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Jointly provided by the Annenberg Center for Health Sciences at Eisenhower and Gastroenterology and Hepatology Advanced Practice Providers.
Updates in Ulcerative Colitis

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North Shore Gastroenterology
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Gabriella McCarty, RN, MSN, NP-C

Speakers Bureau: AbbVie, Clinical Area- IBD

Speakers Bureau: Allergan/Abbvie, Clinical Area- IBS-D, IBS-C, CIC

Speakers Bureau: Pfizer, Clinical Area- IBD

Speakers Bureau: Salix, Clinical Area- IBS, HE

Speakers Bureau: Janssen, Clinical Area- IBD
Objectives

• Overview of ulcerative colitis (UC)
• Review current clinical treatment guidelines for UC
• Discuss upcoming diagnostics and treatment
• What is the role of APPs in UC patients
Diagnosing UC

- Most common symptoms are rectal bleeding, urgency, tenesmus
- Rule out infectious causes of diarrhea (stool cultures, parasite screen, *C diff*, lactoferrin)
- Fecal calprotectin - noninvasive stool test that is a specific marker of inflammation indicative of disease activity and used to assess response and relapse of therapy
- Colonoscopy to ileum (*with biopsies of affected and unaffected areas*)
- Disease severity assessed by patient reported improvement of symptoms, endoscopic assessment of inflammation, disease course/treatment and disease impact of quality of life

Types of Ulcerative Colitis

TYPES OF ULCERATIVE COLITIS

- Proctitis
- Proctosigmoiditis
- Distal colitis
- Extensive colitis
- Pancolitis
Symptoms Depend on Location

• Proctitis – constipation, tenesmus, rectal bleeding
• Proctosigmoiditis/left sided colitis – blood, mucous, frequency, urgency
• Pancolitis – passing only blood, abdominal pain, frequency, urgency, anemia, fatigue, anorexia, weight loss
Pathology

- Limited to mucosa and submucosa of rectum and colon
- Distal, continuous involvement of colon
- Numerous ulcers with regenerating mucosa “pseudopolyps”, fissures, loss of vascular pattern, friable
- Neutrophil granulocyte formation
- Cryptitis
Mayo Score in UC Endoscopy

<table>
<thead>
<tr>
<th>UCEIS Score</th>
<th>Mayo Score</th>
<th>Endoscopic Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>Normal</td>
</tr>
<tr>
<td>1-3</td>
<td>1</td>
<td>Erythema, decreased vascular pattern, mild friability</td>
</tr>
<tr>
<td>4-6</td>
<td>2</td>
<td>Marked erythema, absent vascular pattern, friability, erosions</td>
</tr>
<tr>
<td>7-8</td>
<td>3</td>
<td>Spontaneous bleeding, ulceration</td>
</tr>
</tbody>
</table>

Figure 1. Sample endoscopic images of ulcerative colitis using the Mayo endoscopic subscore (49) and the Ulcerative Colitis Endoscopic Index of Severity (41). (Images courtesy of David T. Rubin, MD.)
Extraintestinal Manifestations

- Arthritis (20%)
- Ankylosing spondylitis (3-5%)
- Erythema nodosum (10-15%)
- Pyoderma gandrenosum (rare)
- Primary Sclerosing Cholangitis (10%)
What if UC Is Not Controlled?

• Significant morbidity and low incidence of mortality
• More likely to have psychological conditions of anxiety and depression and impaired social interactions or career progression
• Increased risk of dysplasia and colorectal cancer

What Is the Goal?

• Inducing and maintaining both clinical and endoscopic remission
• Steroid-free remission
• Therapy is chosen based on activity, severity, extent of inflammation, prognostic factors
UC Treatment Pyramid

- Nutritional support
- Probiotics

- Step-up approach

Surgery

Biologic therapy

Immunosuppressants

Prednisone, budesonide

AZN, mesalamine oral, enema, supp

Steroids

5-ASA

Antibiotics

Top-down approach

IBD Clinic 2020.
## Moderate-Severe UC Biologic Treatment

<table>
<thead>
<tr>
<th>Category</th>
<th>Treatment</th>
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</thead>
<tbody>
<tr>
<td>Anti-TNF</td>
<td>Infliximab, adalimumab, golimumab (biosimilars available for infliximab, adalimumab)</td>
</tr>
<tr>
<td>Anti-integrins</td>
<td>Vedolizumab</td>
</tr>
<tr>
<td>JAK inhibitor</td>
<td>Tofacitinib</td>
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<tr>
<td>Interleukin-12/23 antagonist</td>
<td>Ustekinumab</td>
</tr>
<tr>
<td>Immunomodulators</td>
<td>Thiopurines, methotrexate</td>
</tr>
</tbody>
</table>

## Emerging UC Treatment

- **Anti-integrins** Etrolizumab, abrilumab, AJM300, E6007
- **Anti-interleukins** Mirikizumab, brazikumab
- **JAK inhibitors** Upadacitinib, filgotinib, itacitinib, SHR0302
- **JAK 3 inhibitor/TYK2/Jak 1** PF-06651600/06700841
- **Pan-Jak** TD-1473/3504
- **S1P receptor modulators** Ozanimod, etrasimod
- **PSGL-1 agonist** Neihulizumab
- **DHODH inhibitor** IMU-83

<table>
<thead>
<tr>
<th>DNA based synthetic immunomodulatory agent</th>
<th>Cobitolimod</th>
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<tbody>
<tr>
<td><strong>Microbial therapies</strong></td>
<td>FMT, SER-287</td>
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<tr>
<td><strong>Stem cell therapy</strong></td>
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<tr>
<td><strong>Anti-MadCAM-1</strong></td>
<td>SHP647</td>
</tr>
<tr>
<td><strong>REV inhibitor</strong></td>
<td>ABX464</td>
</tr>
<tr>
<td><strong>Adenine A3 inhibitor</strong></td>
<td>PBF-677</td>
</tr>
<tr>
<td><strong>IL-6 inhibitor</strong></td>
<td>Olamkicept</td>
</tr>
<tr>
<td><strong>IL-22fc</strong></td>
<td>UTTR1147A</td>
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</tbody>
</table>

- **Anti-IL 36** BI 655130
- **Anti-CD40** ABBV-323
- **LANCL2** BT-11
- **RIP1 kinase inhibitor** GSK2982772
- **Anti-OX40** KHK4083
- **TNFSF15 blocker** PF06480605
Guidelines in UC

ACG Clinical Guideline: Ulcerative Colitis in Adults

David T. Ricci, MD, FACG; Anastasios Kopterides, MD, MPH; Corey A. Segal, MD, MSc; Bryan G. Saik, MD, MS; Don Ross, FACG; GGC: Methodology; and Mike D. Long, MD, MPH, FACG

Ulcerative colitis (UC) is an idiopathic inflammatory disorder. These guidelines indicate the preferred approach to the management of adults with UC and express the official practice recommendations of the American College of Gastroenterology (ACG). The evidence for these guidelines was evaluated using the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) process. In instances where the evidence was not appropriate for GRADE, but there was consensus of significant clinical merit, “key concept” statements were developed using expert consensus. These guidelines are meant to be broadly applicable and should be viewed as the preferred, but not only, approach to clinical scenarios.

CLINICAL PRACTICE GUIDELINES

UCG Clinical Practice Guidelines on the Management of Moderate to Severe Ulcerative Colitis

Joseph D. Feuerstein, Kim L. Isaacson, Yehuda Shoenfeld, Yehuda Shoenfeld, Gastroenterology 2018;156:844-81 https://doi.org/10.1053/j.gastro.2018.01.012, published online February 21, 2018

INTRODUCTION

Ulcerative colitis (UC) is a chronic disease affecting the large intestine, with an increasing incidence worldwide. Nearly 1 million individuals each in the United States and Europe are affected by this condition and many more globally. Over the past decade, the publication of the last guideline from the American College of Gastroenterology (ACG) on this topic, the management of disease has grown increasingly complex with availability of additional therapeutic classes. In addition, algorithms for initiating, optimizing, and monitoring response to existing therapies have undergone considerable evolution.

UC is a chronic immune-mediated inflammatory condition of the large intestine that is frequently associated with inflammation of the rectum but often extends proximally to involve additional areas of the colon. The absence of rectal involvement has been noted in fewer than 70% of adult patients with UC at diagnosis but may be seen in up to one-third of pediatric-onset UC (1). The clinical presentations of mild UC are characterized by symptoms of an inflamed rectum, namely, bleeding, urgency, and tenesmus (a sense of pressure). The condition may present at any time and at all ages, but there is a predominant age distribution of onset that peaks between ages 15 and 30 years. The pattern of disease activity is most often described as relapsing and remitting, with symptoms of active disease alternating with periods of clinical quiescence, which is called remission. Some patients with UC have persistent disease activity despite medical therapy, and a small number of patients present with the rapid onset of severe illness typical of type of ulcerative colitis fulminant (2,3). UC causes significant morbidity and a shortened life expectancy of mortality (4,5). Patients with active disease are more likely to have complicated medical conditions of anxiety and depression and are more likely to have impaired social interactions or career progression. Long-standing UC is also associated with a defined risk of malignancy and colorectal cancer, which is believed to be related to long-standing uncontrolled inflammation (7–10).

Management of UC must involve a prompt and accurate diagnosis, assessment of the patient’s risk of poor outcomes, and initiation of effective, safe, and tolerable medical therapies. The goal of optimal management is a sustained and durable period of steroid-free remission, accompanied by appropriate psychosocial support, norm for health-related quality of life (QoL), prevention of morbidity including hospitalization and surgery, and prevention of cancer. An ongoing goal in UC management is that of mucosal healing. To achieve these goals, understanding of the most effective diagnostic test, treatment, and preventive strategies is necessary (11). As with any medical decision making, involvement of the patient preferences forms an important component of care.

This clinical guideline addresses the diagnostic, treatment, and overall management of adult patients with UC, including an approach to the evaluation of the hospitalized patient and a separate section on colorectal cancer prevention. Additional recommendations regarding patient care in inflammatory bowel disease (IBD) have been published by the ACG previously (12).

The guideline is structured in sections, with each recommendation, key outcome statements, and summaries of the evidence. Each recommendations statement has an associated assessment of the quality of evidence and strength of recommendation based on the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) process. The GRADE system was used to evaluate the quality of supporting evidence (Table 1) (13). A “strong” recommendation is one that provides the benefits clearly outweigh the risks and the need for action. “Conditioned” is used when some controversy remains about the balance of benefits and potential harms.

The quality of the evidence is graded based on low to high. (“Strong” recommendations are based on “high” or “very high” quality evidence. Further research is unlikely to change the authors’ confidence in the estimate of effect, and there are very small indications that our true effect

Guidelines in UC
## Timing

Early biologic therapy in moderate-severe disease, especially in the setting of high-risk features

## Selection

Infliximab and vedolizumab favored (based on most studies)

## Safety considerations

- Anti-TNF therapy ~ very low absolute rate of risks; immunogenicity likely under recognized
- Newer biologic therapies (ustekinumab, vedolizumab) ~ excellent safety profile, which may favor selection
- Tofacitinib ~ multiple risks demonstrated, esp risk of PE, not recommended first line

## Special circumstances

- Acute severe UC- infliximab favored if response to salvage therapy with infliximab
- Associated systemic condition- systemic therapy favored, anti-TNF, ustekinumab, tofacitinib

## Other considerations

Favorable safety profile, cost and insurance barriers, patient preference, optimization with proactive TDM
## Comparative Effectiveness Studies in UC

<table>
<thead>
<tr>
<th>Study</th>
<th>Study Type</th>
<th>Outcomes</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singh et al.</td>
<td>Network meta-analysis</td>
<td>Induction of remission</td>
<td>Infliximab and vedolizumab superior to adalimumab and golimumab</td>
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<tr>
<td></td>
<td></td>
<td>Mucosal healing</td>
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<tr>
<td>Singh et al.</td>
<td>Network meta-analysis</td>
<td>Induction of remission</td>
<td>Infliximab superior to vedolizumab, tofacitinib and ustekinumab</td>
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<tr>
<td></td>
<td></td>
<td>Endoscopic improvement</td>
<td></td>
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<tr>
<td>Bonovas et al.</td>
<td>Network meta-analysis</td>
<td>Clinical response, clinical</td>
<td>Infliximab superior to adalimumab, golimumab</td>
</tr>
<tr>
<td></td>
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<td>remission, mucosal healing</td>
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<tr>
<td>Singh et al.</td>
<td>Propensity score-matched retrospective analysis of administrative claims</td>
<td>Corticosteroid use</td>
<td>Infliximab superior to adalimumab</td>
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<tr>
<td></td>
<td>data</td>
<td></td>
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<tr>
<td>Singh et al.</td>
<td>Propensity score-matched retrospective analysis of nationwide cohort</td>
<td>All-cause hospitalization</td>
<td>Infliximab superior to adalimumab</td>
</tr>
<tr>
<td>Cholapranee et al.</td>
<td>Meta-analysis</td>
<td>Induction of mucosal healing</td>
<td>Infliximab superior to adalimumab</td>
</tr>
<tr>
<td>Faleck et al.</td>
<td>Propensity score-matched analysis of VICTORY Consortium</td>
<td>Clinical remission</td>
<td>Vedolizumab superior to anti-TNF agents</td>
</tr>
<tr>
<td>Sands et al.</td>
<td>Prospective RCT (VARSITY)</td>
<td>Clinical remission, endoscopic</td>
<td>Vedolizumab superior to adalimumab-endoscopic improvements; no difference in steroid-free</td>
</tr>
<tr>
<td></td>
<td></td>
<td>improvement, steroid-free remission</td>
<td>remission</td>
</tr>
</tbody>
</table>

Emerging Diagnostics

- Need for identifying biomarkers predictive of response to individual therapies, facilitate optimal positioning of therapies
- Limited evidence regarding combination therapy of biologics and immunomodulators, especially with newer agents with lower immunogenicity and with better optimization of biologic agents through therapeutic drug monitoring
- Proposed treatment targets have moved beyond symptomatic improvement towards more objective end points, such as healing of the intestinal mucosa
  - This treat-to-target approach has been associated with improved disease outcomes such as diminished bowel damage, surgery and hospitalizations
  - Many patients with IBD require biologic therapy to achieve and maintain clinical and endoscopic remission, and antitumor necrosis factor antibodies remain the first-line biologic therapy in most areas of the world
  - Unfortunately, up to 1/3 of patients receiving this treatment are primary non-responders, and some patients that show an initial response can also lose response over time
  - TDM has been suggested as a useful tool to manage treatment, including monitoring for dose escalation, de-escalation or to switch treatment

What Is This “Immunogenicity”

• Immunogenicity is recognized as a leading contributor to the loss of response to biologic therapies; as biologic agents are large, complex proteins, they trigger the formation of anti-drug antibodies (ADAs) specific to the agent administered.

• It is recommended that patients who develop ADAs to a biologic therapy, with a consequent loss of response, should switch to a different agent with either the same or a different mechanism of action.

• Giving biologic therapies in combination with concomitant immunosuppressive agents has been shown in several studies to reduce the development of ADAs.

Therapeutic Drug Monitoring

• Used to check the drug trough concentration and assess for the presence of anti-drug antibodies

• Can be performed at any point of therapy in induction or maintenance

• Can be routine proactive when patient in remission or reactive during symptoms

• Available for all biologics (commonly anti-TNFs) and thiopriness

• Drug failure can be 1) mechanistic, 2) non-immune-mediated pharmacokinetic or 3) immune-mediated pharmacokinetic

• Future – pharmacogenomics – drug-gene testing

Feuerstein J et al. Gastroenterology. 2017 (153); 827-834.
M.W. is a 24 y/o WM first seen in February of 2020 with intermittent bright red blood in his stools x 1 year with occasional diarrhea/constipation

- No past medical or surgical hx, no prior colon
- No FHX of CRC, IBD
- Social: Works as a police office for the City of Cleveland, single
- Saw PCP and DRE was neg
- Med list: MVI, fish oil, biotin, flax seed
- No NSAIDs
Case Study

• Plan – Colonoscopy, CBC/CMP/ESR/CRP

• Findings – Labs wnl; colon done 3 days after OV showed severe proctitis

• Plan – mesalamine 1000mg supp qhs x 1 week then qohs; repeat FS in 6 months
Case Study – Pathology Findings

RECTUM, BIOPSIES:
CHRONIC ACTIVE COLITIS WITH ULCER AND REGENERATIVE EPITHELIAL CHANGES.

COMMENT: The biopsy consists of several fragments of rectal mucosa with a marked basal lymphoplasmacytosis, crypt architectural disarray and diffuse cryptitis. The findings are highly suspicious for primary inflammatory bowel disease, although clinical and endoscopic correlation is recommended for a definitive diagnosis. There is no evidence of granulomas, dysplasia or malignancy.
Case Study – Fast Forward

- June 2020 – Patient seen in the office for worsening S/S. Turns out he only took the mesalamine supp x 9 days (too expensive), but had felt better with them immediately. Got new insurance and resumed 2 weeks prior to this visit.

- Symptoms: Severe cramps, bloating, bloody diarrhea every hour, nocturnal as well, lost 15#. Mucous in stool.

- Increased stress at work (Cleveland Police Officer, worked 12 straight hours downtown riots on Saturday). Sat fever 102. No temp now. Hardly eating. Past week also using ibuprofen 600mg, 2 daily.
Case Study

- Plan – FS planned for the following day, check CBC/CMP/ESR/CRP and fecal calprotectin. Continue mesalamine 1000mg supp qhs but add Prednisone 40mg PO daily with a taper dose of 10mg weekly. Stop NSAIDs. Fluid/electrolyte replacement.

- Findings – Labs WBC 11.74, H&H 35.6/11.5, PLT 479, Alb 3.3, ESR 54, CRP 11.1, Fecal Cal 1,103.9; Colon showed severe pancolitis UC (Mayo score 3).

- Plan – Increase Prednisone to 60mg, start Remicade 10mg/kg ASAP, Imuran 100mg PO daily, repeat colon in 6 months.
Case Study – Pathology Findings

Part A - ascending colon

A. ASCENDING COLON, BIOPSY: MARKED CHRONIC ACTIVE COLITIS WITH ULCER, NEGATIVE FOR DYSPLASIA.

B. SIGMOID COLON, BIOPSY: CHRONIC ACTIVE COLITIS WITH EROSION, NEGATIVE FOR DYSPLASIA.
Case Study

- Remicade started 3 days after colonoscopy at 10mg/kg (1000mg), plan for 0, 2, 6 weeks then q8 weeks
- OV 2 days after first Remicade infusion, already improvement in sx. Mesalamine supp DC’d. Prednisone kept at 60mg x 1 week, then decreased to 40mg with 10mg weekly taper dose
- OV 2 weeks later, after 2\textsuperscript{nd} Remicade infusion, feels significantly better, feels like a "whole new person". Denies abdominal discomfort. He has 3-4 formed stools daily
- We gave him a work excuse x 3 weeks
- Currently doing very well…
Poor Prognostic Factors in UC Disease Severity

- Age <40 at diagnosis
- Extensive colitis, deep ulcers, severe endoscopic disease (Mayo subscore 3)
- Hospitalization for colitis
- Cdiff and CMV infection
- Elevated CRP/ESR
- Low serum albumin
- Steroid dependent disease
- The greater the number of poor prognostic factors, the worse the prognosis as measured by likelihood of colectomy
- Early initiation of biologics in UC may help prevent complications, such as colon cancer, hospitalizations and surgery

Predicting Severity?

- The ACE (Albumin, CRP and Endoscopy) Index in Acute Colitis

- More than three quarters of patients scoring 3 (albumin ≤30 g/L, CRP ≥50 mg/L, and increased endoscopic severity) did not respond to IV steroids

- This combination of parameters (ACE) identifies on admission a high-risk population who may benefit from earlier second-line medical treatment or surgical intervention

The International Organization for the Study of Inflammatory Bowel Disease (IOIBD) recently published consensus guidance that includes consuming a diet composed of carbohydrates, fats, and protein and limiting intake of processed foods and artificial sweeteners, while avoiding trans fats. We encourage patients with inactive IBD to eat a balanced diet.

Malnutrition in patients with IBD can lead to weight loss, growth failure in children, bone disease, and/or micronutrient deficiencies.
## Monitoring

**Suggested laboratory tests for monitoring nutrition in patients with inflammatory bowel disease**

<table>
<thead>
<tr>
<th></th>
<th>Ulcerative colitis</th>
<th>Crohn disease or indeterminate colitis</th>
<th>Conditional testing*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete blood count</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>CRP, ESR†</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Albumin†</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>25-hydroxyvitamin D</td>
<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>Iron, ferritin, TIBC</td>
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<td>X</td>
<td></td>
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<tr>
<td>Vitamin B12</td>
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<td>X</td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Phosphorus</td>
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<td>X</td>
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<tr>
<td>Magnesium</td>
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<tr>
<td>Vitamin A</td>
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<td>X</td>
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<tr>
<td>Vitamin E</td>
<td></td>
<td>X</td>
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<tr>
<td>PT or INR</td>
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<tr>
<td>Zinc</td>
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<td>X</td>
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</tr>
<tr>
<td>Folate</td>
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<td>X</td>
<td></td>
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<tr>
<td>DXA scanning†</td>
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<td>X</td>
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</table>

The above tests and frequencies reflect the author’s practice and may vary among providers. We perform these tests approximately every 6 to 12 months in patients with quiescent disease and may test more frequently in patients with active disease or known deficiency or in growing children.

* CRP, ESR, and albumin primarily reflect the inflammatory state rather than nutritional status. This information is important for the interpretation of the other results, especially ferritin, which is increased in the setting of inflammation.

† CRP, ESR, and albumin primarily reflect the inflammatory state rather than nutritional status. These tests are performed in the case of malnutrition, malabsorption, symptoms of deficiency, or specific risk factors (e.g., anemia, ileal resection, total parental or enteral nutrition, prolonged diarrhea, or a high-output ostomy).

‡ DXA scanning is recommended in adults with risk factors for bone disease, including prolonged corticosteroid use or low-trauma fracture (refer to UpToDate content on metabolic bone disease in inflammatory bowel disease). There are no generally accepted standards for frequency of DXA scanning in children with inflammatory bowel disease.

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**Health Maintenance Summary**

### Vaccines and Infections

**Influenza:** All patients ≥6 months of age should receive annual inactivated influenza vaccine, irrespective of immunosuppression status.

**MMR:** Patients not immune to MMR should receive a 2-dose series, at least 4 weeks apart. If immune status is uncertain, IgG antibody titer should be checked. MMR should not be given to patients currently on systemic immunosuppressive therapy.

**Pneumococcus:** All patients ≥19 years age receiving systemic immunosuppression should receive PCV13, followed by PPV23 at least 8 weeks later, and a booster of PPV23 5 years later.

### Cancer Screening

**Colon/Rectal Cancer:** All IBD patients with extensive colitis (>3/5 of the colon) for ≥8 weeks should undergo surveillance colonoscopy every 1–3 years, depending on cancer risk.

- IBD patients with a diagnosis of PSC should undergo colonoscopy, starting at the time of PSC diagnosis, and annually thereafter.

- IBD patients with features that are high-risk for developing colon cancer (i.e., prior history of adenomatous polyps, dysplasia, family history of colorectal cancer and extensive colitis) should have colonoscopies more frequently than every 3 years.

### Other Protection

**Osteoporosis:** Screen for osteoporosis by central (hip and spine) DXA scan in all patients with IBD if any risk factors for osteoporosis: low BMI, >3 months cumulative steroid exposure, smoker, post-menopausal, hypercortisolism. Repeat in 5 years if initial screen is normal.

**Cervical Cancer:** All women with IBD who are being treated with systemic immunosuppression should undergo cervical cancer by cytology annually (if not HPV negative). If HPV positive, screen at 1-year intervals.

**Skin Cancer:** All IBD patients being treated with systemic immunosuppression should have annual full body skin exams to screen for skin cancer.

**Depression/Anxiety:** Screen all patients with IBD for depression (PHQ-9) and anxiety (GAD-7) at baseline, and annually. Refer for counseling/therapy when identified.

**Smoking:** Screen all patients with IBD for smoking status at baseline, and refer current smokers for smoking cessation therapy.
CRC Prevention in UC

• Screening and surveillance colonoscopy to assess for dysplasia in patients with UC extent greater than rectum to start 8 years after initial diagnosis

• If UC and PSC, then colon annually

• Surveillance every 1-3 years based on combined CRC risk factors in UC and findings on previous colonoscopy

• During colon, identify raised lesions and abnormal pit patterns and perform targeted biopsies (unclear whether segmental random biopsies or still required)

• Fecal DNA testing and CT colonography are not recommended

COVID 19 and IBD

- IBD itself does not increase the risk of COVID-19.
- Being on immune therapies for IBD may increase the risk for some infections, but the currently available information does not show an increased risk of infection with SARS-CoV-2 or development of COVID-19 in individuals with IBD or who are on the standard therapies. However, it is helpful to clarify which medications affect the immune system and which ones do not (immunosuppressive agents include steroids, 6MP, MTX, anti-TNFs, Anti-IL 12/23, Anti-integrin, JAK inhibitors).
- Treatments that do NOT suppress your immune system (5ASAs, antibiotics, diet).
- Keeping your IBD in remission is believed to be protective against COVID-19, but also healthier for you. Needing steroids or hospitalization for a relapse is never an ideal situation, but especially now when medical resources may be strained.
- Stay on your IBD medications. Flares or needing to take steroids may put you at greater risk than taking your other IBD medications.
Guidance in managing IBD therapy in setting of Covid-19

• **No symptoms, no testing**
  Do not withhold IBD therapies, try to dose reduce steroids

• **No symptoms, positive test**
  Withhold IBD therapy for a minimum of 10 days. If no symptoms of Covid-19, resume IBD therapy

• **Positive test for SARS-CoV-2 and symptoms of Covid-19**
  When to restart- Symptom based strategy:
  1. ≥10 days have passed since Covid-19 symptoms onset and
  2. ≥ 3 days (72 hours) have passed since recovery- defined as resolution of fever without use of fever-reducing medications and improvement in respiratory symptoms (eg, cough, SOB)
  3. In severe Covid-19, a greater time frame from recovery may be appropriate depending on severity of IBD and need to re-start medication

• If test-based strategy is required, the above clinical parameters must be met PLUS 2 consecutive negative Covid tests taken 24 hours apart

Adapted from OIBD Recommendations: Best practice guidance for when to re-start IBD therapy in patients who have had confirmed or suspected Covid-19
Role of APPs

- More frequent office visits
- Monitoring/managing medications
- Monitoring nutritional status
- Smoking cessation
- Contraception/pregnancy
- Vaccinations
- Lab monitoring
- Dexa scans
Keep in Mind!

- Evaluating UC during relapses should include assessment of severity of symptoms and potential triggers
  - Enteric infections (particularly *C diff*)
  - NSAID use
  - Recent smoking cessation
  - Non-adherence to therapy
Don’t Forget the Crohn’s Colitis Foundation!

- Crohnscolitisfoundation.org
  - Professionals
  - For your patients
  - Appeal letters

- Plethora of information including school/employment accommodations, disability, financial resources, medication dose escalations, prior authorization letters, other testing including fecal calprotectin, etc...(references professional journal articles)
Thank You!

Our usual colonoscopy equipment is down today, so we’re going to be using a tapeworm with a GoPro strapped to its head.