From theory to practice: a Belgian consensus on minimal monitoring strategies for patients with IBD treated with advanced therapies

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Abstract

Background and study aims: Inflammatory bowel diseases (IBD) are chronic conditions requiring lifelong management, often involving advanced therapies. To harmonize the current heterogeneity in monitoring practices we developed a Belgian Standard of Care (SOC) guidance for patients with IBD treated with these advanced therapies.

Methods: A multistep approach was adopted. First, a core team of IBD clinicians conducted a national survey to evaluate current practices and identify gaps. Next, a SOC guidance document was drafted and reviewed by multiple stakeholders, including physicians and IBD nurses from the Belgian IBD Research and Development (BIRD) group and patient organizations. Feedback was then incorporated to develop a consensus-based framework tailored to current Belgian clinical practices.

Results: This SOC guidance outlines minimal follow-up requirements across treatment phases, emphasizing clinical, biochemical, endoscopic and cross-sectional assessments, while also discussing additional relevant outcomes such as quality of life.

Conclusions: The SOC guidance document offers a comprehensive, consensus-based framework to homogenize the monitoring of patients with IBD receiving advanced therapies. By standardizing monitoring practices, it aims to enhance quality of care, safety and long-term outcomes, ensuring alignment with international standards while addressing specific national requirements and availabilities. (Acta gastroenterol belg., **2026,** 89**, 315-323).**

Keywords: Crohn's disease; ulcerative colitis; standard of care.

Introduction

Over the past decades, the management of inflammatory bowel diseases (IBD) has evolved substantially. With the development of advanced diagnostic tools and a growing armamentarium of targeted therapies, treatment goals have shifted from mere symptom control to sustained disease modification, in line with the "treat-to-target" strategy endorsed by the STRIDE-II initiative (1, 2). This approach emphasizes the achievement of clinical, biochemical and endoscopic remission, as well as improvement in quality of life. To reach and maintain these targets, close and structured treatment monitoring is essential. Biologic and small molecule therapies can have variable efficacy between individuals and secondary loss of response remains a common clinical challenge (3, 4). Hence, timely identification of non-response or intolerance is essential, allowing for therapeutic optimization and ultimately improving long-term outcomes (4). Moreover, these therapies can be associated with potentially severe adverse events, necessitating regular safety surveillance.

Despite international guidelines outlining treatment monitoring strategies, significant heterogeneity exists in their implementation across healthcare systems and IBD centres, resulting in variability in quality of care. Both the VIPER survey and the recent ECCO E-Quality project demonstrated substantial intercountry and intercentre differences in key aspects of IBD care, underscoring the lack of harmonization across Europe (5, 6). In Belgium, a recent study in Crohn's disease (CD) patients revealed persistent unmet needs, highlighting the importance of structured and standardized monitoring to optimize care (7). Several other national initiatives, such as the Spanish CUE project, which benchmarked quality indicators across IBD units, and the French consensus on IBD monitoring, have illustrated the value of adapting recommendations to local healthcare systems (8, 9). Building on international guidelines and these efforts, this SOC project aims to provide consensus-driven, pragmatic guidance for Belgium, with the goal of addressing gaps in monitoring and improving patient outcomes.

Methods

The development of the SOC framework followed a multidisciplinary, staged approach as outlined in

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Figure 1. A core team of seven Belgian IBD clinicians, all representatives of the Belgian IBD Research and Development (BIRD) group, coordinated this process.

The initiative began with the development of a survey to assess current monitoring practices, which was distributed among all Belgian IBD clinicians through the BIRD. A concise overview of the results is provided in *Supplementary Tables 1-2*. Next, a SOC guidance document was drafted by the core team, based on current European Crohn's and Colitis Organization (ECCO) guidelines, while incorporating local reimbursement policies (4, 10). The SOC proposal underwent a multistep reviewing process. First, this draft was reviewed by the BIRD Operational board (n=7) and adapted accordingly. Second, a plenary discussion and live voting session was held during the BIRD General Assembly on May 28, 2024, during which 38 physicians were present and participated in the voting process. All proposed monitoring items were discussed and subsequently submitted to a vote. Physicians who were unable to attend the meeting were offered the opportunity to provide written feedback electronically in case of disagreement with any of the proposed statements. All statements included in the final manuscript reached unanimous agreement among the voting participants and no objections or additional feedback were received following the meeting. The revised SOC proposal was subsequently reviewed by the Belgian IBD Nurses (BINAstoria). In addition, Belgian patient organizations (CCV-vzw and L'association de Crohn-RCUH) were invited to review and discuss the proposal in the presence of a core team member, ensuring alignment with patient experiences and preferences.

Following the publication of an updated ECCO consensus on nutritional assessment during the manuscript revision process, the core team proposed the addition of a statement on nutritional screening to the monitoring tables (11). This proposal was circulated to all BIRD members for electronic voting in accordance with the predefined methodology. No objections to the proposed addition were raised within the predefined response period. One minor suggestion regarding the presentation of the nutritional assessment in the monitoring table was incorporated.

Aims

This SOC guidance document defines the minimal monitoring requirements for adult Belgian patients with IBD during the initiation and continuation of advanced therapies, including biologics and small molecules (2). Importantly, this SOC protocol provides guidance on the minimal workup for "standard" clinical scenarios but does not address more specific or complex situations. These include, but are not limited to, acute severe ulcerative colitis (ASUC), penetrating and/or perianal CD, upper gastrointestinal involvement, pouchitis, pregnancy, extra-intestinal manifestations, post-operative disease, or patients with a history of malignancy. Additionally, this SOC guidance is not designed to serve as a comprehensive safety guideline beyond routine monitoring for treatment toxicity. Hence, it does not provide recommendations for skin cancer surveillance, vaccination protocols, colorectal cancer screening, or assessments prior to initiating advanced therapies.

Supplementary Results (including Supplementary Tables)
Scan QR

Methods of assessment in IBD

1. Clinical methods

Clinical evolution can be assessed through various methods, including in-person, telephone, or video consultations (12, 13). Standardized measures and scores should preferably be used, such as the partial Mayo score or patient-reported outcomes (PROs), (see *Supplementary Tables 3-4* for UC and CD, respectively) (14, 15, 16, 17). The immediate treatment target in IBD is achieving a rapid clinical response, with clinical remission serving as an intermediate objective (*Supplementary Tables 5-6*) (2).

2. Biochemical methods

The primary biochemical markers for assessing disease activity in IBD are C-reactive protein (CRP) and faecal calprotectin (fCal) (2). Normalization of CRP is considered an essential short- to medium-term treatment target, though it is insufficient as a long-term marker (2). There is no universal consensus on the optimal cutoff

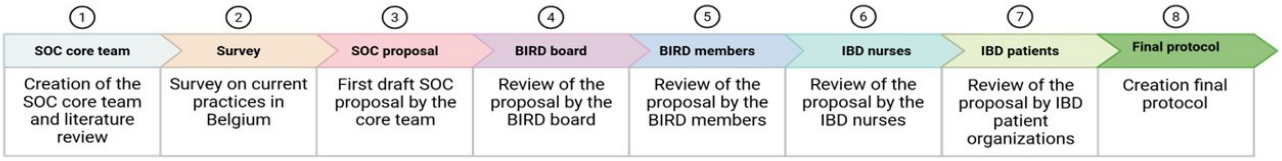

Figure 1. — Flowchart of the creation of the SOC proposal.
SOC: Standard of Care; BIRD: Belgian IBD Research and Development - Created in BioRender.

for fCal in clinical practice; a cutoff of 150 µg/g has been associated with endoscopic healing, while values between 100–250 µg/g are considered a "grey zone". As such, fCal levels below 100–250 µg/g are proposed as an intermediate treatment target (2).

3. Endoscopic and histological methods

Endoscopy remains the gold standard for assessing mucosal inflammation in IBD, offering direct visualization of the mucosa and enabling histologic evaluation through biopsies (18). Adequate photo-documentation (or video-documentation), both at baseline and during follow-up, combined with the use of standardized endoscopic activity scores, facilitates treatment monitoring and serves as a key quality indicator in clinical practice (19). Achieving endoscopic remission is a long-term treatment target, strongly associated with better clinical outcomes, including reduced hospitalization and surgery rates (2, 20, 21). Although histological remission is not yet established as a formal treatment target, it holds clinical relevance, particularly in UC.

When lesions are suspected in segments beyond the reach of standard ileocolonoscopy, alternative endoscopic modalities such as small-bowel capsule endoscopy (SBCE) or device-assisted enteroscopy are valuable tools for assessing disease activity (2). Given the risk of capsule retention in patients with CD, the use of a preceding patency capsule is recommended when stenotic disease is suspected (4). Moreover, the application of validated scoring systems (such as the Lewis score) and adherence to the ESGE performance measures are advised to ensure standardized and high-quality assessment (4, 22).

4. Radiographic methods

Cross-sectional imaging serves as a valuable complement to endoscopy by providing insights into transmural inflammation, disease extent and complications such as strictures, fistulas and abscesses (2, 4). Key modalities include magnetic resonance enterography (MRE), which is preferred over computed tomography enterography (CTE) due to the absence of radiation and intestinal ultrasound (IUS) (4, 23). IUS, which is increasingly adopted in clinical practice, offers a non-invasive alternative for assessing disease activity and complications in both CD and UC (2, 23, 24). While transmural healing is not yet a formal treatment target due to the limitations of current therapies in consistently achieving this level of healing (2), it remains a valuable adjunct in the management of CD.

5. Quality of life

As a normalized quality of life (QoL) is recognized as a formal long-term treatment target and holds particular importance for patients, its systematic evaluation should be incorporated into routine clinical care. The STRIDE-II initiative proposes several tools which can be used to assess QoL (such as the IBD Questionnaire) and disability (such as the IBD Disability Index), while ECCO also endorses the IBD Disk as a pragmatic patient-reported tool to assess disability and disease impact in routine clinical practice (2, 10).

6. Nutritional assessment

Nutritional status should be considered as part of routine monitoring in patients with IBD. In line with ECCO consensus guidance on dietary management in IBD, patients should undergo nutritional screening to identify those at risk of malnutrition. Validated tools such as the Malnutrition Universal Screening Tool (MUST) or the Nutrition Risk Screening 2002 (NRS-2002) can be used for this purpose (Supplementary Tables 7-8). Importantly, the prevalence of obesity in IBD is increasing, with reported rates ranging from 15–40% in adult patients (25). However, obesity does not preclude malnutrition; patients with obesity may still have significant sarcopenia and micronutrient deficiencies. Therefore, BMI alone is insufficient to adequately assess the nutritional status (11, 26, 27). When nutritional risk is identified, a more comprehensive nutritional assessment is recommended, including evaluation of body composition, muscle function and micronutrient status, preferably by a dietitian (11).

Results

Rather than relying on narrow time-based cut-offs, this consensus is structured around key stages of treatment, differentiating between the start of treatment, early post-start (week 4 ± 2 weeks), post-induction (week 10 ± 4 weeks), early maintenance (week 24 ± 4 weeks), end of early maintenance (week 52 ± 4 weeks) and long-term maintenance (beyond week 52) (Figure 2). These stages represent pragmatic clinical decision points, defined based on STRIDE-II treatment targets, ECCO guidelines and expert group discussion, rather than formally validated disease stages (2, 4). It is important to note that the time needed to achieve specific treatment targets varies depending on the therapeutic approach and disease subtype, as outlined by the STRIDE-II working group (2). While these intervals are designed

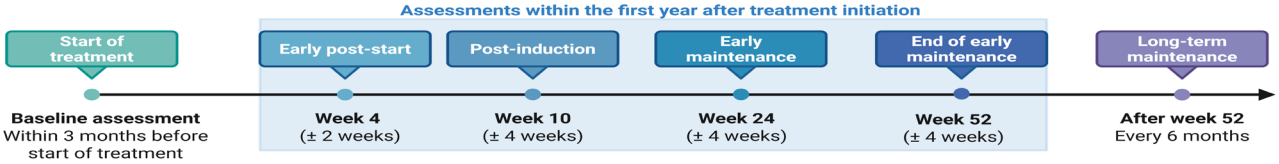

Figure 2. — Proposed treatment phases and moments of evaluation. Created in BioRender.

for cases of favourable disease evolution, accelerated assessments may be required in patients with suspected flare-ups or persistent disease activity (4). The proposed SOC framework provides guidance for the follow-up of patients during treatment initiation and maintenance therapy (see Figure 3 for UC and Figure 4 for CD) to assess whether treatment targets (Supplementary Table 3-4) are achieved (2).

Assessment per timepoint

1. Start of treatment

1.1. Suggested minimal baseline assessment

Before initiating any advanced treatment, a comprehensive assessment of immunization status and infection screening should be performed, as outlined in existing guidelines (28, 29). Additionally, potential contraindications for specific treatments or pretreatment requirements must be identified prior to selecting the appropriate drug. A detailed guidance for these pre-treatment requirements was beyond the scope of the current consensus.

At baseline, a thorough evaluation of disease activity should be conducted, incorporating clinical, biochemical and endoscopic assessments. In patients with small bowel involvement that is extensive or not accessible by ileocolonoscopy, additional evaluation using cross-sectional imaging, capsule endoscopy, or device-assisted enteroscopy may be warranted.

Clinical evaluation should ideally include a PRO, global assessment and physical examination with additional consideration of nutritional status through appropriate screening. Biochemical assessment should encompass screening for disease activity (CRP and fCal), along with a complete blood count (CBC), renal function tests, liver profile and serum albumin levels (2, 4). Although fCal is currently not reimbursed for UC in Belgium, it is still recommended for baseline measurement to facilitate future monitoring. If not performed within the last 3 months, an endoscopic evaluation is advised before starting treatment, with proper documentation (including images, scoring and detailed description) to allow for accurate comparison following treatment initiation. In UC, this may involve sigmoidoscopy or ileocolonoscopy, while in CD, the choice of endoscopic method depends on the affected region (4).

1.2. Additional (optional) baseline examinations

In addition to the core assessments, several optional examinations may be considered based on individual patient characteristics or disease complexity. In centres where IUS is readily available, it can serve as a valuable adjunct for assessing treatment response. Therefore, performing a baseline IUS evaluation is recommended to allow for comparison (23).

Ulcerative colitis	Start of treatment	Early post-start	Post-induction*	Early maintenance	End of early maintenance	Long-term maintenance
	Baseline assessment	Week 4 (± 2 weeks)	Week 10 (± 4 weeks)	Week 24 (± 4 weeks)	Week 52 (± 4 weeks)	After week 52 Every 6 months
Clinical						
Patient reported outcome	✓	✓	✓	✓	✓	✓
Global assessment	✓	✓	✓	✓	✓	✓
Nutritional assessment	✓		(✓)▲	(✓)▲	(✓)▲	(✓)▲▲
Physical examination	✓		✓	✓	✓	✓
Biochemical						
C-reactive protein	✓		✓	✓	✓	✓
Faecal calprotectin	✓			✓	✓	✓
Complete blood count	✓	✓■	✓	✓	✓	✓
Renal function	✓		✓	✓	✓	✓
Liver profile	✓	✓■	✓	✓	✓	✓
Serum albumin	✓		✓	✓	✓	✓
Endoscopic	✓		✓		(✓)●	(✓)●●
Radiographic (IUS)	(✓)*		(✓)*		(✓)*	

Figure 3. — Proposed follow-up for patients with ulcerative colitis.
Baseline assessment: within 3 months before treatment start.
■Early post-start: complete blood count and liver profile if required based on the specific treatment used.
∗ Post-induction assessment: to be repeated if prolonged induction was required.
Nutritional assessment: evaluation at ▲post-induction and ▲early maintenance in case of ongoing active disease and/or malnutrition. During ▲▲long-term maintenance: nutritional status may be reassessed periodically, e.g. annually.
Endoscopic assessment: including accurate photo documentation to allow for comparison. ●End of early maintenance: endoscopic assessment only in case of endoscopic 'response' and not 'remission' post-induction. ●●Long-term maintenance: endoscopic surveillance according to ECCO guidelines (and not 6-monthly).
*Radiographic assessment: IUS can be a valuable adjunct for monitoring if readily available, however, this item was not formally included in the voting process. Created in BioRender (https://BioRender.com/v8kmhzq).

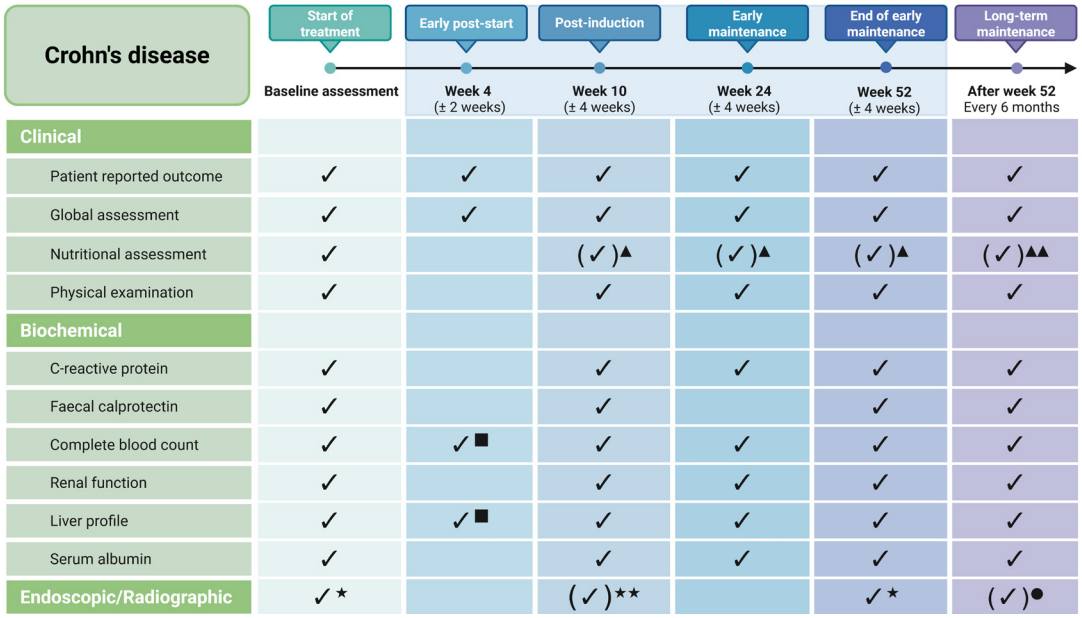

Figure 4. — Proposed follow-up for patients with Crohn's disease.
Baseline assessment: within 3 months before treatment start.
■Early post-start: complete blood count and liver profile if required based on the specific treatment used. Endoscopic assessment: including accurate photo documentation to allow for comparison.
Nutritional assessment: evaluation at ▲post-induction and ▲early maintenance in case of ongoing active disease and/or malnutrition. During ▲▲long-term maintenance: nutritional status may be reassessed periodically, e.g. annually.
Endoscopic/radiographic assessment: ★If the involved region cannot be reached by colonoscopy: evaluation by another modality (MR or CT enterography/IUS/enteroscopy/video capsule) or use of IUS as adjunct. ★★IUS can serve as a valuable adjunct to assess treatment response post-induction when available. This item, however, was not formally included in the voting process
●Long-term maintenance: endoscopic surveillance according to ECCO guidelines (and not 6-monthly).
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Given the significant impact of IBD on patients' QoL and the high prevalence of psychological comorbidities, such as depression, anxiety (30) and fatigue (31), it is advisable to consider a baseline psychological assessment or screening.

2. Early post-start (week 4 ± 2 weeks)

An assessment of the patient is advised early after treatment initiation, in the form of a teleconsultation, a video consultation or during an in-person visit and can be conducted by either an IBD nurse or physician. In patients with moderate-to-severe disease or other high-risk features, such low-threshold contact may be appropriate within the first days after treatment initiation. This early follow-up aims to assess initial treatment response, identify potential adverse events and promptly detect clinical deterioration (32). For certain advanced therapies, specific laboratory tests are recommended following induction to monitor for potential adverse effects. Clinicians are advised to consult the corresponding product information for detailed guidance on monitoring requirements per product.

3. Post-induction (week 10 ± 4 weeks)

3.1. Suggested minimal assessment

After the induction phase, a comprehensive evaluation is recommended to confirm treatment response as a prerequisite for transition to maintenance therapy. This post-induction time point is critical for identifying primary non-responders; in the absence of meaningful clinical and objective response, continuation of the same therapy should be reconsidered and timely treatment modification is warranted. For most therapies, clinical and biochemical response can typically be observed within 10–14 weeks, making this an appropriate timeframe for evaluation in all patients. Accordingly, the recent ECCO guidelines recommend an evaluation within 12 weeks of treatment initiation (2, 4). For patients with UC who clinically respond to therapy, this should be corroborated by objective parameters such as fCal, IUS and/or endoscopy (4). However, given that fCal is not reimbursed for UC in Belgium and sigmoidoscopy is mandated prior to maintenance reimbursement, sigmoidoscopy is therefore commonly performed in this setting, primarily driven by reimbursement requirements rather than clinical preference. A response to induction treatment in patients with IBD can also be assessed with IUS when available, particularly when a baseline evaluation was performed (4, 23). At this post-induction time point, nutritional status may be re-screened particularly in patients with ongoing active disease and/or malnutrition (11).

In addition, for advanced therapies for which extended induction regimens are supported by clinical trial data or product labelling, the need for extended

induction should be considered at the end of routine induction (33, 34). In cases where prolonged induction is required, a repeated post-induction assessment (including calprotectin and/or endoscopy) should be performed before transitioning to maintenance therapy.

4. Early maintenance (week 24 ± 4 weeks)

4.1. Suggested minimal assessment

At week 24, a comprehensive clinical and biochemical assessment is recommended for both CD and UC, including the evaluation of fCal levels to monitor mucosal inflammation. At this stage, nutritional status should be reassessed in patients with persistent inflammatory activity and in those in whom malnutrition or specific nutritional deficiencies were identified at baseline.

4.2. Additional (optional) assessment

IUS can be used between week 24–52 to evaluate ongoing response to treatment, both in CD and UC (23).

5. End of early maintenance (week 52 ± 4 weeks)

5.1. Suggested minimal assessment

At the end of the early maintenance phase, a clinical and biochemical evaluation is recommended, complemented by an assessment of endoscopic response or remission. In the Belgian context, for patients with UC, a post-induction endoscopic assessment is advised. If the post-induction evaluation showed endoscopic response without complete remission a repeat endoscopic assessment, either by sigmoidoscopy or ileocolonoscopy, is proposed. Conversely, if clinical response and endoscopic remission were achieved post-induction, fCal monitoring may suffice for ongoing evaluation. For patients with CD, in line with the ECCO guidelines an endoscopic evaluation within 12 months is recommended (4).

5.2. Additional (optional) assessment

If IUS was not performed at week 24, it may be considered at this stage to assess transmural response (23).

If endoscopic remission is achieved, routine biopsies to confirm histological remission are not indicated in CD (2). In UC, however, biopsies may be performed to assess histological healing, although this is not yet established as a formal treatment target (2).

6. Long-term maintenance (after week 52)

6.1. Suggested minimal assessment

Once patients achieve sufficient clinical, biochemical and endoscopic response or remission they transition into the long-term maintenance phase. For patients in sustained clinical and biochemical remission, routine monitoring (clinical and biochemical) every six months is recommended to facilitate early detection of potential disease flares (4). In this phase, nutritional status may be reassessed periodically, for example on an annual basis (11). During long-term follow-up, surveillance endoscopy should be performed in accordance with ECCO and ESGE guidelines (35, 36).

Discussion

Achieving timely and comprehensive disease control in IBD is essential to prevent disease progression and complications, including hospitalizations, surgeries and colorectal cancer (37). The STRIDE-II guidelines were developed to define clear therapeutic targets within a treat-to-target framework (2). Nevertheless, recent real-world data from the IBD-PODCAST study revealed that these targets remain frequently unmet, with suboptimal disease control observed in nearly half of patients (37). In 50–60% of cases, opportunities for on-label dose escalation were identified but not pursued, underscoring the need for regular assessments and proactive therapeutic adjustments.

Endoscopy remains the gold standard for assessing mucosal healing, particularly in the first treatment year. However, its invasive nature, high cost and low patient tolerability limit its frequent use, necessitating integration of less invasive markers (2, 18, 24). CRP, while widely used, has notable limitations, including poor sensitivity and variability based on disease type and location (38). In contrast, fCal has excellent sensitivity (38) and is a reliable predictor of both short-term relapse (39) and long-term clinical response (40). However, its broader use in Belgium is limited by reimbursement restrictions as it is currently only reimbursed for CD, with a maximum of two tests per year (41).

IUS is gaining recognition as it provides a non-invasive, cost-effective and patient-friendly option for monitoring disease activity (24). In UC early IUS predicts treatment response (42) and in combination with endoscopic remission, transmural healing reflects a deeper level of remission associated with improved long-term outcomes (2, 4, 21). It also enhances patients' understanding of their disease, fostering better engagement in their care (24). Despite its promise, uptake of IUS remains limited globally (37) and in Belgium, at least in part due to insufficient training opportunities and unfavourable reimbursement policies (43, 44). Consequently, IUS was not yet included in the minimal follow-up requirements of the SOC, although future evidence may inform its role in subsequent updates (45). Similarly, although SBCE has proven effective for assessing small-bowel disease activity in CD, its uptake in Belgium is limited due to the lack of reimbursement for this indication.

Therapeutic drug monitoring (TDM) was not specifically addressed in this SOC, as drug-specific monitoring strategies fall beyond the scope of this minimal monitoring guidance. Nevertheless, TDM may be clinically useful in selected situations, particularly

in cases of primary non-response or secondary loss of response, most notably for anti-TNF therapies (46).

Histological remission in UC is linked to a reduced risk of adverse outcomes such as hospitalizations, colectomy and colorectal cancer (2, 47). However, its adoption as an independent therapeutic target remains limited by the lack of standardized reporting, a high number needed to treat and insufficient supporting evidence and it is therefore not included as a formal monitoring target in this SOC, while ongoing studies continue to evaluate its clinical relevance (48). In CD histological remission is less established due to the absence of validated scores and limited treatment efficacy in inducing histological healing (2).

Normalizing QoL, though challenging, remains a formal treatment goal and one of the highest priorities for patients (2, 37, 49). However, tools used for systematic QoL assessment are primarily used in clinical trials and may be too time-consuming for routine consultations. Moreover, formal guidelines are lacking regarding the optimal timepoints for QoL monitoring and whether treatment adjustments are warranted when QoL remains suboptimal. When QoL targets are unmet, shared decision-making becomes essential to reassess treatment goals and explore additional interventions, including those addressing the gut-brain axis (50, 51). In addition, nutritional status represents an important and potentially modifiable contributor to QoL and functional outcomes in patients with IBD (11). A multidisciplinary approach that integrates both psychological and physical care has been shown to improve patient outcomes and may contribute to a reduction in overall healthcare utilization (50).

While a treat-to-target approach requires more intensive monitoring, it has proven to be cost-effective due to reductions in hospitalizations, absenteeism and gains in quality-adjusted life years (52, 53). Remote patient monitoring tools, such as telemedicine, health apps and wearable devices, can support this strategy by enhancing outcomes, QoL and sustainability, while also reducing healthcare costs and environmental impact (12, 29, 54, 55, 56, 57, 58). Despite current limitations (e.g. data privacy, tool validation, adherence), these technologies are expected to play an increasingly central role. The SOC framework promotes their use to complement in-person care and support tight disease control.

Comprehensive and patient-centred monitoring requires close collaboration among patients, IBD nurses and physicians. Tailoring strategies to individual preferences enhances adherence and empowers patients in self-management (24, 41). Accordingly, the SOC integrates patient organization feedback to align recommendations with patient expectations.

In conclusion, optimizing IBD follow-up requires a structured, evidence-based and patient-focused approach. The proposed SOC provides a unified framework to harmonize monitoring practices across Belgium, addressing current gaps and promoting future advances. Standardized monitoring will also facilitate multicentre data collection, supporting real-world evidence and improving the applicability of clinical research. Future studies should specifically evaluate the impact of this SOC on patient outcomes in Belgium, including treatment durability, long-term remission rates and quality of life, thereby ensuring that these recommendations translate into measurable clinical benefit.

Declarations

Author contributions: M.T.: conceptualization, design, writing-original draft, writing-review and editing. A.C., A.J.A., B.V., J.S., L.P., T.L.: conceptualization, design, writing-review and editing. All authors critically revised the article for important intellectual content and gave final approval of the version to be submitted.

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References

1. Colombel J-F, D'Haens G, Lee W-J, Petersson J, Panaccione R. Outcomes and strategies to support a treat-to-target approach in inflammatory bowel disease: a systematic review. J Crohns Colitis. 2020;14:254-66. doi: 10.1093/ecco-jcc/jjz131.
2. Turner D, Ricciuto A, Lewis A, D'amico F, Dhaliwal J, Griffiths AM, et al. STRIDE-II: an update on the Selecting Therapeutic Targets in Inflammatory Bowel Disease (STRIDE) Initiative of the International Organization for the Study of IBD (IOIBD): determining therapeutic goals for treat-to-target strategies in IBD. Gastroenterology. 2021;160:1570-83. doi: 10.1053/j.gastro.2020.12.031.
3. Elhag DA, Kumar M, Saadaoui M, Akobeng AK, Al-Mudahka F, Elawad M, et al. Inflammatory bowel disease treatments and predictive biomarkers of therapeutic response. Int J Mol Sci. 2022;23:6966. doi: 10.3390/ijms23136966.
4. Kucharzik T, Taylor S, Allocca M, Burisch J, Ellul P, Iacucci M, et al. ECCO-ESGAR-ESP-IBUS Guideline on Diagnostics and Monitoring of Patients with Inflammatory Bowel Disease: Part 1: initial diagnosis, monitoring of known inflammatory bowel disease, detection of complications. J Crohns Colitis. 2025;19. doi: 10.1093/ecco-jcc/jjaf106.
5. Kral J, Nakov R, Lanska V, Barberio B, Benech N, Blesl A, et al. Significant differences in IBD care and education across Europe: results of the pan-European VIPER survey. Dig Dis. 2023;41:387-95. doi: 10.1159/000528070.
6. Fiorino G, Fidalgo C, Adamina M, Barreiro-de Acosta M, Ali MP, Bortlik M, et al. Gaps between European Crohn's and Colitis Organisation quality standards of care and the real world on diagnosis and monitoring inflammatory bowel disease across Europe: results from the E-QUALITY survey. J Crohns Colitis. 2025;19. doi: 10.1093/ecco-jcc/jjaf105.
7. Schönborn C, Levy M, De Jaeger M, Van Goethem R, Leonard U, Claerman R, et al. Unmet health-related needs in patients with Crohn's disease in Belgium: a mixed-methods study. Arch Public Health. 2025;83:151. doi: 10.1186/s13690-025-01632-1.
8. Bonnaud G, Bouhnik Y, Hagege H, Hebuterne X, Pariente B, Roblin X, et al. Monitoring of inflammatory bowel disease in 2019: A French consensus for clinical practice. Dig Liver Dis. 2020;52:704-20. doi: 10.1016/j.dld.2020.03.033.
9. Barreiro-de Acosta M, Gutierrez A, Zabana Y, Beltran B, Calvet X, Chaparro M, et al. Inflammatory bowel disease integral care units: Evaluation of a nationwide quality certification programme. The

GETECCU experience. United European Gastroenterol J. 2021;9:766-72. doi: 10.1002/ueg2.12105.
10. Yanai H, Feakins R, Allocca M, Burisch J, Ellul P, Iacucci M, et al. ECCO-ESGAR-ESP-IBUS Guideline on Diagnostics and Monitoring of Patients with Inflammatory Bowel Disease: Part 2: IBD scores and general principles and technical aspects. J Crohns Colitis. 2025;19. doi: 10.1093/ecco-jcc/jjaf107.
11. Svolos V, Gordon H, Lomer MCE, Aloi M, Bancil A, Day AS, et al. European Crohn's and Colitis Organisation consensus on dietary management of inflammatory bowel disease. J Crohns Colitis. 2025;19. doi: 10.1093/ecco-jcc/jjaf122.
12. George LA, Cross RK. Remote monitoring and telemedicine in IBD: are we there yet? Curr Gastroenterol Rep. 2020;22:1-6. doi: 10.1007/s11894-020-0751-0.
13. Sturm A, Maaser C, Calabrese E, Annese V, Fiorino G, Kucharzik T, et al. ECCO-ESGAR Guideline for Diagnostic Assessment in IBD Part 2: IBD scores and general principles and technical aspects. J Crohns Colitis. 2019;13:273-84. doi: 10.1093/ecco-jcc/jjy114.
14. Jairath V, Khanna R, Zou GY, Stitt L, Mosli M, Vandervoort MK, et al. Development of interim patient-reported outcome measures for the assessment of ulcerative colitis disease activity in clinical trials. Aliment Pharmacol Ther. 2015;42:1200-10. doi: 10.1111/apt.13408.
15. Khanna R, Zou G, D'haens G, Feagan B, Sandborn W, Vandervoort M, et al. A retrospective analysis: the development of patient reported outcome measures for the assessment of Crohn's disease activity. Aliment Pharmacol Ther. 2015;41:77-86. doi: 10.1111/apt.13001.
16. Narula N, Alshahrani AA, Yuan Y, Reinisch W, Colombel JF. Patient-Reported Outcomes and Endoscopic Appearance of Ulcerative Colitis: A Systematic Review and Meta-analysis. Clin Gastroenterol Hepatol. 2019;17:411-8.e3. doi: 10.1016/j.cgh.2018.06.015.
17. Lewis JD, Chuai S, Nessel L, Lichtenstein GR, Aberra FN, Ellenberg JH. Use of the noninvasive components of the Mayo score to assess clinical response in ulcerative colitis. Inflamm Bowel Dis. 2008;14:1660-6. doi: 10.1002/ibd.20520.
18. Annese V, Daperno M, Rutter MD, Amiot A, Bossuyt P, East J, et al. European evidence based consensus for endoscopy in inflammatory bowel disease. J Crohns Colitis. 2013;7:982-1018. doi: 10.1016/j.crohns.2013.09.016.
19. Dekker E, Nass KJ, Iacucci M, Murino A, Sabino J, Bugajski M, et al. Performance measures for colonoscopy in inflammatory bowel disease patients: European Society of Gastrointestinal Endoscopy (ESGE) Quality Improvement Initiative. Endoscopy. 2022;54:904-15. doi: 10.1055/a-1874-0946.
20. Pineton de Chambrun G, Peyrin-Biroulet L, Lémann M, Colombel J-F. Clinical implications of mucosal healing for the management of IBD. Nat Rev Gastroenterol Hepatol. 2010;7:15-29. doi: 10.1038/nrgastro.2009.203.
21. Sands BE, Danese S, Chapman JC, Gurjar K, Grieve S, Thakur D, et al. Mucosal and Transmural Healing and Long-term Outcomes in Crohn's Disease. Inflamm Bowel Dis. 2024;31:857-77. doi: 10.1093/ibd/izae159.
22. Sidhu R, Shiha MG, Carretero C, Koulaouzidis A, Dray X, Mussetto A, et al. Performance measures for small-bowel endoscopy: a European Society of Gastrointestinal Endoscopy (ESGE) Quality Improvement Initiative - Update 2025. Endoscopy. 2025;57:366-89. doi: 10.1055/a-2522-1995.
23. Ilvemark JF, Hansen T, Goodsall TM, Seidelin JB, Al-Farhan H, Allocca M, et al. Defining transabdominal intestinal ultrasound treatment response and remission in inflammatory bowel disease: systematic review and expert consensus statement. J Crohns Colitis. 2022;16:554-80. doi: 10.1093/ecco-jcc/jjab173.
24. Goodsall TM, Noy R, Nguyen TM, Costello SP, Jairath V, Bryant RV. Systematic review: patient perceptions of monitoring tools in inflammatory bowel disease. J Can Assoc Gastroenterol. 2021;4:e31-e41. doi: 10.1093/jcag/gwaa001.
25. Sun J, Brooks EC, Houshyar Y, Connor SJ, Paven G, Grimm MC, et al. Unravelling the Relationship Between Obesity and Inflammatory Bowel Disease. Inflamm Bowel Dis. 2025;31:2547-60. doi: 10.1093/ibd/izaf098.
26. Bischoff SC, Bager P, Escher J, Forbes A, Hébuterne X, Hvas CL, et al. ESPEN guideline on Clinical Nutrition in inflammatory bowel disease. Clin Nutr. 2023;42:352-79. doi: 10.1016/j.clnu.2022.12.004.
27. Li S, Ney M, Eslamparast T, Vandermeer B, Ismond KP, Kroeker K, et al. Systematic review of nutrition screening and assessment in inflammatory bowel disease. World J Gastroenterol. 2019;25:3823-37. doi: 10.3748/wjg.v25.i28.3823.
28. Kucharzik T, Ellul P, Greuter T, Rahier J-F, Verstockt B, Abreu C, et al. ECCO guidelines on the prevention, diagnosis, and management of infections in inflammatory bowel disease. J Crohns Colitis. 2021;15:879-913. doi: 10.1093/ecco-jcc/jjab052.
29. Plevris N, Lees CW. Disease monitoring in inflammatory bowel disease: evolving principles and possibilities. Gastroenterology. 2022;162:1456-75.e1. doi: 10.1053/j.gastro.2022.01.024.
30. Bernstein CN, Hitchon CA, Walld R, Bolton JM, Sareen J, Walker JR, et al. Increased Burden of Psychiatric Disorders in Inflammatory Bowel Disease. Inflamm Bowel Dis. 2018;25:360-8. doi: 10.1093/ibd/izy235.
31. D'Silva A, Fox DE, Nasser Y, Vallance JK, Quinn RR, Ronksley PE, et al. Prevalence and risk factors for fatigue in adults with inflammatory bowel disease: a systematic review with meta-analysis. Clin Gastroenterol Hepatol. 2022;20:995-1009.e7. doi: 10.1016/j.cgh.2021.06.034.
32. Kucharzik T, Verstockt B, Maaser C. Monitoring of patients with active inflammatory bowel disease. Front Gastroenterol. 2023;2. doi: 10.3389/fgstr.2023.1172318.
33. Honap S, Agorogianni A, Colwill MJ, Mehta SK, Donovan F, Pollok R, et al. JAK inhibitors for inflammatory bowel disease: recent advances. Frontline Gastroenterol. 2024;15:59-69. doi: 10.1136/flgastro-2023-102400.
34. D'Haens G, Higgins PDR, Peyrin-Biroulet L, Sands BE, Lee S, Moses RE, et al. Extended Induction and Prognostic Indicators of Response in Patients Treated with Mirikizumab with Moderately to Severely Active Ulcerative Colitis in the LUCENT Trials. Inflamm Bowel Dis. 2024;30:2335-46. doi: 10.1093/ibd/izae004.
35. Gordon H, Biancone L, Fiorino G, Katsanos KH, Kopylov U, Al Sulais E, et al. ECCO guidelines on inflammatory bowel disease and malignancies. J Crohns Colitis. 2023;17:827-54. doi: 10.1093/ecco-jcc/jjac187.
36. Bisschops R, East JE, Hassan C, Hazewinkel Y, Kamiński MF, Neumann H, et al. Advanced imaging for detection and differentiation of colorectal neoplasia: European Society of Gastrointestinal Endoscopy (ESGE) Guideline–Update 2019. Endoscopy. 2019;51:1155-79. doi: 10.1055/a-1031-7657.
37. D'Amico F, Gomollon F, Bamias G, Magro F, Targownik L, Leitner C, et al. Proportion of inflammatory bowel diseases patients with suboptimal disease control in daily clinical practice-Real-world evidence from the inflammatory bowel diseases-podcast study. United European Gastroenterol J. 2024;12:705-16. doi: 10.1002/ueg2.12572.
38. Mosli MH, Zou G, Garg SK, Feagan SG, MacDonald JK, Chande N, et al. C-reactive protein, fecal calprotectin, and stool lactoferrin for detection of endoscopic activity in symptomatic inflammatory bowel disease patients: a systematic review and meta-analysis. Am J Gastroenterol. 2015;110:802-19. doi: 10.1038/ajg.2015.120.
39. Heida A, Park KT, Van Rheenen PF. Clinical Utility of Fecal Calprotectin Monitoring in Asymptomatic Patients with Inflammatory Bowel Disease: A Systematic Review and Practical Guide. Inflamm Bowel Dis. 2017;23:894-902. doi: 10.1097/MIB.0000000000001082.
40. Haisma S-M, Verkade HJ, Scheenstra R, van der Doef HPJ, Bodewes FAJA, van Rheenen PF. Time-to-reach Target Calprotectin Level in Newly Diagnosed Patients With Inflammatory Bowel Disease. J Pediatr Gastroenterol Nutr. 2019;69:466-73. doi: 10.1097/MPG.0000000000002458.
41. Buisson A, Gonzalez F, Poullenot F, Nancey S, Sollellis E, Fumery M, et al. Comparative acceptability and perceived clinical utility of monitoring tools: a nationwide survey of patients with inflammatory bowel disease. Inflamm Bowel Dis. 2017;23:1425-33. doi: 10.1097/MIB.0000000000001140.
42. Allocca M, Dell'Avalle C, Furfaro F, Zilli A, D'Amico F, Peyrin-Biroulet L, et al. Early Intestinal Ultrasound Predicts Long-Term Endoscopic Response to Biologics in Ulcerative Colitis. J Crohns Colitis. 2023;17:1579-86. doi: 10.1093/ecco-jcc/jjad071.
43. Maaser C, Kucharzik T, Gecse K. Is Intestinal Ultrasound Ready to be Used as Standard Monitoring Tool in Daily Practice and as Endpoint in Clinical Trials? J Crohns Colitis. 2020;15:1-2. doi: 10.1093/ecco-jcc/jjaa180.
44. Allocca M, Kucharzik T, Rubin DT. Intestinal Ultrasound in the Assessment and Management of Inflammatory Bowel Disease: Is It Ready for Standard Practice? Gastroenterology. 2023;164:851-5. doi: 10.1053/j.gastro.2023.01.021.
45. ClinicalTrials.gov. An Interventional Study to Evaluate Treating to a Target of Transmural Healing in Patients With Moderately to Severely Active Crohn's Disease (NCT06257706). 2024.
46. Irving PM, Gecse KB. Optimizing Therapies Using Therapeutic Drug Monitoring: Current Strategies and Future Perspectives. Gastroenterology. 2022;162:1512-24. doi: 10.1053/j.gastro.2022.02.014.
47. Dal Buono A, Roda G, Argollo M, Peyrin-Biroulet L, Danese S. Histological healing: should it be considered as a new outcome for ulcerative colitis? Expert Opin Biol Ther. 2020;20:407-12. doi: 10.1080/14712598.2020.1701652.
48. Jairath V, Zou G, Wang Z, Adsul S, Colombel J-F, D'Haens GR, et al. Determining the optimal treatment target in patients with ulcerative colitis: rationale, design, protocol and interim analysis for the randomised

controlled VERDICT trial. BMJ Open Gastroenterol. 2024;11:e001218. doi: 10.1136/bmjgast-2023-001218.
49. Casellas F, Herrera-de Guise C, Robles V, Navarro E, Borruel N. Patient preferences for inflammatory bowel disease treatment objectives. Dig Liver Dis. 2017;49:152-6. doi: 10.1016/j.dld.2016.09.009.
50. Keefer L, Bedell A, Norton C, Hart AL. How should pain, fatigue, and emotional wellness be incorporated into treatment goals for optimal management of inflammatory bowel disease? Gastroenterology. 2022;162:1439-51. doi: 10.1053/j.gastro.2021.08.060.
51. Wellens J, Sabino J, Vanuytsel T, Tack J, Vermeire S. Recent advances in clinical practice: mastering the challenge—managing IBS symptoms in IBD. Gut. 2024;74:312-21. doi: 10.1136/gutjnl-2024-333565.
52. Panaccione R, Colombel J-F, Travis SPL, Bossuyt P, Baert F, Vaňásek T, et al. Tight control for Crohn's disease with adalimumab-based treatment is cost-effective: an economic assessment of the CALM trial. Gut. 2020;69:658-64. doi: 10.1136/gutjnl-2019-318256.
53. Lakatos PL, Kaplan GG, Bressler B, Khanna R, Targownik L, Jones J, et al. Cost-Effectiveness of Tight Control for Crohn's Disease With Adalimumab-Based Treatment: Economic Evaluation of the CALM Trial From a Canadian Perspective. J Can Assoc Gastroenterol. 2022;5:169-76. doi: 10.1093/jcag/gwac001.
54. de Jong MJ, Boonen A, van der Meulen-de AE, Romberg-Camps MJ, van Bodegraven AA, Mahmmod N, et al. Cost-effectiveness of telemedicine-directed specialized vs standard care for patients with inflammatory bowel diseases in a randomized trial. Clin Gastroenterol Hepatol. 2020;18:1744-52. doi: 10.1016/j.cgh.2020.04.038.
55. Hermans K, Webers C, Boonen A, Vonkeman HE, van Tubergen A. Patient-initiated follow-up supported by asynchronous telemedicine versus usual care in spondyloarthritis (TeleSpA-study): a randomised controlled trial of clinical and cost-effectiveness. Lancet Rheumatol. 2024;6:e848-e59. doi: 10.1016/S2665-9913(24)00229-7.
56. Baert F, Baert D, Pouillon L, Bossuyt P. Quality outcome measures project in IBD: a proof-of-concept benchmarking study in three Belgian IBD units. Acta Gastroenterol Belg. 2023;86:521-6. doi: 10.51821/86.4.11830.
57. Louis S, Lembrechts N, Pouillon L. Towards a Greener IBD-Care: Let's INTERACT! United European Gastroenterol J. 2025;13:276-7. doi: 10.1002/ueg2.12728.
58. Delen S, Jaghult S, Blumenstein I, Pouillon L, Bossuyt P. Framework of IBD Care Delivery Across Ages. J Crohns Colitis. 2024;18:ii55-ii66. doi: 10.1093/ecco-jcc/jjae093.