Endoluminal Markers Predict Crohn's Treatment Failure

Written by The Life Science Feed Editorial Team · Published 1 January 2026 · Edited by Mara Voss

> Certain endoscopic features, assessed at baseline or early in treatment, may identify Crohn's disease patients at risk for loss of response to therapy. This potential refinement to existing guidelines could help clinicians target more aggressive initial approaches or closer monitoring for high-risk individuals.

KEY TAKEAWAYS

- lightbulb
- The Pivot: This study suggests we can proactively risk-stratify Crohn's patients based on colonoscopic findings, potentially preventing loss of response. This goes beyond the traditional 'wait and see' approach after starting a new therapy.
- The Data: Specific parameters, like the presence of ulcers or a high Simple Endoscopic Score for Crohn’s Disease (SES-CD), were associated with an increased risk of primary non-response or loss of response to anti-TNF therapy.
- The Action: When performing a colonoscopy on a Crohn's patient initiating or already on anti-TNF therapy, meticulously document endoluminal features like ulcer characteristics and SES-CD. Use this information to guide more frequent monitoring and potentially earlier treatment intensification.

Guideline Context

Current guidelines from the American Gastroenterological Association (AGA) and the European Crohn's and Colitis Organisation (ECCO) push for a treat-to-target approach in Crohn's disease, aiming for clinical and endoscopic remission. These are standard recommendations.

But, no validated endoluminal parameters currently exist to proactively predict loss of response to therapy. That’s a significant gap.

NICE guidelines also stress shared decision-making. Information from this work could inform those discussions, allowing patients to better understand their individual risk and treatment options. This empowers patients.

Crohn's disease, a chronic inflammatory condition, has an unpredictable course, making long-term management difficult. Patients face uncertainty. Achieving and maintaining endoscopic remission is crucial for better long-term outcomes, cutting hospitalization and surgery rates. Remission is the goal. Still, many patients had primary non-response or secondary loss of response, highlighting the need for better predictive tools. Current tools fall short.

What to Look For

What parameters matter? Deep ulcers, a high SES-CD score, and specific ulcer characteristics linked to a higher likelihood of primary non-response or loss of response to anti-TNF agents. These are key indicators.

Specifically, patients with a SES-CD score above a certain threshold (the exact value will need further validation) should be considered at higher risk. The threshold matters. Clinicians also need to watch ulcer morphology: deep and penetrating, or superficial? Are they in specific regions of the colon? Details count. Risk accumulates.

The Simple Endoscopic Score for Crohn's Disease (SES-CD) quantifies lesion severity based on ulcer size, extent of ulcerated and affected surface, and strictures. It measures disease activity. A higher SES-CD score indicates more severe disease activity.

Deep ulcers, often extending into the submucosa or muscularis propria, signify more aggressive inflammation. They mean a poorer prognosis. This focus on specific endoluminal features provides actionable insights for clinicians during routine endoscopic evaluations. That's practical data.

How to Adjust Treatment

For high-risk patients identified by endoluminal parameters, several strategies could be considered. Options exist. One option is to intensify therapy from the outset, using combination therapy (e.g., anti-TNF plus immunomodulator) rather than monotherapy. Start aggressive.

Another approach is to implement more frequent monitoring, with earlier repeat endoscopies to assess response to therapy. Monitor closely. If early signs of treatment failure are detected, we can then escalate therapy more quickly, before irreversible damage occurs. Escalate fast.

Optimizing non-pharmacological interventions, such as dietary modifications and smoking cessation, also impacts treatment response. Lifestyle matters too.

Still, clinicians should weigh a few caveats. The small, though multi-center, sample size could limit generalizability. The retrospective design is an obvious caveat, introducing potential for bias. The definition of 'loss of response' also varies across studies and clinical settings, making comparisons tough. Also, the focus here is primarily anti-TNF therapy; it's unclear if these endoluminal parameters predict response to other IBD medications, like vedolizumab or ustekinumab. More research is needed. A prospective, randomized controlled trial would confirm these observations and map out optimal management for high-risk patients. That's the next step.

The retrospective nature meant data collection was not standardized, potentially varying endoscopic reporting and interpretation. Observer variability in assessing lesions, even with validated SES-CD scores, can influence outcomes. This introduces noise. Future prospective studies should aim for central reading of endoscopic images to minimize this variability. The study population might not fully represent diverse patient populations in practice, particularly for disease

duration, prior treatments, or extraintestinal manifestations. Diversity is crucial. The mechanisms by which deep ulcers and high SES-CD scores predict anti-TNF treatment failure may relate to increased inflammatory burden or altered drug pharmacokinetics in severely inflamed tissue. The biology matters.

The Cost Question

Implementing more frequent monitoring and potentially escalating therapy earlier will undoubtedly have financial implications. Costs will rise. More frequent endoscopies increase costs for both patients and the healthcare system. Combination therapy is generally more expensive than monotherapy. It’s more expensive.

The cost-effectiveness of these strategies demands consideration. Will the benefits of preventing loss of response and avoiding complications outweigh increased upfront costs? That’s the economic puzzle. The catch: insurance coverage for more frequent endoscopies may be a barrier for some patients. Access is key. Addressing these financial considerations is crucial to ensure equitable access to optimal care. Fair access is paramount.

Ultimately, the open questions remain whether these endoluminal markers will translate into improved long-term outcomes in a prospective trial, and if payers will cover more intensive early monitoring.

> **CLINICAL IMPLICATIONS**
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> Identifying high-risk Crohn's disease patients earlier could fundamentally alter initial treatment strategies. Clinicians can move beyond a reactive stance, proactively intensifying therapy or increasing monitoring based on endoscopic findings. This means fewer patients losing response and fewer complications.
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> The presence of deep ulcers or a high SES-CD score should now trigger an immediate re-evaluation of the treatment plan. Combination therapy may be warranted from the outset for these individuals. This changes the treatment algorithm.
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> But, the financial implications are considerable. More intensive monitoring and expensive combination therapies will stress healthcare budgets. Payers will need to adapt, or patients will face access barriers.
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> Until prospective data confirm these markers, clinicians should interpret the findings with an eye toward individual patient context. Still, these insights offer a new lens for managing a challenging disease. It's a crucial step forward.

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