoms.

The acute management of IBD is a complicated and controversial topic with clinical challenges for both acute care providers and experienced specialists. Due to the potential morbidity and mortality of IBD, providers should have a low threshold to involve consultants in the management of these patients.

### Suggested Resources

- Burg MD, Riccoboni ST. Management of inflammatory bowel disease flares in the emergency department. *Emerg Med Pract.* 2017;19(11):1–20.
- Carlberg DJ, Lee SD, Dubin JS. Lower abdominal pain. *Emerg Med Clin North Am.* 2016;34(2):229–49.
- Huang M, Rose E. Pediatric inflammatory bowel disease in the emergency department: managing flares and long-term complications. *Pediatr Emerg Med Pract.* 2014;11(7):1–16.

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9. Varda BK, McNabb-Baltar J, Sood A, Ghani KR, Kibel AS, Letendre J, Menon M, Sammon JD, Schmid M, Sun M, Trinh QD, Bhojani N. Urolithiasis and urinary tract infection among patients with inflammatory bowel disease: a review of US emergency department visits between 2006 and 2009. *Urology*. 2015;85(4):764–70.