Conclusions: Our data show that biomarkers of tissue remodelling reflect endoscopically and clinically active CD. MMP mediated destruction of type VI collagen (C6Ma3) was associated with endoscopically active CD and could separate endoscopically active and inactive patients with 100% sensitivity and specificity. Decreased levels of endotrophin (PRO-C6) was associated with clinically active CD and showed an inverse relationship with HBI. This indicates that remodelling of type VI collagen measured by C6Ma3 and PRO-C6 can be used as surrogate markers of endoscopically and clinically active CD, and that fragments and signalling molecules released from type VI collagen are associated with pathological features of CD.

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The cost-effectiveness of biological therapy cycles in the management of Crohn's disease

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Background: The objective of this study was to compare the cost-effectiveness of two de-escalation therapies with continued combination therapy using infliximab and an immunomodulator in patients with Crohn's disease in clinical remission. The cost-effectiveness of different withdrawal strategies in which treatment is de-escalated in periods of remission is largely unknown. Published studies of related treatment strategies suggest that the cost-effectiveness is determined by the exact content of the treatment strategies compared and pharmaceutical prices. Thus, our objective was to examine the cost-effectiveness of continued treatment for patients with moderate–severe Crohn's disease (in clinical remission) with a combination of anti-TNFα (infliximab) and immunomodulator therapy, compared with two different withdrawal strategies (1) withdrawal of the anti-TNFα therapy and (2) withdrawal of the immunomodulator therapy, respectively, and to examine the significance of pharmaceutical prices for the estimated cost effectiveness.
Methods: A decision-tree simulation model (Markov type) was constructed mimicking three treatment arms: (1) continued combination therapy with infliximab and immunomodulator, (2) withdrawal of infliximab, or (3) withdrawal of the immunomodulator. Relapses in each arm are managed with treatment intensification. State dependent relapse risks, remission probabilities and quality of life weights were collected from previous published studies.
Results: Combination therapy was less costly and more efficient (produced better health outcomes) than the withdrawal of the immunomodulator, and more costly and more efficient than withdrawal of infliximab. The incremental cost-effectiveness ratio for the combination therapy compared with withdrawal of infliximab was estimated at SEK 755 449 per additional QALY. This is well above the informal willingness-to-pay threshold in Sweden (500 000 SEK/QALY). The estimated cost-effectiveness of the combination therapy was found highly sensitive to the unit cost of infliximab; at a 36% lower unit cost of infliximab, the combination treatment would become cost-effective. The qualitative content of these results were quite robust to changes in the clinical effectiveness and the quality-of-life figures adopted in the calculations.
Conclusions: Combination therapy using a combination of anti-TNFα (infliximab) and immunomodulator is cost effective in the treatment of Crohn's disease compared with treatment cycles in which the immunomodulator is withdrawn. Combination treatment is not cost effective compared with treatment cycles in which infliximab is withdrawn, at current pharmaceutical prices. This conclusion is likely to be altered as the price of infliximab continues to decrease.

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Retrospective investigation of tacrolimus combined with an anti-TNFα antibody as remission induction therapy for refractory ulcerative colitis: efficacy, safety, and relapse rate

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Background: Combined therapy with tacrolimus (TAC) and an anti-TNFα antibody is used to induce remission in ulcerative colitis (UC) who have not responded to monotherapy with either drug. We evaluated the efficacy and safety of combined therapy, as well as the relapse rate.
Methods: The combined therapy was performed to induce remission in UC showing an inadequate response to monotherapy with TAC or an anti-TNFα antibody. The following items were assessed retrospectively: (1) clinical characteristics, (2) the remission induction rate, (3) the relapse rate, and (4) adverse events.
Results: Combined therapy induced remission in seven of the 12 patients (58.3%). There were no significant differences in clinical characteristics between the patients with and without the successful induction of remission. However, female patients tended to be more frequent in the remission group than in the non-remission group. The remission group also showed trends of a lower clinical activity index (CAI) on admission, and before combined therapy, and a lower total dose of prednisolone during hospitalisation. The 1-year relapse rate was 33.3%. Adverse events due to combined therapy included renal impairment ($n = 2$), tremor ($n = 2$), influenza ($n = 1$), and a positive cytomegalovirus antibody test ($n = 3$). None of these events were serious.
Conclusions: The combined therapy was effective in more than half of the patients with refractory UC who had not responded to mono therapy. Our findings suggest that combination therapy may be an option as a new third treatment for refractory UC.

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IBIS-Q (IBd Identification of Spondyloarthrytis Questionnaire): a new tool to detect spondyloarthritis in inflammatory bowel diseases

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