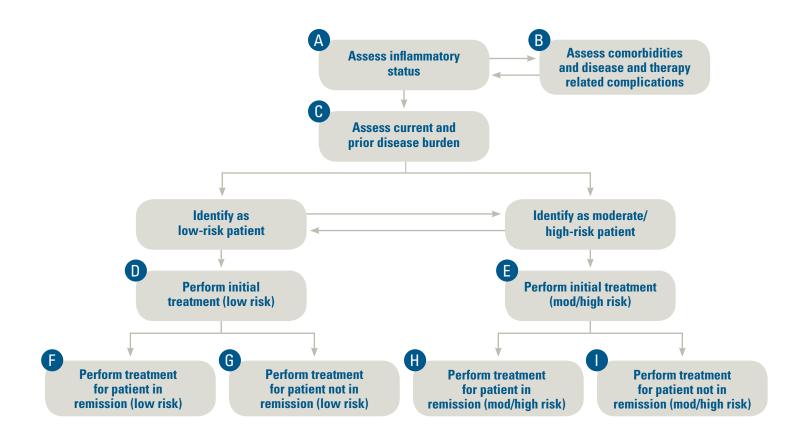
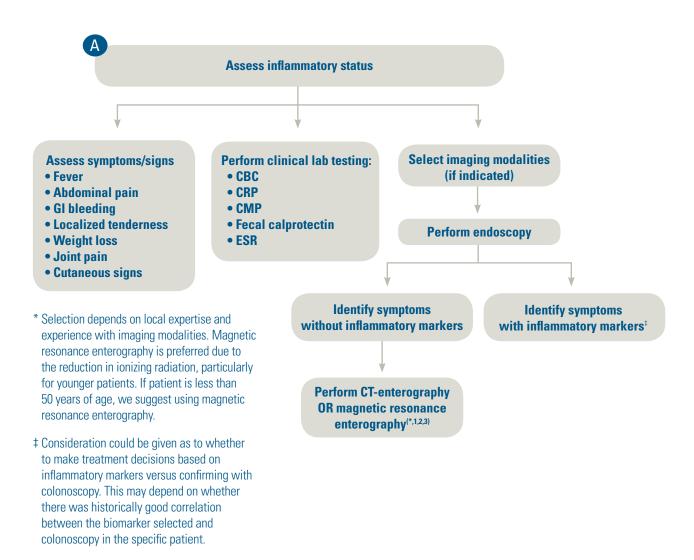
AGA INSTITUTE GUIDELINES FOR THE

Identification, Assessment and Initial Medical Treatment in Crohn's Disease

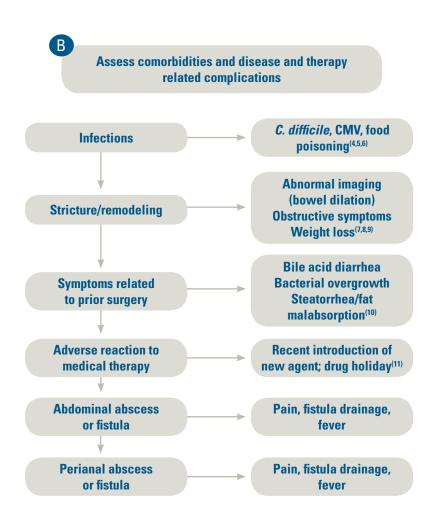
CLINICAL DECISION SUPPORT TOOL















Assess current and prior disease burden

Identify patient as low risk(12)

- Age at initial diagnosis > 30 years
- Limited anatomic involvement
- No perianal and/or severe rectal disease
- Superficial ulcers
- No prior surgical resection
- No stricturing and/or penetrating behavior

Identify patient as moderate/high risk(12)

- Age at initial diagnosis < 30 years
- Extensive anatomic involvement
- Perianal and/or severe rectal disease
- Deep ulcers
- Prior surgical resection
- Stricturing and/or penetrating behavior

Perform initial treatment



Low-risk patient

lleum and/or proximal colon — none to minimal systemic symptoms

Options:

- Budesonide 9 mg per day with or without AZA
- Tapering course of prednisone with or without AZA

Diffuse or left colon — none to minimal systemic symptoms

Options:

Tapering course of prednisone with or without AZA



Mod/high-risk patient§

Moderately severe Crohn's

Options:

- Use anti-TNF monotherapy over no therapy or thiopurine monotherapy⁽¹³⁾
- Use anti-TNF + thiopurine over thiopurine monotherapy or anti-TNF monotherapy⁽¹³⁾
- Use methotrexate for patients who do not tolerate purine analog in combination with anti-TNF
- S Combination therapy with immunosuppressant and anti-TNF biologic offers improved efficacy and durability compared with anti-TNF monotherapy and should be considered for mod/high-risk patients requiring 2nd or 3rd biologic.





Perform treatment for patient in remission



Low-risk patient

W

Mod/high-risk patient#

Options:(14)

- Stop therapy and observe (high chance of relapse over 1 year)
- Budesonide 6 mg/day (median time to relapse prolonged by approximately 114 days, but no difference in remission rates versus placebo at 1 year)*
- Immunosuppressive therapy (AZA, 6MP and MTX have been shown to be effective for maintaining steroid-induced remissions with prednisone or prednisolone, but are associated with rare risk of infection and lymphoma)
- *Consider bone mineral density monitoring

Steroid induced remission⁽¹³⁾

Options:

- Use immunomodulator (thiopurine or MTX) over no immunomodulator
- Use anti-TNF +/- thiopurine over no anti-TNF

Anti-TNF or anti-TNF + thiopurine induced remission⁽¹³⁾

 Use anti-TNF +/- thiopurine over no anti-TNF

Remains in remission for 6 months

Define resolution of inflammation and ulcers

Re-assess inflammatory markers every 3 months

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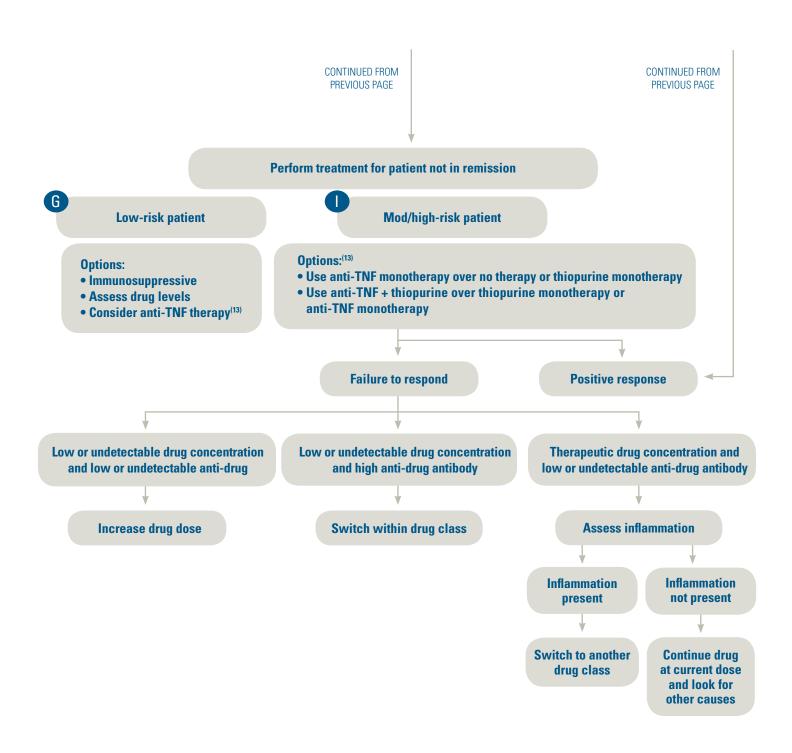
Does not remain in remission for 6 months

#Combination therapy with immunosuppressant and anti-TNF biologic offers improved efficacy and durability compared with anti-TNF monotherapy and should be considered for mod/high-risk patients requiring 2nd or 3rd biologic.

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NOTE: Clinicians should regularly reassess treatment strategy to aim for control of symptoms and inflammation and to minimize future complications.

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References

¹Bruining DH, Siddiki HA, Fletcher JG, Sandborn WJ, Fidler JL, Huprich JE, Mandrekar JN, Harmsen WS, Evans PE, Faubion WA, Hanson KA, Ingle SB, Pardi DS, Schroeder KW, Tremaine WJ, Loftus EV. Benefit of computed tomography enterography in Crohn's disease: effects on patient management and physician level of confidence. Inflammatory Bowel Diseases 2012;18:219-225.

²Solem CA, Loftus EV, Fletcher JG, Baron TH, Gostout CG, Petersen BT, Tremaine WJ, Egan LJ, Faubion WA, Schroeder KW, Pardi DS, Hanson KA, Jewell DA, Barlow JM, Fidler JL, Huprich JE, Johnson CD, Harmsen WS, Zinsmeister AR, Sandborn WJ. Small-bowel imaging in Crohn's disease: a prospective, blinded, 4-way comparision trial. Gastrointestinal Endoscopy 2008;68:255-266.

³Higgins PD, Caoili E, Zimmermann M, Bhuket TP, Sonda LP, Manoogian B, Platt JF, Zimmermann EM. Computed tomographic enterography adds information to clinical management in small bowel Crohn's disease. Inflammatory Bowel Diseases 2007;13:262-268.

⁴Issa M, Vijayapal A, Graham MB, Beaulieu DB, Otterson MF, Lundeen S, Skaros S, Weber LR, Komorowski RA, Knox JF, Emmons J, Bajaj JS, Binion DG. Impact of Clostridium difficile on inflammatory bowel disease. Clinical Gastroenterology and Hepatology 2007;5(3):345-51.

⁵Lawlor G, Moss AC. Cytomegalovirus in inflammatory bowel disease: pathogen or innocent bystander? Inflammatory Bowel Diseases 2010;16(9):1620-7.

⁶Meyer AM, Ramzan NN, Loftus EV Jr, Heigh RI, Leighton JA. The diagnostic yield of stool pathogen studies during relapses of inflammatory bowel disease. Journal of Clinical Gastroenterology 2004;38(9):772-5.

⁷Swoger JM, Binion DG. Supportive therapy in IBD: what additional diagnoses and conditions must be treated? Digestive Diseases 2010;28(3):452-62.

Otterson MF, Lundeen SJ, Spinelli KS, Sudakoff GS, Telford GL, Hatoum OA, Saeian K, Yun H, Binion DG. Radiographic underestimation of small bowel stricturing Crohn's disease: a comparison with surgical findings. Surgery 2004;136(4):854-60.

⁹Wold PB, Fletcher JG, Johnson CD, Sandborn WJ. Assessment of small bowel Crohn disease: noninvasive peroral CT enterography compared with other imaging methods and endoscopy--feasibility study. Radiology 2003;229(1):275-81.

¹⁰Hofmann AF, Poley JR. Role of bile acid malabsorption in pathogenesis of diarrhea and steatorrhea in patients with ileal resection. I. Response to cholestyramine or replacement of dietary long chain triglyceride by medium chain triglyceride. Gastroenterology 1972;62(5):918-34.

¹¹Bajaj JS, Saeian K, Varma RR, Franco J, Knox JF, Podoll J, Emmons J, Levy M, Binion DG. Increased rates of early adverse reaction to azathioprine in patients with Crohn's disease compared to autoimmune hepatitis: a tertiary referral center experience. American Journal of Gastroenterology 2005;100(5):1121-5.

¹²Ordás I, Feagan B, Sandborn WJ. Early use of immunosuppressives or TNF antagonists for the treatment of Crohn's disease: time for a change. Gut 2011;60:1754-1763.

 13 Terdiman JP, Gruss CB, Heidelbaugh JJ, Sultan S, Falck-Ytter YT. American Gastroenterological Association Institute Guideline on the use of Thiopurines, Methotrexate, and Anti-TNF- α Biologic Drugs for the Induction and Maintenance of Remission in Inflammatory Crohn's Disease. Gastroenterology 2013;145:1459-1463.

¹⁴Sandborn WJ, Feagan BG, Lichtenstein GR. Medical management of mild to moderate Crohn's disease: evidence-based treatment algorithms for induction and maintenance of remission. Alimentary Pharmacology & Therapeutics 2007;26:987-1003.



